Schumpeter on money, banking and finance: An institutionalist perspective

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Introduction

In this paper, we provide an institutional interpretation of Schumpeter's analysis of money, banking and finance. This interpretation is founded on an overall investigation into Schumpeter's writings addressing those issues from different perspectives.

In section 1, we discuss the widespread evolutionist interpretation of Schumpeter and rather assert an institutionalist perspective. In support of our interpretation, we highlight the specific role played by economic sociology in Schumpeter's methodological approach.

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Economic sociology, indeed, provides the foundations of a theory of institutions and institutional change, which is often undermined by the usual evolutionary interpretation. We believe, however, that taking this dimension seriously into account may have implications for our understanding of economic and institutional change in Schumpeter.

Section 2 illustrates this general statement by focusing on Schumpeter's analysis of money, banking and finance, and their respective roles in the process of economic development . Starting from the angle of the three pedagogical stages of Schumpeter's analysis of economic development – the circular flow, the steady-state and the development cases – we show how institutional change is progressively introduced into those respective cases and emphasize the leading role of the banking system in the overall evolution of the financial system. Two functions of the banking system will be specifically pointed out. On the one hand, the banking system, through its function of credit creation, is seen as the 'ephor' of the capitalist system, as an institutional setting pre-existing to it and rendering its expansion possible. On the other hand, the banking system face inner tensions due to transformations taking place within the economic system and must adapt to those changes. In this perspective, the banking system may be conceived as a vector of innovation in the field of banking and corporate finance, which, similarly to the real sector, is ruled by the law of creative destruction.

1. Schumpeter's vision of economic development: an institutionalist perspective.

Schumpeter's work has been often taken as reference for most evolutionary economists (see for instance, the emblematic 1982 book of Nelson and Winter). In the following, we will however argue that Schumpeter's hesitation to use the evolution metaphor is not incidental but gives us some indication of what he meant by economic evolution. For us, it is clear that Schumpeter's vision of economic development, even if it may lend itself to some to-day evolutionary explanations of economic change, cannot be understood without taking the complementary and necessary role of institutional changes seriously.

1.1. Schumpeter and the evolution metaphor

In Schumpeter's writings, we find many arguments against the use of the evolution metaphor. At his epoch, this metaphor was invading many fields of social sciences and Schumpeter was very keen to warn the economists against the biological analogy which the term 'evolution' could imply[2]. As early as in *Das Wesen…*, Schumpeter refers to Marshall's attempt at making use of such analogies, noting that this did not produce the result one could reasonably have anticipated but rather created "the danger of confusion" (Schumpeter 1908: 538).

In a 1917/1918 paper entitled 'Money and the Social Product', Schumpeter also makes little secret of his hostility against his contemporary Austrian masters, stating that their 'causal-genetic' explanations provide striking examples of the danger of 'evolutionary' reasoning: "[T]he historical beginnings of a phenomenon by no means always show it in its simplest and purest form, so that an attempt to get at the essential nature of the problem by genetic treatment may be easily misleading." (Schumpeter 1956 [1917/1918]: 157).

Later, in a recently discovered article from 1932 entitled "Development"[3], Schumpeter also makes it clear in a Max Weberian manner that he wanted to protect himself against an

[2] This position comes out most clearly in the first German edition of his *Theorie der wirstschaflichen Entwicklung* (1911/12), which has recently been republished by Duncker&Humblot in Berlin.

[3] Schumpeter's article on "Development" was written by the author as a contribution to the Festschrift for Emil Lederer in 1932. It was translated by M. Becker and T. Knudsen in the *Journal of Economic Literature* in 2005 (vol. 43:1, pp. 108-111; Introduction of this volume jointly written by M. Becker, H. Eßlinger, U. Hedtke and T. Knudsen).

unscientific connotation, this time, of the term *Entwicklung* (development), with value judgments of progress:

> "(…) [T]wo (…) associations (…) are responsible for the scientific discredit of the term 'development' (…). These two associations can be characterized by the terms 'faith in progress' and 'evolutionism'." (Schumpeter 2005 [1932]: 119)

Referring to the Darwinian or Mendelian types of theory of descent, he notes, in the same article, that:

> "[i]t always fails when it comes to the inaccessibility and indeterminacy of novelty and of the leap, even more so when such a theory of descent acknowledges the leap and names it, e.g. sport or mutation. It always runs into logical limits, or in other words, the fact that our logic is a logic of the adaptation process which can only deny or dismiss development." (Schumpeter 2005 [1932]: 118)

In sum, for Schumpeter, social science, in general, and economic theory, in particular, must remain value-free. In passing, this feature constitutes a strong point of convergence between Schumpeter and Max Weber[4]. Moreover, a theory of development has to face the problem of novelty seriously,, which requires a logic which goes beyond the mere logic of adaptation displayed by Darwinian or Mendelian types of evolutionary theory.

In his *Theory of Economic Development*, Schumpeter indeed rejects the idea that the whole of mankind would show "some kind of uniform unlinear development", as assumed by the German Historical School personified by Roscher as well as the evolutionary thought centred in Darwin, but also psychologist explanations which consist in "seeing more in motives and

[4] See, for instance, W. Powell (1996).

acts of volition than a reflex of the social process" (Schumpeter 1934: 57). He adds, thus reinforcing his claim for value-free economic theory, that we must get away from evolutionary ideas that are surrounded by "the reproach of unscientific and extra-mysticism" as well as "of dilettantism" (ibid: 58).

From what precedes, it is clear that Schumpeter is careful about the use of the evolutionary metaphor to depict the process of economic change.

More precisely, it is not so much the terms 'evolution' or even 'development' that Schumpeter rejects but rather the tendency in the history of ideas to associate these terms with value judgements[5]. His dithering in time concerning the use of the English terms of 'evolution' or 'development' shows his caution and the difficulty he finds to describe properly what he has in mind. Not incidently, in a letter to Stewart S. Morgan of May 18, 1934, two months after he wrote the preface to the *Theory of Economic Development*, Schumpeter refers to his book as the *Theory of Economic Evolution* (see U. Hedtke and R. Swedberg 2000: 267)[6]. Besides, in his subsequent *Business Cycles*, and more precisely in chapter IV ("The Contours of Economic Evolution") Schumpeter takes up the term 'evolution' as a key ingredient.

Besides, Schumpeter raises an additional argument against evolutionary explanations of his time in the field of natural sciences: the fact that they are unable to deal in a satisfactory manner with the problem of novelty[7].

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[5] See Schumpeter 1983 [1954], pp. 85–98.

[6] We are grateful to the referee for this indication.

