expected rate of return on real investment. The main purpose for suggesting TOSTAB, namely to make short-term foreign exchange transactions less attractive, appears to remain unaffected by Steindl’s critique. It can be assumed that the outflow of 50 billion DM shortly before and after the introduction of the 10% tax on income from interest (withholding tax) as from 1st January to 1st August 1989 in West Germany would have been discouraged, if a TOSTAB at a rate of e.g. 1/2 percent had been effective. This capital movement out of West Germany was generously serviced by the banking system. A large part of the money transferred came from the non-speculative investors (savers). As long as the fundamentals of an economy are characterized by superior competitiveness, a substantial outflow is unlikely not to be reversed in the medium-term. The essence in TOSTAB is intended to improve the conditions of the real economy vis-à-vis the financial sector; Steindl’s argument does not prove the contrary to be true.

TOSTAB is not regarded by the authors as a panaceas. They are aware that it offers no shield against a capital flight which is caused by a fundamental disrupt in the political and socio-economic conditions of a country. It is a device designed for more normal times. TOSTAB is certainly to be regarded as inferior to a cooperation between surplus and deficit countries against short-term speculation, as again suggested by Professor Steindl. Its advantage is, however, that it can be introduced unilaterally by a single surplus country even before a multilateral agreement can be achieved.

The Structural Evolution of Financial Systems in the ’80s: From its Determinants to its Possible Outcomes *

Introduction

The aim of this article is to provide an explanation of the structural and institutional changes that have been taking place in financial systems throughout the ’80s. They are not the result of a progressive evolution unalterably leading to a superior stage of financial development. Rather, they are largely the outcome of the crisis of a specific national model, that of the extreme specialization of financial intermediaries set up in the U.S. during the ’30s.

The analysis of the structural dynamics of financial systems here provided is based upon a theoretical framework which is rather different from those currently used to deal with money and financial intermediation. This framework has been built by joining ideas and pieces of analysis selected from an array of literature which includes contributions by Marx, Schumpeter, Wickell, Keynes and subsequent elaborations by post-Keynesians and “circuit theorists”. These contributions are well known but they have never been put together into an analytical scheme aimed at understanding the dynamics of financial

* This article is a shortened version of a paper prepared for the conference “Finance and Enterprise in Historical Perspective” held in Torino, Sept. 28 - Oct. 1 1989. Many of the ideas offered here are the result of participating, as a director, in the research group on “Financial Systems: Theory and Comparative Issues” which was formed in 1983 by the Universities of Florence, Siena and Modena (FESIMO Group). I am grateful to all who took part in the stimulating discussions and to Gianluigi Ciocca for the preparation of this paper. I wish to thank Pierluigi Ciocca, Jan Kregel and the anonymous referees for comments. Nevertheless, I remain responsible for this draft.

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1 Very recent contributions aimed at systematizing the latter schools are ROGERS (1987) and GROSSMAN-MISCH (1988).
systems. This scheme will be outlined in Section I before applying it in Section II to the analysis of the recent structural evolution of financial institutions and of their current trends.

Section I: the analytical framework

1. Four basic propositions

Stripped to the bone, the foundations of monetary theory underlying this analysis of financial systems are formed by four propositions which are outlined below:

i) Monetary and financial institutions are important since they are expressions of capitalism, an economic organization which cannot be other than a monetary economy. This means that the main characteristics of the financial system are derived from the working mechanism (production and reproduction) of capitalism, and not from the services which "financial firms" offer to rational and maximizing individuals according to the general economic equilibrium model (macro approach vs. micro approach).2

ii) With reference to the production mechanism, money should be considered as credit which is necessary for obtaining the product and not as a stock for facilitating exchanges of an already determined product.3

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2 This proposition expresses the common conviction of Marx, Schumpeter and Keynes that the links between money, finance and the functioning of the economic system have to be found in the organization of production (monetary theory of production). In his famous work "The Theory of Capital" (1867) Marx clearly states: "Money is the necessary link between production and capital, the thing which makes the transition from the mass of individual capital into the capital of the individual." (Marx, 1867). In this context, money is seen as a means of facilitating exchanges between different individuals and entities, allowing them to acquire the goods and services they desire. Thus, money serves as a mechanism for coordinating economic activities and facilitating transactions in the economy.

