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An Institutionalist Approach to Finance and an Illustrative Application to Investment Banking in the United States (1981-2008)

Una aproximación institucionalista a las finanzas y una aplicación ilustrativa a la banca de inversión de los Estados Unidos (1981-2008)

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Abstract

The 2008 US crisis revived contributions of Post-Keynesian Institutionalism (PKI) and particularly those of Hyman Minsky. As is known, his theories connected finance with macroeconomic dynamics from an institutional perspective. However, many of these Minskyan revisions focused on the Financial Instability Hypothesis (FIH) in terms of over indebtedness and fragility of balance sheets, without explicitly accounting for the relationship between finance, macroeconomic dynamics, and the institutional environment. This paper intends to deepen this threefold connection from a theoretical-methodological perspective; as well as to illustrate how the proposed framework can be applied (in this paper, to the study of investment banking in the United States in 1980-2008).

Keywords: economic thought; financial crises; institutional political economy, investment banking; regulation.

Resumen

La crisis estadounidense de 2008 revivió las contribuciones del institucionalismo poskeynesiano (PKI) y particularmente de Hyman Minsky. Como se sabe, sus teorías conectaban las finanzas con dinámicas macroeconómicas desde una perspectiva institucional. Sin embargo, muchas de estas revisiones de Minsky se centraron en el sobreendeudamiento y la fragilidad de los balances presentes en la Hipótesis de Inestabilidad Financiera (HAP), sin tener en cuenta explícitamente la relación entre las finanzas, la dinámica macroeconómica y el entorno institucional. Este documento pretende profundizar en esta triple conexión desde una perspectiva teórico-metodológica; así como ilustrar cómo se puede aplicar el marco propuesto (en este documento, al estudio de la banca de inversión en los Estados Unidos entre 1980 y 2008).

Palabras clave: pensamiento económico; crisis financieras; economía política institucionalista; banca de inversión; regulación.

Clasificación JEL / JEL classification: B52; G10; P16.

1. Introduction

The outbreak of the 2008 crisis in the US revived the contributions of the Post-Keynesian Institutionalism (PKI) and those of Hyman Minsky in particular. As is well known, his theories connected finance with macroeconomic dynamics from the perspective of the institutions in which they unfold. However, many of these Minskyan contributions were centered on analysing the business cycle of the Financial Instability Hypothesis (FIH) in terms of over indebtedness and fragility of balance sheets, without explicitly accounting for the relationship between finance, macroeconomic dynamics and institutional environment.

As such, this paper intends to deepen this threefold connection: finance, macroeconomic dynamics and institutions, both from a theoretical-methodological perspective and as an example of how the proposed framework can be applied to the study of specific historical financial events (in this paper, developments in the investment banking activity in the United States between 1980 and 2008). In particular, the paper introduces a series of stylized facts for investment banking from the 1980s onwards and it then develops an institutional analytical framework to show how its application may offer an explanation of the initial evidence.

The stylized facts relating to the US investment banking are the following: (1) during the 1980s and 90s capital markets related to financial securities experienced a stunning growth and so did the investment banking activity related to these markets; (2) most of the regulations and other legislation established in the thirties and overseeing those markets had been thoroughly removed during this period, and most importantly, the commercial banks' ban from engaging in investment banking had been ruled out entirely at the end of the 1990s; (3) the Great Financial Crisis that started in 2007-8 was an endogenous crisis, in the sense that it was the product of developments within the US financial system; and (4) the outbreak of the crisis in 2008 brought all major commercial and investment banks to the verge of collapse, and the only thing that prevented a major financial collapse was the government´s intervention.

The purpose of this paper is therefore twofold. First, it aims to propose an analytical framework allowing to draw up possible explanations regarding financial activity and its relationship with institutions and with macroeconomic dynamics. This framework should include fertile analytical categories and searching techniques to study financial phenomena and the relations between them. And it should be able to provide satisfactory explanations of the functioning of finance in capitalist economies. The construction of this framework will be based on an extensive review of relevant contributions set forward by institutionalists, Minsky's theories, and three other groups of theories that connect, in one way or another, finance and institutions.

The second objective is an exercise to apply the proposed analytical framework to the specific case of US investment banking. We do not however attempt to provide a thorough explanation – from that analytical framework – of the stylised facts relating to the investment banking, but rather to illustrate its utility in explaining particular phenomena. As will be seen, the proposed analytical framework can provide an articulated and dynamic interpretation of those stylised facts. It is articulated in the sense that it integrates variables relating to the three Minskyan areas (financial, institutional and macroeconomic) and their interconnectedness; and it is dynamic because it allows us to observe how these variables and the connections between them change over time.