[7] This issue is addressed by M. Becker, T. Knudsen and J. March (2006). They first note that Schumpeter's opinion of Darwin's evolutionary theory is not entirely clear, because it depends on an interpretation of the few remarks he made on the subject in his writings (Becker, Knudsen and March 2006: 356). In the above quoted passage from *Development* (2005 [1932]: 118), Schumpeter acknowledges the value of both Darwin's and Mendel's theories as explanations of incremental change but however dismiss both theories as explanations of novelty and discontinuity. To put the matter in a nutshell, Schumpeter "saw clearly that 'mutation', as that term is normally used in Darwinian evolutionary theories, is less an explanation than a label for the inexplicable." (ibid: 357). Secondly, they rightly point out one of the major challenges of Schumpeter's theoretical endeavour: to explain novelty as arising endogenously in a routine-based system. Among the various routes that Schumpeter

Now, regarding economic evolution, Schumpeter makes clear that this phenomenon involves the element of novelty or change as a crucial factor. In his own terms, “evolution is a disturbance of existing structures (…) more like a series of explosions than a gentle process, through incessant transformation” (Schumpeter 1939/ I: 102). Since development is defined as a change from one equilibrium (Schumpeter 1934, 1939) or ‘norm’ (Schumpeter 2005 [1932]) to another in such a way that the process of change or transition involves discontinuity, its analysis requires, according to Schumpeter, a different logic from the one conveyed by the logic of adaptation or incremental change. Furthermore, as Schumpeter puts it, “development is a problem, not simply of the facts but of our mental apparatus.” (Schumpeter 2005 [1932]: 117).

To sum up and at first sight, Schumpeter’s conception of economic evolution, can hardly be reconciled with Darwinism, even though no Darwinism copyright can be imposed on the word ‘evolution’ (Hodgson and Knudsen, 2006: 2). In some sense, some of Schumpeter’s objections to Darwinism are still topical. For instance, the idea that human intentionality is inconsistent with the ‘blind’ process of Darwinism is not so far from Schumpeter’s insistence on the fact that innovation is the result of the activity of “New Men” (Schumpeter 1939/I: 96) and not the result of mere adaptation from already existing production structures, following some kind of stochastic process[8].

identified in order to explain novelty (character traits of entrepreneurs, new combinations generated by production functions, interaction effects between different spheres of the social realm and inspiration from theories of evolution), no one proved to be entirely satisfactory. Related to the explanation based on new combinations, Becker, Knudsen and March notes that Schumpeter’s interest in Mendel and Mendel’s discoverer de Vries (as assessed by an interview with Wofgang Stolper, 4 August 2001, at his home in Ann Arbor, MI) “might indicate that he hoped for the identification of some regularity underlying replications, such as the Mendelian combinatorics of reproduction”, in order to provide a more precise inheritance mechanism than the word ‘combination’ (ibid: 357).

[8] In this respect, Winter’s argument is not that far from Schumpeter’s, insofar as he also rejects, in a Penrosian way, the use of biological analogies in economics. He however is more optimistic about the possibility of replacing “the idea that mutations are inexplicable or random events”, with “ideas that associate mutations, for the most part, with intentional, motivated change.” (Becker, Knudsen and March 2006: 359).

The aforementioned remarks concerning Schumpeter's attitude towards evolutionism do not however entirely preclude an evolutionary type of interpretation of Schumpeter's analysis of economic change. Given the great variety of evolutionary explanations of economic change and the lack of clarity of the present 'evolutionary economics' project, we will not explain in detail why and how those explanations could be reconciled with Schumpeter's original message. To put the matter in a nutshell, we agree with Hodgson and Knudsen that any evolutionary economic explanation involves some Darwinian principles, such as the principles of selection, variation and inheritance as basic ontological features. However, this does not mean that a generalized Darwinism is enough to explain the processes of social evolution. In sum, it provides more a "meta-theoretical framework than a complete theory" (Hodgson and Knudsen 2006: 17). From this very restricted viewpoint, Schumpeter's analysis may be considered as 'evolutionary'. However, we argue that this interpretation is, to say the least, incomplete, or even misleading, if we take into account Schumpeter's methodological specificity, and in particular, the importance he attaches to economic sociology[9] .

1.2. Schumpeter's conception of economic sociology: the role of institutional factors

As well-known, Schumpeter's method is clearly defined in Chapter 2 of his *History of Economic Analysis* (1954), where he distinguishes the three 'techniques' – history, statistics and (economic) theory - that together constitute 'economic analysis'. In addition to these three techniques, there is economic sociology which constitutes a fully-fledged component of his methodology. The arguments in support of Schumpeter's claim for the introduction of a supplementary technique in the toolbox of economists may be summarized as follows.

[9] For an assessment of the importance of economic sociology in Schumpeter's work, see Shionoya (1997), Swedberg (1989, 1991).

The reasons why economic sociology should constitute a fully-fledged field of economic analysis and be dealt with separately from economic history or economic theory are outlined by Schumpeter.

On the one hand, he argues that the institution of property and freedom of contract or the introduction of any kind of government regulation are not only a concern of economic history but they constitute social facts that shape the society and thus make economic history a kind of generality, a type or a model. From this perspective, economic sociology can be described, in accordance to Schmoller's definition as a 'theory of generalizing history'. In a paper he dedicated to Schmoller, Schumpeter notes that "economic theory usually contains statements about 'social institutions', such as 'property', 'inheritance' and 'the family', and that theses institutions are 'partly economic' and 'partly non economic in nature'. Social institutions therefore cannot be analysed with conventional economic theory; pure economic theory is only applicable to topics such as value, price, and money. Something else is needed – a 'theory of economic institutions, basically within economic theory'. And this something else is economic sociology" (Schumpeter 1926, quoted by Swedberg 1991: 46). As Shionoya puts it nicely: economic sociology is therefore conceived by Schumpeter as a "bridge between history and theory" or as a "compromise between the generality meant by theory and the individuality meant by history" (Shionoya 1997: 200). This methodological feature however needs further clarification in order to give full support to our institutionalist interpretation. In particular, economic sociology is not conceived by Schumpeter as comprehensive method for analysing the process of sociocultural development, but rather consists in an approximation insofar as it summarizes the set of interactions that occurs at different levels of social life in order to focus on the institutional factors that are closely linked with economic activity. In other terms, Schumpeter explicitly restricts the scope of economic sociology to the study of institutions (Swedberg 1989).

On the other hand, Schumpeter emphasizes the fact that economic sociology provides a theory of economic behavior conceived as embedded and interacting with the institutional setting of the whole society and not assumed as a given datum inherited from history. The following quotation taken from Schumpeter's *History of Economic Analysis*, reinforces the argument by locating the demarcation line between theory and economic sociology precisely at the level of the assumptions concerning behavior:

> " (…) economic analysis deals with the questions how people behave at any time and what the economic effects are they produce by so behaving; economic sociology deals with the question how they came to behave as they do. If we *define human behaviour widely enough* so that it includes *not only* actions and motives and propensities but also the social institutions that are relevant to economic behaviour such as government, property inheritance, contract, and so on, that phrase really tells us what we need. " (Schumpeter 1954: 47–8, *underlined by us*)

Therefore, economic sociology is valuable and deserves special focus because it permits to deal with the institutional background underlying economic behavior. Moreover, it allows to endogenize economic behaviour, which is usually taken as an exogenous factor by economic analysis. Such a procedure also permits to derive heterogenous norms of behaviour, in contrast to the uniform and universal norm of behaviour, i.e. the hedonistic (and static) norm of behaviour taken as granted by Walrasian economic analysis[10].