3 This proposition, already clear in the critique of Marx to Fullerton, was taken up by Hilferding (Die Finanzkapitalist) with the distinction between circulation credit and capital credit. Similarly, Schumpeter distinguished between normal credit and abnormal credit which governs the definition of the capitalist as an entrepreneur, and not just intermediaries of purchasing power. Keynes deals with this question specifically in his debate with Ohlin and Robinson on the "finance motive," which is then presented by the post-Keynesians for a survey of the recent debate on the "finance motive" (see Guadamur, 1984). Money as credit determined by production is the manifesto of the "circuit" theories.

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iii) Credit cannot be considered as a good whose price (the interest rate) is determined by supply and demand.4

iv) The rate of interest is a monetary phenomenon determined independently of the process which generates profits in the real sector.5 This means that there are no "natural forces" which govern the interest rate, a conventional phenomenon. Its value varies with fluctuations in liquidity preference than with changes in the money supply (Kregel, 1984). Liquidity preference is the expression of the "degree of confidence" which determines the amount of the premium to be offered to induce people not to hoard (ibidem). The degree of confidence is affected by the amount of certainty-uncertainty generated by overall economic policy (and not only by monetary policy).

These four propositions are very broad, and convey more of a vision than a theory. But from these fundamentals we derive specific implications to be used in analyzing the financial systems developed in the following paragraphs.

2. Credit and financial intermediation

Credit is not provided by the market, but rather by the banks which administer the payments system acting as "social accountants."6 Thus, it is necessary to distinguish between credit and what can be called "financial intermediation." The former generates purchasing power through the creation of deposits that constitute means of payment. The latter transfers already existing purchasing power from lenders to borrowers through both deposits collected and invested that do not constitute means of payment and through services rendered in the markets in which funds are transferred by the purchase of securities.

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4 This proposition, which clearly results in Wicksell's case of a "pure credit economy" (Interest and Prices), was recently taken up by Stiglitz-Wise (1988). In this respect, the imperfections of information approach converges with the Keynesian and post-Keynesian thesis of "credit rationing".

5 See Roemer (1989) p. 169. On the rate of interest as a conventional phenomenon see Keynes (1936) and for similarities with Marx see Panico (1985).

6 This role of banks has been especially highlighted by Schumpeter in his post-Kruss book Die Waren des Geldes whose Italian version (G. Naso, editor) is forthcoming thanks to Cassa di Risparmio di Torino. This very same role of banks has also been recently taken into account by Stiglitz-Wise.
In financing productive activity, credit can completely substitute financial intermediation. This substitution occurs in Wickaell's pure credit economy or in the overdraft economy of Hicks (1974),\(^7\) However, reverse substitution, i.e., credit being substituted by financial intermediation, encounters some limitations. Schumpeter's theory and Keynes' finance motive maintain that the firms' need for liquidity can be satisfied by the market and need not be restricted to bank credit, only if the purchasing power accumulated in the form of stocks through an increase in the velocity of money and in the interest rate from other uses can be diverted. On the other hand, if we want to resort to "external" money, created by external accounts or treasury financing, its use in financing economic activity is contingent upon the government deficit, external accounts, and central bank policies and in any case meets with limitations stemming from information imperfections. Consequently, although there is competition between credit and financial intermediation, the relationship between the two is asymmetric, since it is inconceivable for financial intermediation to completely substitute credit. And, thus neither is it possible to suppose a complete substitution of banks by markets.

In this perspective, banking disintermediation, an important phenomenon of the recent structural transformations in the financial systems, is not an indication of market superiority over banks. Rather, its origin must be sought after in accidental historical factors.

3. Customer vs. market relationship

Credit is provided on the basis of customer relations utilizing private information deriving from the administration of the payments system. This information determines not only the understanding of the borrowers businesses but also the Keynesian degree of confidence which serves as shield against the uncertainty dominating the estimates of future yields in the firms (Nardozzi 1986).