Section 2 of this paper presents the threefold connection between finance, macroeconomic dynamics and institutions, building upon various strands of relevant literature. Section 3 collects the mainstays of said connection constituting our analytical framework, and presents a concretion of it for the investment banking activity. Section 4 provides a synthesis of the findings we have obtained from applying the analytical framework to the analysis of the US investment banking during 1981-2008. Finally, Section 5 concludes.

2. References for an institutionalist approach to finance

As emphasized in the PKI literature (Whalen 2008a, 2009, 2012; Dymski 2010, 2011; Sinapi 2011; Fazzari and Papadimitrou 1992; and Wray 2009a, 2012), two main references are the contributions of the first institutionalists and those of the first macroeconomists, as well as Minsky's later developments1. A third set of references includes contributions on institutional frameworks, relations of power, and financialization.

2.1. Fundamental principles of institutionalism and connections with macroeconomic dynamics

Veblen, Commons and Mitchell laid the foundations of the economic school of thought placing institutions at the heart of the economic analysis2.

[1] A suggestive theoretical framework for understanding financial instability, alternative to the Minskyian framework, can be found in Alonso Neira, Bagus and Rallo (2011). Nevertheless, it does not include the institutionalist perspective intended in this article.

[2] Another key strand of institutional literature is neoinstitutionalism. The "old" and the new institutionalists' main differences relate more to epistemological and methodological aspects than to conceptualization or classifications of institutions. Therefore, it seems unnecessary to us to also discuss neoinstitutionalism.

They established an analytical approach able to explain the economy-society connection, based on three main principles (see Hodgson 1998, 1999, 2004; Gatti et al. 1994; Stanfield 1999; and Whalen 1996, 2008a). First, the concept of institutions, which Veblen associated with the predominant habits in the relation between the individual with society through norms, organisms, behaviours, conventions and ways of thinking, and which Commons identified with the collective actions that guide and control individual actions. Second: the dual character of institutions, which Commons classified around two types according to their degree of formalization. Non-organized or informal institutions refer to social practices which are routinely assimilated on a social scale, whereas organized or formal institutions refer to legal bodies and regulations from which rules of behaviour are generated. Third: institutional change, which Veblen explained by way of inheritance, variation, and mutation of institutions.

According to these principles, economics is a social and interdisciplinary area of study aimed at investigating the causes that explain phenomena relevant to society, a proposal that from its outset drew certain ties of affinity with other schools of thought. First, institutionalism connected with political economy approaches, as they considered institutions within a certain type of economy: capitalism; which required considering corporate ownership, private corporations' pursuit of profit, and the connection between economic activities and a class-based society. Second, institutionalism connected with several studies emphasising the importance of finance in economic dynamics, as Veblen's early work showed, pointing to the "business cycle" as one of the main regularities of economic behaviour, while Commons insisted on the connection between credit and cycles, and Mitchell was a pioneer in the statistical study of economic cycles.

The foundations were thus laid for the later dialogue between the next generation of institutionalists and theories dealing with macro-dynamics, in particular those proposed by Keynes, Kalecki, and Schumpeter. The main landmarks of this bidirectional dialogue are the following.

Keynes' institutional approach is integrated in his theory of effective demand and that of preference for liquidity (as emphasised in Crotty 1990; Dillard 1980; Dymski 1994; Keller 1983; Niggle 2006; and Whalen 2001, 2008a). Since investment is the main variable that determines changes in production and employment, entrepreneurs make investment decisions depending on their expectations in contexts of radical uncertainty, so they assume certain rules of collective behaviour. These rules give rise to the reign of pessimistic expectations when the economy is in recession and call for public intervention to revive the mechanisms driving private investment. Likewise, since capitalist economies are monetary, money is susceptible of alternative uses so that companies and households' financial behaviour is based on social habits.

Kalecki's institutional approach (emphasized by Dymski 1996, 2012; Feiwel 1975; Mott 1982; and Sawyer 1985, 1999) finds its origins in the Marxist political economy approach. The systemic features derived from the capitalist character of the economy determine the connection to socio-institutional factors of the investment decisions, income distribution and the process of capital accumulation. His interpretation of the cyclical dynamics of the economy reaffirms the importance of income distribution, which is conditioned by the conflict between entrepreneurs and wage earners and by the struggle between private companies to enhance their market power. Likewise, the institutional elements are present in the relation that exists between investment decisions, demand for credit and the banks' money supply.