[10] This argument can also be extended in order to deal with Schumpeter's conception of rationality. Taking into account economic sociology indeed permits a better understanding of Schumpeter's multi-level methodological perspective (see the distinction 'rationality of the observer' vs. 'rationality of the observed' in Schumpeter 1940) concerning the problem of rationality in economics. More generally, the introduction of economic sociology

Finally, and more generally, economic sociology can be interpreted as one bridge between statics and dynamics, or as means to unify Schumpeter's analytical framework, by qualifying the usual argument of the logical inconsistency between the routine-based static circular flow and the case of development, supposedly arising endogenously from the circular flow[11]. If economic sociology or, in other words, the analysis of the role of institutions and institutional change, can be considered as secondary for economists whose interest is focused on the working of stationary economic states, it becomes however a central issue for dealing with economic dynamics, as Schumpeter defines it, i.e., "such changes in economic life as are not forced upon it from without but arise by its own initiative, from within." (Schumpeter 1934: 63). Under those circumstances, economic sociology cannot be considered as non economical, and thus must also to be distinguished from simple sociology. Moreover, since Schumpeter excludes from the definition of economic development such changes in data or in economic conditions, to which the economy continuously adapts (ibid), economic sociology provides the tool for dealing with the social structure of an economic system. More precisely, for Schumpeter, economic sociology or social institutions are more than a complement to economic analysis. They rather constitute a logical priority to it. In other terms, for Schumpeter, it is not possible to deal with economic change without considering complementary and necessary previous institutional change. This is rather well expressed in the following passage:

> "Because of the fundamental dependence of the *economic* aspect of things on everything else, it is not possible to explain economic change by previous

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into Schumpeter's methodological framework permits to extend the range of application of rational models as compared to pure economic theory (see Festré and Garrouste 2006).

[11] We have in mind, here, for instance, the role of leadership and the character traits of the entrepreneur in Schumpeter's first German edition of the *Theory of Economic Development*. For a more detailed discussion of Schumpeter's shifts of emphasis, from the second edition onward, from the individual entrepreneur conceived as a leader interacting with many various sectors of social life (economics, politics, art, etc.) to the de-personified entrepreneurial function, see Becker and Knudsen 2002.

economic conditions alone. For the economic state of a people does not emerge simply from the preceding economic conditions, but only from the preceding total situation" (Schumpeter 1934: 58, *underlined in the original*)

In sum, economic sociology deals with the institutional background underlying economic behaviour but also with how this background is likely to change, i.e., institutional change.

In an article entitled "American Institutions and Economic Progress"[12], Schumpeter clarifies his conception of institutions and institutional change. He emphasizes that, "by 'institutions' we mean in this course all the patterns of behaviour into which individuals must fit under penalty of encountering organized resistance, and not only legal institutions (such as property or the contract) and the agencies for their production or enforcement" (Schumpeter 1950a in Swedberg 1991, p. 438). This definition is perfectly consistent with the subject-matter of economic sociology, which consists, as we have emphasized, in relating institutions to economic behaviour. A few lines later, Schumpeter adds that , "institutional patterns (…) shape the economic process" and [that] the analysis of the sequence of events of this process cannot be adequately explained either by economics or by political science. (ibid: 440) but requires a specific analysis of institutional change. In the same article, Schumpeter sketches out a picture of what this analysis could be by mentioning several factors of institutional change.

A <u>first factor</u> of institutional change is related to routine activity, which "induces in itself a slow process of institutional change which it is very important to understand" (ibid. p. 439). The usual interpretation of Schumpeter's conception of routines often opposes routines to innovation within the productive sphere, but undermines the fact that Schumpeter also makes

[12] This text constitutes the basis for a series of lectures that Schumpeter was scheduled to give during January 1950 at the Charles R. Walgreen Foundation in Chicago. The day before the first lecture, however, Schumpeter died. The text first appeared in 1983 in *Zeitschrift für die gesamte Staatswissenschaft*. It has been reprinted by R. Swedberg (1991).

clear that routines are part of the underlying institutional setting "which compel individuals and groups to behave in certain ways whatever they may wish to do – not indeed by destroying their freedom of choice but by shaping the choosing mentalities and by narrowing the list of possibilities from which to choose" (Schumpeter 1950: 129-30). From this perspective, economic change is also concerned with how routines change.
This quotation stresses the fact that routines are embedded within the society as a whole and illustrates the importance of how institutional change is important in order to deal with economic change. In the remaining of the paper, we will show how banking and financial institutions are likely to establish routines in the everyday banking practices and how economic and institutional change may alter those routines and their associated anchored behaviours, so as to permit economic development.

A <u>second factor</u>, which Schumpeter refers as the 'personal element' of institutional change, is brought about by the responses of social groups of individuals to the impact of factors external to the given institutional pattern of a given society. This factor clearly relates to the phenomenon of leadership, which is at the core of Schumpeter's theory of social classes [13], but also refers to a specific non-routinized kind of behaviour. In the following, we will emphasize the role of the personal equation as a factor of change by arguing 1) that creative destruction occurs not only in the production sphere, as well-known, but also within the

[13] As suggested by Shionoya, "the structure of Schumpeter's theory of social classes" can be summarized as follows:

> "It starts from the general theory of leadership, it defines various social areas as the fields in which *social functions* are fulfilled, it arranges the complex of social areas in terms of *social values* or *social leadership* (the aptitude of fulfilling the social functions) to derive a social hierarchy (social classes), and it summarizes in the word *Zeitgeist* the spiritual and cultural expressions that correspond to the hierarchical social classes thus derived." (Shionoya 1997: 250)

Schumpeter's conception on social classes is found in his 1927 article on *Social classes*, where he makes clear that individuals' behaviour are not to be considered as strictly individual but also as the result of social stratification. This feature is symptomatic of Schumpeter's methodological approach, which consists in a mix of methodological individualism and holism. In passing, Schumpeter breaks off in this regard with most of his Austrian contemporaries. For more details on Schumpeter's conception of social classes and how it is compatible with methodological individualism, see Arena and Festré (2006: 54-55) and Festré and Garrouste (2006).

financial sphere, and 2) that this process is triggered by individuals such as bankers or groups of individuals such as partnerships between financiers and manufacturers, who display a different norm of behaviour than the one associated with previously established financial practices.

A third factor constitutes what Schumpeter refers as the 'element of chance' of institutional change, i.e., the possibility that "situations may arise in business or in politics the temporal coincidence of which, though some extent fortuitous, may produce consequences that could not have been predicted from any study of either development taken separately." "(Schumpeter 1950a in Swedberg 1991, p. 441)[14]. This factor may be interpreted as follows: for Schumpeter, the capitalist economy is a turbulent system, constantly in motion, but to think more precisely about what factors are unique and which are repeated, or what is random and what is determinate, requires close attention to institutional and historical detail. However, Schumpeter did not believe the task of explaining change in the economy should be turned over to the economic historians or the economic sociologist; the goal of economic theory should be to account for change. This third factor therefore accounts for the indeterminateness that is irreducible in any theoretical endeavour to analyze economic change. This factor may, for instance, refer to financial or monetary international crises, the consequence of which could alter the working of financial institutions in a radical and irreversible way.

With these three factors we can now draw some provisional properties of institutional change for Schumpeter.

First, institutional change is conceived as an endogenous process. This feature is often overlooked by the usual interpretation of Schumpeter's analysis, which claims that

[14] Schumpeter mentions a fourth factor of institutional change, which is "brought about by the responses of politicians, bureaucrats and journalists to the impact of factors external [such as wars or crises] to the given institutional pattern of a given society.
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Schumpeter is focused on the emergent properties of change, while neglecting the process of change itself[15]. Our interpretation is however based on the role of economic sociology, i.e., on the institutional background underlying economic behaviour. As can be briefly summarized, this institutional background contains several analytical ingredients such as social stratification (involving both an interclass and intraclass dynamics in relation to some necessary social functions) or the phenomenon of leadership (also involving an individual and a social dimension). To put the matter in a nutshell, the institutional setting of the society is crucial for understanding economic change given that it moulds the behaviour of individuals and vice versa since repeated behaviours become anchored into the institutional setting to such an extent that they constitute routines that strengthen the institutional background.