Credit tends to prefer uses at prefixed values, and thus operates, through rationing, generally in a fix-price system (Goodhart 1987, De Cecco 1986). Financial intermediation employs instead auction markets using public information (even if often integrated with the

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\(^7\) Hence the French "overdraft" school that has some contact with the "circuits" theorists and the post-Keynesian theorists; see Lavois (1985) and Marcic (1988).
which Tobin (1984) calls "information-arbitrage efficiency" from "fundamental valuation efficiency". The first, which characterizes the large markets of the major financial centers, does not imply the second. Thus, we see a confirmation of Keynes' thesis (1936, Ch. 12) according to which it is precisely stock market liquidity that demands a "convention" which promotes informational but not fundamental valuation efficiency.

For the financial system as a whole, however, it is necessary to refer to Tobin’s "functional efficiency" rather than to "allocative efficiency" (in a static sense) which loses its significance if taken out of the Walrasian context. But "functional efficiency" has many faces. Under the quantitative profile of financing capital accumulation, the financial structures in which market-orientation prevails over credit seem less efficient than those in which credit prevails.10 And less developed and liquid stock markets offer greater financing flows to firms than those that are more developed (Nardozzi 1986a, IRS 1988). In a qualitative light, based on the rate of innovation and ensuing performances of industrial structures, Dosi (1988) has recently argued that "credit-based" systems are less capable than "market-based" systems of promoting the exploration of new technological paradigms when "the innovative opportunities are high and the innovative competences are quite diffused throughout the economy". Finally, in considering the function of capital control in financial systems, Stigliz (1985) maintains that "universal banking" is more efficient than a "market-based" system.

If all these results, which already leave a wide margin for uncertainty in evaluating the merits and shortcomings of different financial structures, are combined with considerations concerning stability, the question of the optimal financial structure becomes even more unlikely to be solved once and for all. We do not need to recall the vast amount of literature on the subject to assert that as a physiological characteristic of financial systems, instability is an integral part of the analytical framework considered earlier. As well, instability takes on different forms according to the financial structure, the structure of the productive system, the relationship between banks and industry, and the goals and instruments of monetary policy. Thus, even stability does not lend itself to measurements which are independent of space and time.

6. And of thinking in terms of irreversible progressive structural tendencies of financial systems

These analytical points on evaluating the performances of financial structures agree with the results of historical research, at least in the way they are summarized by Cameron (1975). They suggest comparisons between different financial structures, based not on reference to some optimal (or "natural") system, but on the evaluation of comparative advantages and disadvantages weighed against the characteristics (and economic policies) of different economies.

7. Models of financial systems

If we cannot look at the different financial systems through the reference to an optimal financial structure, it is convenient to refer to models of financial systems as defined by the whole of the financial structure and its institutional and legal setting.

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10 For past history see Gerschenkron's argument; for present comparisons see Conti (1987), Mayer (1989).

11 See also Ciaffa (1982).

12 The "second-best" theorem applies to this argument; see Stauffer (1989).
This is not just a simple tautology because the model concept allows regulation to be considered an integral part of the financial system, and not just as a set of restrictions imposed from the outside on a system that, if left alone, could work freely (Nardozzi 1988).

Looking at the financial systems of the major economies as they were in the '70s, we may state that they represented different models with performances whose order along a scale of preference could be considered changeable, instead of differing degrees of approximation to some optimal financial structure. These models were placed in a range, the opposite ends of which were the U.S. and Germany.13

Looked at from the perspective of our analytical framework, the American model before deregulation was the most meticulous application of the distinction between credit and financial intermediation, while the German model was the opposite.

In the American model, credit activity was carried out by commercial banks which operate the payments system. Financial intermediation was performed both by organizations that collected deposits not used as means of payment (thrift institutions) and by financial non-depository institutions.

The ban on commercial banks to operate in the securities market blocked the possibility of taking advantage of the strong position determined by credit activity that combines the privileges of the creation of money with those of managing payments. Such a ban thus avoided subjecting growth of the capital market to banking activities beyond the melding of financial and monetary roles, a potential generator of financial instability. This model primarily entrusted the market with allocating financial resources, and legislators were understandably concerned with allowing its growth to continue, unchecked by the competition of banks. The prohibition of earning interest on checking accounts and the regulation of maximum rates returned on savings accounts (Regulation Q) worked towards this goal (Evans 1984).