Second, institutional change is a process involving the interaction of distinct groups of men such as families or social classes that are defined according to the social function they have to perform in a given society. The existence of such groups, which have some degree of autonomy vis-à-vis individuals and interact with each other in many instances of social life, may give rise to social values or collective beliefs that mould the public opinion and shape the behaviours of individuals. This feature is at the basis of the phenomenon of leadership.

Third, institutional change is a process that involves gradual, sequential, and incremental transformations due to the relative autonomy and inertia of collective beliefs or to leadership that may involve self-inforcement mechanisms (success bringing success…). Moreover, patterns of individual behaviours adapt only slowly and gradually to the changing environment because 'routinized' or automatic behaviour implies some resistance to change.

Fourth, institutional change is also characterized by a process of 'destructive creation' and therefore, of radical change[16]. Within this process, the 'personal equation' or the 'personal

[15] See for instance, F. Perroux in his Introduction to French translation of Schumpeter's *Theory of Economic Development*, Paris: Dalloz, 1935.
[16] From an analytical perspective, the dichotomy between radical and incremental changes refers to the opposition between punctuated equilibrium vs. gradualism (see N. Eldredge and S.J. Gould 1972)

element' plays a crucial role since it permits, under some favourable circumstances, to break off with established routines and brings in some novelty into the system, sometimes under the impulse of major crises or conflicts of interests. On the other hand, social groups are likely to disappear if they prove not able to perform their social functions under the renewed institutional setting.

Finally, the evolution of society is ultimately for its most part driven by economic forces because of the "fundamental dependence of the economic aspect of things on everything else" (Schumpeter 1934: 58). However, this process is not deterministic since economic transformations such as new combinations for instance are retained by the social structure, the underlying mechanism being the interaction among agents, and social agents nested within social sectors. Social stratification then reflects on the behaviour of individuals so that there appear dynamic mechanisms such as self-enforcement but also hysteresis or inertia effects that imply that in most of the cases, the evolution of institutions and social structures, lags behind the process of economic change[17].

This way of looking at institutional change is not far from North's idea that crises are important as a matter that strengthens new ideas and weakens the position of the status quo tenants (North 1994). It also bears a relation to Hodgson's conception of institutions as both subjective ideas in the heads of individuals and objective structures faced by them: "agents and structures, though distinct, are connected through a circle of mutual interactions and interdependence." (Hodgson 1998: 181).

Let us now investigate how this overall framework of institutional change may be dealt with in the specific case of Schumpeter's analysis of money, banking and finance.

[17] For more details, see Festré and Garrouste (2006).

2. Banking institutions and economic development

The great diffusion of Schumpeter's contribution on innovation casts his banking and credit analysis into the shadows. This section aims at showing however that in Schumpeter's theory, each stage of capitalist development is shaped by the institutional structure, especially banking institutions and that this structure is always evolving in response to profit-seeking activity under the constantly renewed financial institutional setting.

2.1. The banker, as the "ephor" of the capitalist system

Before entering into a precise analysis of the role of monetary and financial institutions in Schumpeter's description of the process of economic development, a few introductory remarks may be fruitful. First, we want to emphasize that Schumpeter's contribution in the monetary field cannot be understand in isolation from the other parts of his vision of economic development.

In particular, four aspects of Schumpeter's monetary analysis are worth reminding.

First, it should be stressed that, building on the Quesnay-Walras concept of 'circular flow', Schumpeter conceives economic life as "a system of flows of monetary expenditure directed toward objects sold against such expenditure" (Marget 1951 [1991], p. 180).

Second, given that monetary analysis is defined by Schumpeter as "a theory of the economic process in terms of expenditure flows", money, is, in short, "the means whereby a link is established in *time* between the successive discretely realized events of the economic process" (ibid: 181).

Third, money in itself “has no organ of locomotion” but flows “in response to *decisions* made by *economic units*”, such as a consumer, a business firm, a government or a financial institution. With respect to decisions made by government and financial institutions, one should note that they determine “whether there shall be additions to, or subtractions from, the total stock of money-spending power, and what particular elements in the community shall receive or be deprived of money-spending power as a result of these decisions” (ibid: 181–82).

Fourth, this representation of the ‘circular flow’ of economic life rests “upon specific assumptions so as to the nature of the institutional arrangements which condition the functioning of the economic process” (ibid: 184). In other word, for Schumpeter, “[i]t is the responsibility of *monetary* analysis in particular to see to it that the nature and functioning of *monetary* [and financial] institutions (…) be studied from the standpoint of their effect upon the magnitude and direction of money flows” (ibid: 184).

It is in particular this last point that will be dealt within this section. We will show, using the tools of analysis of Schumpeter provided by the distinction between three successive cases – the ‘circular flow’, the ‘steady-growth case’ and the ‘development case’ – how monetary and financial institutions gradually and indirectly shape individuals’ behaviour as well as their position within social stratification, and consequently provide necessary conditions for economic (as well as institutional) change to occur.

To begin, let us consider the case of the circular flow.

At this stage, no specific monetary or financial institution is apparently involved. But, in the background of this theoretical scheme there exists an “institutional framework derived from economic history” (Schumpeter 1954: 16), namely, the fact that money in itself is a ‘social institution’ or a social accounting and clearing system (Schumpeter 1970, p. 206; Schumpeter

1956 [1917/1918]: 150)[18]. This provides a good example of what Schumpeter has in mind when in *History of Economic Analysis*, he advocates for the addition of a fourth technique of economic analysis, i.e., economic sociology, to the ones of history, statistics and 'theory', defining it as "a sort of generalized or typified or stylized economic history" or as the discipline that deals with the question of how social institutions come to operate as they do (Schumpeter 1954: 20–1).

The function of money at this stage is however in principle "of a mere technical nature" with no effect on the distribution of income and the production structures: "money is essentially a device for carrying on business transactions, a mere satellite of commodities, a servant of the processes in the world of goods" (Schumpeter 1917/1918, p. 151).

In other terms, within the setting of the circular flow, money is only considered as the mere counterpart of real exchanges.

Schumpeter thus conceived of the circular flow as a case of simple reproduction, referring explicitly to Marx, or the fictitious basic skeleton of the process of development (Schumpeter 1939/I) whereby there is no savings, no interest and no growth. The time interval considered is equal to the period of production, during which the social product, the sum of goods and services for consumption, is produced and consumed. All means of production last one period. Both types of goods result from the "productive services" of labour and "nature" (Schumpeter 1970: 113). Money is therefore viewed, in the spirit of Bendixen's "claim theory" or "entrance ticket theory", as "a claim ticket and a receipt voucher" of already existing goods and services (Schumpeter 1917/1918 [1954]: 154–55 and p. 160).

[18] For more details, see C. Dangel-Hagnauer (2002), in R. Arena and C. Dangel-Hagnauer (eds), 2002.

Let us now consider the case of steady-growth. This stage is introduced by Schumpeter in order to deal with the appearance of savings into the economic process. It is worth quoting at length how Schumpeter defines this state:

> We will envisage a society, stationary in every respect, except in that it displays a positive rate of saving. Production functions are invariant and external disturbances are absent. There is a positive rate of interest. If, however, the system is adapted to the actual rate of savings (...) this disturbance will be currently absorbed; for, as long as saving goes on at all, each installment will depress the rate of interest to the extent required to create its own investment opportunity (...) The result would, in fact, be a steady growth of the system's industrial outfit by the steady addition to it of new units of plants and machinery, which, however, must be of the same types as those which are already in use (…), in order to exclude a new and different element which would otherwise intrude." (Schumpeter 1939/I: 79-80)

The kind of savings Schumpeter refers to in this state is business saving, which is done with a specific investment purpose in mind. In other terms, there are no other motives for the act of savings than the motive of investing in the already existing technology, i.e., replacement for used physical capital, or addition to the existing capital stock[19]. Consequently, most sources of savings that are not regarded as claims to already existing income are absent from this 'stationary state'. For instance, cash holdings or reserves[20] are

[19] See Festré (2002b), in R. Arena and C. Dangel-Hagnauer (eds), 2002.

[20] Cash holdings do not, in fact, belong to the 'business sphere' (Schumpeter, 1939/I: 124) but to the 'sphere of hoard and reserves' which, together with the 'sphere of capital', constitutes the 'money market', as already mentioned. See also R. Arena and A. Festré (1996), in L. Moss (ed), 1996: 167–77.

absent from this state. This also means that Schumpeter's definition of saving excludes all considerations related to the Keynesian notion of liquidity[21].

Even though unusual, it is not surprising that Schumpeter includes the case of steady growth under 'statics'. He simply regards it as an extension of the pure model of the 'circular flow' except, that it displays a positive rate of saving. One may possibly consider that Schumpeter's ultimate purpose in introducing this intermediary case into the analysis is to create an organic link between the 'circular flow' and the case of 'economic development'.

Associated with the appearance of savings is the emergence of the phenomenon of interest. Given Schumpeter's conception of saving[22], interest[23] can only be conceived as a purely "monetary phenomenon" (Schumpeter 1939/I: 128). Moreover, as the rate of interest is derived from the positive rate of profit associated with the operation of innovative productive activities, it is also a short-term phenomenon (see Arena and Festré 1996: 175).

The steady-state case now authorizes the emergence of banks or other financial intermediaries, such as private capitalists for instance, which lend money or capital to producers in order for them to invest in capital goods and sustain a steady growth in the total industrial outfit. In this case, a strict equality between investment flows and savings in term of monetary flows is guaranteed and no structural change within the distribution of income or within the production system is allowed.

Banks thus play a passive role, allowing credit that can only consist in already existing idle stocks of money that are claims to already existing income. In other terms, they do not disturb

[21] For a comparison between Keynes and Schumpeter's conception of savings, see Nasica in R. Arena and C. Hagnauer (2002)

[22] Schumpeter defines savings as "the earmarking, by an household, of an element of its current receipts –as distinguished from 'capital gains'– for the acquisition of titles to income or for the payment of debt." (Schumpeter, 1939/I, p. 75). "

[23] Schumpeter defines interest as "the price paid by borrowers for a social permit to acquire commodities and services without having previously fulfilled the condition which in the institutional pattern of capitalism is normally set on the issue of such a social permit, i.e., without having previously contributed other commodities and services to the social stream." (Schumpeter 1939/I: 123)

the normal operation of the existing production structures and the normal circulation of national income. This kind of credit corresponds to what Schumpeter refers as ‘normal credit’, i.e., credit that “creates claims to the social dividend, which represent and may be thought of as certifying services rendered and previous delivery of existing goods” (Schumpeter 1934: 101). It is to be distinguished from the ‘abnormal credit’, which will appear in the development case.

Let us now switch to the case of development. This case provides the core of Schumpeter’s contribution in his *Theory of Economic Development* as well as in *Business Cycles*. Now, the figures of the entrepreneur and the banker are consubstantial with the process of development. In the scheme of economic development, credit consists in the ‘abnormal’ kind of credit, i.e., credit that “creates claims to the social product, which, (…) in the absence of past productive services [can] only be described as certificates of future services or of goods yet to be produced” (Schumpeter 1934: 101).

This implies that banks cannot be described as passive intermediaries as in the case of steady-growth since they now play a key role in the distribution of economic resources. As Schumpeter puts it, the banker “has either replaced private capitalists or become their agent; he has himself become the capitalist par excellence. He stands between those who wish to form new combinations and the possessors of productive means.” (Schumpeter 1934: 74).

On one side, banks interfere with real propagation mechanisms by allowing the transfer of productive resources to new entrepreneurs. These reallocation effects can interfere with price competition and alter the outcome of the process of adaptation in the course of which some existent firms turn out to have become unprofitable and are eliminated, while others, seizing new profit opportunities and being backed up by banks, manage to escape bankruptcy. This feature is of utmost importance. In particular, it reveals the complementary nature of institutional and economic change, namely, the fact that institutions are the expression of the dominant position of leaders in society. In this way, the development of credit shows the leadership of entrepreneurs in the capitalist society, to such an extent that Schumpeter refers to credit as a special social permit which is given by the society to the entrepreneurs in order for them to have purchasing power at their disposal, without having to go through the usual path of labour (Schumpeter 1934: 107)

On the other side, banks interact with entrepreneurs in determining the volume of credit. While it is the entrepreneurs who initiate the process, banks decide which of these initiatives to finance based on their expectations regarding the profitability of innovative projects and the entrepreneurs' ability to repay their loans: "We know already by what forces this supply is regulated: first with regard to possible failures by entrepreneurs, and secondly with regard to the possible depreciation of the credit means of payment" (Schumpeter 1934: 195). In another passage, Schumpeter explicitly argues that "the banker must not only know what the transaction in which he is asked to finance and how it is likely to turn out, but he must also know the customer, his business, and even his private habits, and get, by frequently 'talking things over him', a clear picture of the situation." (Schumpeter 1939/I: 116-17)

On closer examination[24], it is possible to define the equilibrium level of the interest rate at a given point in time by deriving a supply and a demand curve for credit.[25] However, this description of the workings of the money market is not very satisfactory.

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[24] The rationale for this analytical development can be found in Schumpeter's *Theory of Economic Development*. See Schumpeter 1934: 191-198.
[25] See Bellofiore 1991: 378, Messori 2004 and Festré (2002a).

In the first place, banks select entrepreneurs not only by setting the rate of interest but also by evaluating innovations as well as the entrepreneurs themselves and the subsequent use they make of a loan.

Secondly, the changes in the demand for finance occurring throughout the cycle affect not only actual but also potential credit (i.e. the maximum credit banks can create in a given institutional context). Moreover, the question of technical limits to credit supply, such as may arise in a monetary system when banking operations are constrained by reserve requirements and when there is a preference for cash on the part of the public, is of little relevance to Schumpeter, given that banks can ration credit and manage cash/deposit ratios in a procyclical manner, reducing them in prosperity and raising them in a depression (Schumpeter 1934: 112–15; Schumpeter 1939: 121–23; Schumpeter 1956 [1917/1918]: 206–8. In short, the actual supply of credit shifts with the demand and does not face a definite ceiling of potential credit supply since the latter moves procyclically.