The regulation of the capital market is necessary complement to legislation so narrowly limiting the role of banks. Introduced by the Law establishing the SEC, regulation of capital markets is aimed at ensuring that prices are correct indicators of the values they represent (mandatory disclosure) and that the behavior of the intermediaries does not undermine the trust in the markets (professional honesty rules, discipline of insider trading, etc.).

If the American model exalts the contractual relations typical of the capital market, the German model highlights the importance of relations typical of credit. The "universal bank" combines in one body all the functions that in the American case are carried out separately by banks and specialized intermediaries. For the German bank, financial intermediation is the natural extension of its credit activity. The two activities mutually support each other in that information deriving from the management of payments is directly (and internally) used for financial intermediation, while the accompanying shareholding of firms and the abundant use of proxy votes reveal an ample flow of information on the creditworthiness of the financed companies (through banks participating on administrative boards).

Consequently, the capital market is dominated by banks. The capital market acts as a tool for maintaining the relationship between bank and industry that is characteristic of universal banking, and not, as in the American case, as an alternative. Contractual relations that are established in the market are actually the outcome of customer relations characteristic of banking. Thus, the allocation of financial resources is based not on information revealed to specialized intermediaries and the market by transparency, but rather on the bank's knowledge of the firm and its control capability. This difference makes the American philosophy of regulating the capital market completely alien to the German model.

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13 The following summary description of the models extensively drawn from Nardozzi (1988) and is based on specific research work by Benston (United States) and Barzilai (Germany), contained in CAMERAS DE DEPÓSITOS (1988).

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Section II: the structural changes of financial systems in the '80s and their possible outcomes

1. Some well known facts

Since the 1970s the most noteworthy event which has occurred is the closing of the gap between financial system models, with the overshadowing of national specificities rooted in the history of individual countries. This "institutional despecialization" has accompanied the widespread phenomenon of credit despecialization, which has considerably blurred the distinctions among intermediaries and among market segments.
The current tendency to surmount national specificities has taken place through four well-known structural changes which have touched, to different extents, the major financial systems:

i) A wave of financial innovations;  

ii) A "securitization" (in the broad sense, development in financial intermediation through markets to the detriment of bank credit). This development was brought about by competition against banks, but has also taken the form of banks' substituting credit relations with market relations on the part of banks (securitization in the strict sense);  

iii) Internationalization of financial systems and globalization of markets;  

iv) An extended deregulation process designed to overcome the segmentation of financial systems, to develop the markets, and to increase their efficiency.

2. And their interpretation as the outcome of a "natural evolution"

All of these facts seem to strengthen the vision of a progressive and one-way evolution of financial systems that sees the surpassing of individual peculiarities of the models as the market affirmation, as the regulator of financial flows, delayed until now by deviating historical contingencies and/or regulations. It is the assertion, then, of a more advanced single "market-oriented" model like the Anglo-Saxon one. This thesis is very clearly stated in the "stages of financial development" theory by Rybczynski (1984, 1985) which takes up the deterministic vein present in the historical studies by Gerschenkron and in the statistical studies by Goldsmith.

At the heart of Rybczynski's theory is the assumption that market relations are superior to the customer relations of bank credit. He asserts the existence of a "natural evolution" of the financial system which moves through the progressive stages of "bank-oriented", "market-oriented", and finally "strongly market-oriented" structures (where financial institutions increasingly dispose of and trade in their assets – the process described as securitization – and where financial risk-hedging markets play a predominant role). This "natural evolution" creates a "virtuous cycle of advance" since "...by improving the risk-avoiding and risk-bearing capacity of an economy the evolution of the financial system helps to increase capital formation, savings and economic growth; this in turn assists the further transformation of the financial system, raising again risk bearing ability, investment and saving – and so on in a virtuous circle of advance".  