More importantly, the influence they exert on the financial side of the economy is not limited to credit creation and control. More specifically, in Schumpeter's analysis banks are seen to have both a permanent and an asymmetric impact on the money market which includes both the 'sphere of hoards and reserves' and the 'sphere of capital'. The common feature of these two spheres, and therefore the distinctive feature of the money market, is that they permit stock markets to work. The money market is the place where 'cash reserves', i.e. 'idle non circulating money', and 'income yielding assets' are mutually exchanged (Schumpeter 1956 [1917/1918]: 176). The first sphere of the money market is the 'sphere of hoards and reserves'. The second corresponds to 'capital' or 'income-yielding assets' and includes the real estate and mortgage markets as well as the stock market (ibid). In this framework then, the role of banks is clearly not limited to the control of credit. Schumpeter, in fact, asserts that:

> “The most cursory glance at money market processes shows that the banks regulate both stock market speculation and the pulse-beat of industrial and commercial life, now restraining, now stimulating them.” (Schumpeter 1956 [1917/1918]: 176)

This implies that banks exert a very strong influence on economic life[26]. This power derives from two factors.

First, Schumpeter assumes that both spheres of the money market are interrelated. Therefore, the markets for short-term loans and long-term assets do not work separately but interact within a single money market in which purchasing power is exchanged. This derives from Schumpeter’s conception of interest according to which “interest is a [monetary] value phenomenon and an element in price” (Schumpeter 1934: 173) flowing from profit (ibid: 175). Given this definition, there is no rationale for distinguishing “between interest on loans and ‘original interest on capital” (ibid: 177). In *Business Cycles*, Schumpeter explains that “the capitalist process develops, along the money market, (…), perfect negotiability of all instrument of credit, whatever their legal form may be” (Schumpeter 1939/II: 613). In this perspective, there are no differences in principle between bonds and credit and between short term and long term interest rates. As Schumpeter indicates:

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[26] In a passage of his *History of Economis Analysis*, Schumpeter reasserts this point:

> “‘Credit operations’ of whatever shape or kind do affect the working of the monetary system; more important, they do affect the working of the capitalist engine – so much as to become an essential part of it without which the rest cannot be understood at all” (Schumpeter 1954: 318).

From this perspective, Schumpeter can be viewed as a ‘creditist’ (Earley, 1994) since he considers that the behaviour of credit, i.e., the volume of borrowing and lending, is the fundamental financial variable in the determination of the general level of economic activity. In this sense, a creditist is opposed to a ‘monetarist’, who considers the stock of money, i.e., the means of payment, as the fundamental financial variable, while credit and its influence are of second importance.

> "Bonds, for instance, thus become a vehicle of the shifting of balances, which only technically and by degree differs from short-term instruments (…).there exists no such thing as the long-term rate and that, if we nevertheless wish to use the concept, the thing we ought to mean is some kind of 'trend value' of short rates." Schumpeter 1939/ II: 614)

In other terms, the sphere of capital is hierarchically submitted to the sphere of hoards and reserves.

Second, the 'sphere of hoards and reserves' depends heavily on banks since the latter can manipulate the volume of available liquidity through the lending of credit. By creating means of payment through organising credit, banks effectively regulate the activity of this sphere. Moreover, the interdependence of both spheres within the money market allows banks to extend their influence to the sphere of income-yielding assets. On the one hand, banks create *ex nihilo* credit means of payment, thereby strongly contributing to the emergence of interest. This, in turn, affects the whole economy in that the existence of interest now constitutes an additional motive to save on the part of consumers. In other terms, interest emerges through the activity of banks, through lending and borrowing and diffuses within the whole money market:

> "Lending and borrowing can become part of the normal routine of industry and commerce, and interest can economically and socially acquire the importance that it actually has, only if the control of present purchasing power means more future purchasing power *to the borrower*." (Schumpeter 1935: 189)

Therefore, banks neither are, thus, purely neutral intermediaries nor are the effects of credit creation transitory since they give rise to a secondary wave of the creation of new sources of purchasing power which can be mobilised to finance further productive activity. However, the influence of bankers cannot be conceived as an irreversible process. As bankers are closely linked to the leadership of the entrepreneurs, which Schumpeter considers as transitory[27] (Schumpeter 1934: 90), their influence is necessarily subject to gradual or even radical change.

To sum up, Schumpeter views the bankers as the ephors[28] of the capitalist economy which control and select what can be financed and what is actually financed only is within the realms of possibility. In Schumpeter's framework, this strategic function of finance is the prerogative of banking institutions and it is therefore not surprising that Schumpeter put so much emphasis on the role of banks or of the banker in business or economic activity.

However, little attention was paid to a second fundamental aspect of Schumpeter's contribution on finance: the fact that the banking system as a whole is subjected to innovations.

2.2. The banker as an entrepreneur and innovator

[27] There are at least two arguments mentioned by Schumpeter to account for the transitory nature of the leadership of entrepreneurs. A first one refers to the character traits of entrepreneurs. Schumpeter indeed notes that entrepreneurs do not have any "attitude or cultural tradition" (Schumpeter 1934: 90) and do not have the "prestige" of middle age warlike lords. A second reason lies in the fact that the position of the entrepreneurs might be threatened as soon as the necessary social function they have to achieve, i.e., introducing innovation for its most part, looses momentum. In this respect, it seems that innovation is inevitably associated to some resistance to change from the social environment in which the entrepreneur attempts to promote some change so that innovation is *de facto* transitory.

[28] An ephor was an elected magistrate of Sparta who exercised supervisory power over the kings. The term refers to an overseer, guardian or ruler.

The leading role of entrepreneurs in implementing productive or organizational innovations is one of the most widespread features of Schumpeter's contribution. In this perspective, entrepreneurial business is implicitly considered as playing the lead in the financial negotiations that they carry on with financial institutions such as banks.

In a capitalist environment however, bankers perform an entrepreneurial function, which is by no means less important than the one of business entrepreneurs for economic development. Clearly financial institutions and practices appear and disappear. Thus, Schumpeterian creation and destruction occur also in the field of finance, as well as innovation, whether it takes the form of product, process or organizational innovation or whether it consists in incremental or radical change. Moreover, new types of financing media may emerge and thereby, trigger further process and product innovation. Though not often stressed by commentators, this feature of bankers was emphasized by Schumpeter. He indeed noted that

> "Financial institutions and practices enter our circle of problems in three ways: they are "auxiliary and conditioning"; banking may be the object of entrepreneurial activity, that is to say, the introduction of new banking practices may constitute enterprise; and bankers (or other "financiers") may use the means at their command in order to embark upon commercial and industrial enterprise themselves (for example John Law)" (Schumpeter 1947 [1989]: 153).

This quotation shows that Schumpeter perfectly understood that financial institutions are also entrepreneurial organizations striving to innovate in order to generate capital gains. This implies that financial systems evolve not only in response to demands of business leaders and individual investors but also as a result of the innovative activity of profit-seeking entrepreneurial financial firms.

To put it in a nutshell, in Schumpeter's theory of economic development, new combinations, which are the outcome of negotiations among entrepreneurial businessmen and financiers, lead to process and product innovations but also to new financing relations and financial institutions[29].

When Schumpeter was writing his *Theory of Economic Development*, i.e., in the early years of the twentieth century, the institutional background of capitalism was undergoing a process of ongoing change, inducing profit-seeking bankers to accommodate their practices to these successive changes. Each new stage of development reached during this period was backed up by specific financial tools as well as appropriate financial institutions.