According to Rybczynski, current tendencies confirm this natural evolution towards more advanced financial structures because they show the shift of systems that were already at the "market-oriented" stage (United States, United Kingdom) towards the more advanced or "strongly market-oriented" stage; they also show "bank-oriented" systems (France, Italy, Germany) to move towards the "market-oriented" stage.

It would be superfluous to emphasize the contrast between this interpretation of recent tendencies and the analytical framework outlined in Section I. On the other hand, overcoming national specificities, and developing and perfecting the markets seem to be occurrences contrary to that framework, which, instead, explains the persistence of different models of financial systems. However, there are several factual, methodological and theoretical points that cast doubts over the possibility of providing a deterministic interpretation similar to that of Rybczynski.

The following sections will offer an explanation of these points.

3. A different interpretation

We shall begin with a view that is widely shared but perhaps not dealt with explicitly enough in the literature on recent changes in the financial systems: the importance of the history of the American financial system in promoting the four changes listed in the previous section. Securitization, deregulation, and the invention and development of new financial instruments and related markets, all originated in the United States and/or were the consequence of international activities developed primarily by the major American banks.

The importance of the American financial system in generating new trends and passing them on to the rest of the world is not surprising, given the country's size and its leadership role. And it is a

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14 For a taxonomy see IIS (1986).
15 For a survey of facts and theories, see Gardner (1987).
historical constant which De Cecco has continued to call to our attention for some time.

This view seems to oppose the approach commonly used in analyzing the dynamics of financial systems. If the world financial system is composed of unequal partners (according to the approach of J.H. Williams followed by De Cecco 1976), we should rather analyze the dynamics of the dominant system than define the general tendencies.

How should this be done? From the approach outlined in Section 1, a suggestion arises: that of evaluating the coherence of the model. As we have seen, the configuration and regulation of a financial system allows for several solutions, and it is not possible to identify an "optimal" one. Thus, the forces which determine the dynamics cannot be looked at as tendencies towards a "natural" or "optimal" configuration. Rather, they must be found in the logic that holds together the model (internal coherence) or in the relationship between the model and the environment in which it operates (external coherence).

According to this dialectic approach, a model tends to change when it contains elements that lead to its overcoming (internal incoherence factors) or when it becomes incompatible with the surrounding environment (external incoherence factors). Applying this approach to the models of the United States and Germany examined earlier, it seems possible to deduce that while the German model is incoherent with the development of financial intermediation based on the markets, the American model is not. In the German case, such development undermines the basis of customer relations typical in universal banking, by providing firms, on the one hand, with the alternative of applying to the market for long-term financing, and, on the other hand, by making the firms' submission of their permanent holdings to banks less justified (Steinher--Huvener 1989).

The American model, as it was in the 1970s, was certainly coherent with the existence of a large market in which financial intermediation could take place. However, this does not mean that such a model was also coherent with developments in financial intermediation which question the primary role of banks. More specifically, the "pure" specialization principle (according to which banks are not admitted to market financial intermediation) is actually an exaltation of the importance of banks. Thus, it cannot reach the point of contradicting its own premises. In the words of the President of the Federal Reserve Bank of New York, E. Gerald Corrigan: "While one can readily picture a financial system in which the role of the securities markets is very limited, one is hard pressed to visualize a contemporary financial system in which credit intermediaries are not a major feature of the financial and economic landscape. To put it directly, the credit intermediaries provide certain functions which cannot be as readily performed by the securities markets, at least as we know them." 18

Thus, a massive substitution of credit by financial intermediation relationship based on market instruments poses internal coherence problems not only to the German model, but also to the American model. The difference between the two is that, as far as structural dynamics is concerned, while the first model inhibits innovations which could shake its foundations, the second model encourages them. In fact, in the German case, universal banking dominates financial intermediation by heightening credit activity and curbing the development of the alternative financial market instruments. In the American case, banking was blocked, in the price competition within the financial system, by the rigid regulation due to full realization of the specialization principle. This encouraged the competition to introduce new financial instruments that tended to develop markets and financial intermediation to the point of excessively constraining banks. Thus, in the American model there was an internal incoherence factor stemming from the fact that the competition between credit and financial intermediation can encourage the development of market instruments and markets that eventually become contradictory to the specialization principle.