The two main functions of the Schumpeterian banker – as an 'ephor' and as an 'innovator' – examined above, perfectly reflect the specific industrial and financial environment of this historical period of capitalism.

First, it may be useful to recall what is *not* the Schumpeterian banker: he or she is not the banker of "commercial capitalism"[30].

Commercial or 'merchant' capitalism springs from European feudal society and has its source in America with the establishment of British colonies in the 1660s. At that time, only trade was financed thanks to the banking system and emerging financial markets. Commercial capitalism is an outgrowth of merchants placing their goods on ships and caravans. Trade at a distance, and therefore payments at distance, requires expertise on behalf of bankers in long

[29] See also Minsky (1990, 1993).
[30] We use the terminology of Whalen (2001) who identifies five stages of capitalism for US economic history: merchant capitalism (1607-1813), industrial capitalism (1813-1890), banker capitalism (1890-1933), managerial capitalism (1933-1982), and money-manager capitalism (1982-present).

distance merchant practices and in the techniques of international commercial finance. Banking practices of commercial capitalism, i.e., merchant banking, involves both the vouching for the legitimacy of distant trade partners and the financing of goods in transit. The financing of expensive and long-lived capital assets falls outside the domain of banks and organized financial markets. Proprietorships, partnerships, and governments provide the funds for the capital assets of such an economy (Minsky, 1993).

The Schumpeterian great waves of innovation, which marked the railroad industry for instance, ended the period of commercial capitalism because the positions to be financed were too great to be handled in the usual way. Innovation in finance was a prerequisite – for the banking structures of merchant capitalism were ill-suited to finance the capital development of the economy.

Obviously, Schumpeter's view of the banker as the "ephor" of the capitalist system – providing finance for innovative, new combinations of resources – does not spring from 'commercial capitalism' but from another specific stage of capitalist development, namely, 'industrial capitalism' that lasted from 1813 to 1890. Industrial capitalism was characterized by the emergence of financial organizations that could mobilize the resources required for factory manufacturing, capital-intensive transportation, mills and mines, etc.

In Great Britain and the United States, commercial banks were not the main channel used by corporations for financing their expensive investments that made the industrial revolution possible[31]. While trade was still financed through commercial credit, capital accumulation of these economies mainly depended upon financial markets. The main middlemen of these financing markets were *investment bankers*. This was the era of the houses of Rothschild and Morgan. These bankers acted as brokers when facilitating trade in existing issues and as dealers when underwriting new issues. These new lines of business sprang from the need to

[31] The banks of this period often combined investment and commercial functions.

trade positions in the liabilities of business organisations and to provide external finance for capital asset ownership:

> "Stock exchange speculation, especially, and the speculative holding of newly issued stock were in all countries largely financed by banks, which, therefore, always served the purpose of financing long-time investments, at least in this indirect way, even if in no other" (J.A. Schumpeter 1939/I: 348).

Those investment bankers, who proved to have been able to provide finance for innovative combinations of resources, then became the mainstay of economic power, the "ephor" of the "exchange" economy.

But industrial capitalism was also a period marked by numerous rounds of cutthroat price competition. By threatening the financial health of industrial firms, this competition jeopardized the ability of corporations to fulfil their payment commitments.

Responsible bankers, concerned about the quality of the instruments they sold, "*began to abhor competitive markets*" (Minsky 1993: 109). Morgan, for example is reported as having said, "I like a little competition; but I like combination better" (quoted by Heilbroner and Singer 1994: 206).

By responding and accommodating to cutthroat competition, investment bankers paved the way for the development of 'banker capitalism' that spread through the United States in the 1880s and 1890s. It is also during this period that the second feature of the Schumpeterian banker, i.e., its entrepreneurial and innovative function, is the most obvious.

In the United States, the emergence of banker capitalism was characterized by investment bankers seeking to protect the cash flows of the firms they financed, which lead them to turn their attention towards the financing of industrial combinations (cartels, trusts, and mergers), a trend not at all impeded by the Sherman Anti-Trust Act. Quite the contrary, a merger wave took place right in its aftermath. For instance, between 1892 and 1902, JP Morgan was instrumental in promoting mergers that created General Electric, American Telephone and Telegraph, International Harvester, and United States Steel (Heilbroner and Singer 1994: 206): “By 1904, one or two giant firms – usually put together by merger – controlled at least half the output in seventy-eight different countries” (Heilbroner and Singer 1994: 208). At the industry level, investment bankers acquired a controlling position in the economy not only by promoting mergers but also by securing large ownership shares on the boards of directors of newly combined corporations.

Such a phenomenon had already been observed in Germany several years before and noticed by Schumpeter (1939, Chapter VII) who praised German industrial credit banks (*Kreditbanken*) for their *entrepreneurial* attitude and for having, thereby, fostered the rise of large industries.

In Germany, during the initial stage of industrialization (1850-1870), few large private banks were financing most of the newly established industrial firms. These banks did not develop as a consequence of industrialization, but pre-existed to it. They were enjoying considerable market power in an oligopolistic banking market that was protected by regulatory barriers to entry. They actively promoted investment in industrial technology and engaged in coordination of industrial investments. And these banks acted not only as lenders but also as shareholders, thus pioneering universal banking. *Kreditbanken*, played an active role in industrial development combining commercial and investment banking activities and nurturing close relations with industry (Da Rin, 1996). Between 1851 and 1870, 259 firms were incorporated, up from 102 in the previous 25 years. Incorporation was typically managed with the help of an industrial credit bank. *Kreditbanken* acted as universal banks, providing loans and securities issue for their clients but also retaining equity positions in those firms[32].

The personal nature of their business relationships allowed them to gather and circulate information effectively and, thereby, to have a strong influence on investment decisions. As Tilly (1966: 181) argued: “the contribution of German bankers to the mobilization of capital operated not only on the supply side but on the demand side as well; by organizing and allying themselves so closely with industrial enterprises, banks strengthened and in part represented the demand for investment funds”[33].

It is very likely that Schumpeter’s vision of the banker as an innovator has been inspired by the American and German periods of “banker capitalism”. These periods indeed perfectly reflect Schumpeter’s idea, already underlined above, that “banking may be the object of entrepreneurial activity” not only because “the introduction of new banking practices may constitute enterprise” but also because “bankers may use the means at their command in order to embark upon commercial and industrial enterprise themselves” (Schumpeter 1989 [1947]: 153).

This vision should be however contrasted with the one of Hilferding (1910), who took part, together with Schumpeter, in Böhm-Bawerk’s seminars in Vienna. Hilferding endorsed a vision of finance, using the term, capital finance, which encompasses both banking and industrial capital. He therefore developed an analysis that undermined the tension existing

[32] Riesser (1911: 339–40) described in detail the participations taken by *Kreditbanken* in railways and heavy industries in the 1850s.