On the basis of these considerations, we can see the facts mentioned earlier triggered by the incoherence of the American model. It is a question of internal incoherence in which external incoherence factors were implanted, such as the explosion of inflation and rising interest rates brought about by Volcker's monetary policy.

An exact verification of this thesis requires a reconstruction of recent history of the American financial system considerably larger than what it is possible to do here. But a few essential points can be mentioned.

17 For the difference with Kanu's (1981) "regulatory dialectics", see NARDOZZI (1988).

The reactions of major American banks to the segmentation of the American financial system after the banking reforms of the 1930s were diverse and have been brilliantly described by De Cecco (1976, 1984, 1985). Among these were several innovations preceding those of the 70s like CDs (Chico corp 1961), short-term promissory notes (FNB of Boston 1964) and developing the Eurodollar market as a fund-collecting source (since 1966). These innovations (new instruments and new financial markets) were the outcome of internal incoherence in the American model. They answered the need to defend the positions of the major commercial banks which were constrained in the expansion of collecting funds by Regulation Q (Eisenbeis, 1982). On the other hand, they ended up promoting market financial intermediation that competes with credit, which is the very distinctive feature of banks.

In this system, already shaky due to internal incoherence, the turbulent effects of the external climate were implanted: rising inflation and rising interest rates. These external factors weigh heavily on credit activity, acting on both liabilities and assets of banks. Regarding the first, even for the most liquid deposits, depositors try to obtain interest rates that compensate for inflation. This requirement is upheld by non-banking financial intermediaries (Money Market Mutual Funds).

The advantages of deposits over securities (absence of price risk and low transaction costs) have been reduced because of lowering transaction costs and innovations in techniques and instruments for covering risk that, for securities, offer good risk-return combinations. This is one reason for the extraordinary growth in institutional investment, through which these advantages can be reached (Cumming, 1987).

As to the assets, banks themselves have limited the supply of traditional credit openings (as they had become too risky, thus requiring their own capital, and costly, due to rate fluctuations) in favor of financing carried out by market instruments (securitization).

The extension of financial intermediation based on market instruments which is detrimental to the traditional banking relationships characteristic of credit activity is the reaction by the American financial system to the rigidity of the model conceived in the 1930s. This response has undermined the foundation of that model: the segmentation of the financial system deriving from a meticulous application of the specialization principle. Deregulation is the final outcome of incoherence in the American model. The DDMCA of 1980 and the Garn-St. Germain Act of 1982 constitute an initial overcoming of segmentation in the financial system. Deregulation is now going on with the re-settlement of the whole financial system, as outlined by Corrigan (1987), which is the ultimate overcoming of the specialization model in favour of the junction, even if within bank holding companies, of credit and market financial intermediation.

4. And its implications on the evaluation of current tendencies

According to the interpretation sketched above, these tendencies are not the outcome of a "natural evolution" that unalterably leads to the market as regulator of financial flows. It is not a question of "natural" evolution since it is largely the outcome of the crisis a national model, that of the United States. This evolution does not even signify the triumph of the market since it stems from overcoming the model that most excelled the market's role in the financial intermediation reining in banks. In the 1970s and 1980s, it is the American model that enters into crisis, and not the opposing German model which excels the role of banks over the market.

Of course, in the meantime, financial intermediation which passes through the market has developed greatly. But this development, along with the internationalization of financial relations, has confirmed the importance of banks which was slipping in the American model of rigid specialization. As De Cecco (1986) points out, it is only a means and not an end.

The financial revolution which we have witnessed has led to a convergence in the models of various financial systems, which can briefly be described by saying there is more banking in the once "market-oriented" models and more market in the once "bank-oriented" models. Today we are moving towards a "transnational model" (not necessarily linked to the international banking) in which the major German universal banks are confronting the major banking and financial holdings, which originated in countries with specialization models but are now also spreading in France (archipels bancaires) and in Italy (gruppi politfunzionali). It is a model which unites two previously separated features: the importance of the bank as typified by the old continental European models, and the importance of the market, as typified by the old Anglo-Saxon model. Thus, the
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