[33] The great crash of 1929-33 marked the end of the era in which investment bankers dominated financial markets. In the US, the role of bankers as the ephors of the decentralized market economy was reduced when government took over the responsibility for the adequacy of profits, of aggregate demand. The flow of profits that followed from the deficits of government meant that the internal cash flows of firms could finance their investments. Management of established firms which had some market power that protected them from competition could be independent of their investment bankers: there was no need to use market intermediaries to finance investment. Firms rather that bankers were the masters of the private economy (For a more complete analysis, see Whalen, 2001, and Minsky,1993).

between industrial and finance capital, maintaining that they are doomed to melt into one single block. According to Hilferding, banks are more powerful in the relationship between finance and industry because first, money capital stands at distance from the production sphere and hence it achieves some kind of relative autonomy; second, since banks are able to diversify their assets, the failure of one transaction will not cause their bankruptcy, whereas the industrialists' survival can be threatened by the failure of one single transaction. Therefore, Hilferding concluded that there is a univocal tendency for banking capital to dominate industry. This analysis has been criticized on several grounds (cf. Harris, 1988). In particular, Sweezy (1942) argues that industrial capital dominance was the main force in the expansion of capitalism. Industrial capital has acquired its own independence from banking capital by higher rates of internal accumulation. This has allowed industrial capital to reinvest profits in its industries without the need for further ending by the banks. According to Sweezy, Hilferding missed out a very important phase in the development of monopoly capitalism. Although the banks have the power to influence the formation of corporations and mergers, they cannot do so infinitely. In all likelihood, a middle position can be established using the insights of those two extremes. First, the power relationship between industrial and banking capital requires some kind of balance in order for the accumulation process to proceed. If banking capital has absolute power in this relationship, then it will accrue the whole of the surplus and the accumulation process will stop. On the other hand, if industrial capital plays the lead in appropriating the surplus, the owners of capital will be no longer be willing to lend out money capital. From this perspective, financial innovations can be seen as many tools of adaptations to the tension existing between industrial and banking capital. Moreover, this tension is not constant but it is likely to change during the course of the cycle and the course of change in the capitalist economy so that is should not be analysed in a static context.

Streissler also provides an interesting historical perspective regarding those issues, noting that in the last two decades before World War One, Austrian bankers did not in fact finance the starting of new enterprises but rather gave old enterprises a new start through the incorporation of existing enterprises and the introduction, in progressive stages, of the common stock thus created on the stock exchange (Streissler 1983: 75). This interpretation gives strong support to the idea that bankers were innovators, not in the field of production but rather in the field of organization. By reorganizing the existing industries and by standing on the demand side of credit, bankers have played an important role in the upsurge of economic growth, but it was mainly due to economies of scale of incorporation and the easier access to credit which it made possible (ibid: 75). Moreover, large banks were mainly financing circulating capital and not investment in new capital goods. But the enormous increase in normal short term credit and mortgage credit opened new opportunities for financing part of the necessary building for other financial intermediaries: "increased finance of a completely traditional type, finance of the non-innovative side of the enterprise, may have set free capital for the innovative investment proper (…) [b]ut it was no conscious effort on behalf of the banks to further innovation" (ibid: 77). This situation was reinforced by the context of the depressive 1880s, characterized by both dwindling opportunities of government finance and a glutted credit market with declining rates of interest. Though mainly exerting a rather conservative influence, as shown by their reluctance towards competition and their tendency to impede it through the formation of cartels and their policy of caution, large Austrian banks were in the urgent need to find new investment outlets.

What emerges in Schumpeter's analysis of the role of monetary, banking and financial institutions is the strong emphasis he puts on the process of transformation that those institutions are undergoing. This interpretation is confirmed by Schumpeter's stance on the problem of emergence of institutions. In particular, in an article dedicated to the fiscal State he wrote in 1918, Schumpeter indicates that:

> “Above all, there is the possibility, provided by the events described by fiscal theory, of perceiving the laws of social being and becoming and the forces which constrain the destinies of people and also the way according to which *concrete* situations, especially specific forms of organizations, can emerge and disappear” (J.A. Schumpeter 1918, n. 6, in Swedberg 1991: 133).

It is also perfectly in line with what Schumpeter refers as “patrimonialization” of innovation and business practices. What Schumpeter means by “patrimonialization” is the process by which some social activities or some social classes tend to disappear because they do not correspond anymore to necessary social functions as they did before (Schumpeter 1951 [1927]: 191-199). One of the key features of this process relates to individual economic behaviour, since Schumpeter emphasizes that the process of patrimonialization goes hand in hand with a process of growing rationalization. This characteristics is well illustrated by Schumpeter’s discussion on the role of routines. If he often opposes routines to innovation within the productive sphere, he also makes clear that routines are part of the underlying institutional setting. From this perspective, economic change is also concerned with how routines change. This is why, according to Schumpeter, some social functions such as the entrepreneurial function associated with leadership and innovative behaviour are likely to smooth down or even to disappear, as innovation diffuses within society. The process of “routinization of innovation” that Schumpeter refers to when referring to “Trustified Capitalism” in *Capitalism, Socialism and Democracy*, clearly illustrates this point:

> "This social function is already losing importance and is bound to lose it at an accelerating rate in the future even if the economic process itself of which entrepreneurship was the prime mover went on unabated. For (…) it is much easier now than it has been in the past to do things that lie outside familiar routine – innovation itself being reduced to routine." (Schumpeter 1950b: 132)

This quotation stresses the fact that routines are embedded within society as a whole and illustrates how institutional change is important in order to deal with economic change.

To conclude, our revisiting of Schumpeter gives strong support to an institutionalist interpretation of his work. Moreover, it permits, according to us, to revive the modern theory of institutions by providing a basis for dealing with institutional change or the dynamics of institutions.

Concluding remarks

In this paper, we have shown that Schumpeter's vision of the process of economic development and its associated financing problems is far more complex than it is usually assumed in the literature. We have stressed, in particular, the primary role of institutional change within the process of economic development. This feature is particularly relevant for analyzing the relation between the entrepreneur and the banker. We have indeed emphasized that this diptych is submitted to a process of co-evolution through an adaptive process of the financing structures of both the banking system and the firm. In this process, some new institutional arrangements emerge as historical examples of incorporation and cartelization illustrate as well as new financial institutions such as investment banks for instance.

From a more theoretical point of view, we have stressed, how the emergence of savings and of interest in the steady-state case, induces some institutional change within the financial system of the economy, as the development of the two spheres – the sphere of hoards and reserves and the sphere of capital – that constitute the money market exemplifies.

What results from our analysis is that Schumpeter’s analysis of economic change cannot be dealt with separately from both his conception of institutional change and his methodological approach. This feature does not preclude an evolutionary interpretation of Schumpeter’s works but, if we want to use the term ‘evolutionary’, we have to stress the specificity of Schumpeter’s conception of economic evolution, which involves institutional change as a logical priority. Moreover, since, according to Schumpeter, institutional change occurs both at the individual and collective levels, a ‘mechanical’ process of selection is irrelevant for explaining both institutional and economic change. We exemplified this Schumpeterian analytical perspective, showing that, even if the entrepreneur and the banker are crucial for the existence of economic development, their emergence is however rooted in some underlying institutions.

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Abstract

This paper offers an institutionalist interpretation of Schumpeter's contribution to economics based on an overall investigation of his works, from his early writings devoted to economic sociology to his late *Capitalism, Socialism and Democracy*, through his theory of economic development. This interpretation is then examined closely by revisiting the role of monetary, banking and financial institutions during the different phases of economic development. We conclude by maintaining that Schumpeter's overall framework is suitable and still very relevant for analysing institutional change.

Keywords

Schumpeter, banking institutions, financial innovations, economic change, institutional change.