Schumpeter's theoretical proposals are somewhat remote from the previous two, but he shares their eagerness to understand economic dynamics, in his case long-term capitalist development, by emphasizing the importance of institutional factors (see Bellofiore 1985; Mazzucato and Wray 2015; Minsky 1990; and Whalen 2001). A certain type of entrepreneur, endowed with specific institutional qualities, is decisive for the application of technological innovations, which determine the cyclical trajectory of capitalist development and the discontinuous transformations in production structures and markets' anatomies. Likewise, institutional factors guide imitation and outperformance behaviour of other entrepreneurs who wish to compete with the innovators, which ultimately results in a growing dissemination of technological advances, changes in corporate culture and social habits.

The institutional authors on the other hand proposed several affinities with macro dynamic approaches. First, they connected with the Keynesian analysis of money and investment: Keynes and institutionalism resemble two trains that move along parallel paths towards a common destiny (Peterson 1977). Dillard (1987), Brazelton (1981), and Keller (1983) refined the connection between Keynes' monetary thesis with financial institutions and the importance of finance in the functioning of the economy. Second, they analysed technological innovation through the interaction of habits, rules and normative frameworks, so that economic processes are associated with trajectories of technical progress that combine daily routines with incremental change and with the modification of these trajectories (for the connection between institutionalism and evolutionism see Nelson and Winter 1982; Dosi 1988; Pérez 2002; Hodgson 1999; and Pelikan 2014). Third, they connected with economic growth and its stages (Kuznets, 1968) and with the specific conditions in underdeveloped economies (Myrdal 1953). Fourth, they studied corporate decision-making and market performance: Galbraith (2001) examined changes in the ownership, governance, and management structure of firms, and its relationship with strategic decisions of large corporations.

2.2. Minsky as a crucible: the financial and structurally unstable nature of capitalism

Hyman Minsky fused several previous contributions relating to the financial and macro dynamics of capitalism, proposing an explanation of economic structural instability and strengthening the theoretical connection with the main proposals of the institutionalist approach. This connection is emphasised, among others, by: Arestis and Eichner (1998), Arestis, Nissanke and Stein (2003), Dymski and Pollin (1992), Mazzucato and Wray (2015), Papadimitriou and Wray (1998), Whalen (1996, 1999, 2009, 2012), and Wray and Papadimitrou (1997).

From his earliest works, Minsky assumed that capitalism is monetary, production growth depends fundamentally on investment, and firms make their investment decisions under conditions of radical uncertainty. From these premises, he summarised a set of proposals relating to the financial character of capitalism, proposals that were present in Keynes's theory and, to a large extent, also in Marx:

Money is at the beginning and final stages of the economic process, so that financial decisions precede production and follow exchanges.

Economic agents are faced with decisions on purchasing assets, obtaining funding by acquiring payment commitments (based on expectations of future and uncertain income), and managing cash flows.

Financial markets (loans and securities) play a decisive role in the economy, starting from the fact that they are determinant of investment decisions.

The main purpose of savings holders' is to increase their quantity of money (wealth); financial markets being the means to accomplish that.

Financial markets' growth displays a pattern that maintains a greater/lesser relation to the production and exchange of goods at different points in time, since a priori there are no guarantees as to what the allocation of available money by savings holders will be.

At the same time Minsky delved into the Keynesian proposal relating to the specific nature of banks as capitalist firms, the functioning and strategies of which are guided by their purpose to enhance financial profits. Because of that, their main function is not defined by the technical work they perform as intermediaries between holders and seekers of savings, but as liquidity makers through loan provision and operations in capital markets (Ruiz and Cristian 2019; Ruiz, Stupariu and Vilariño 2016).

During the 1980s Minsky (1986a, 1990) refined Schumpeter's explanation of the significance of technological innovation in two ways. On the one hand, investment in new technologies requires prior funding for the generation of uncertain future revenues. On the other hand, financial institutions promote financial, which tends to modify their balance sheets in ways that enhance profits but also enhance risks.

At the same time, accepting some of Kalecki's and Schumpeter's proposals, Minsky (1986ab, 1990, 1992ab, 1993) formulates an explanation of economic cycles centred on the relationship between finance and investment:

The pursuit of profits is the motivation behind any capitalist company's investment decisions.

Investment is largely possible due to loans obtained from financial institutions. Thus, the dynamics of capital accumulation involves a relationship between long-term investment decisions in capital goods and short-term financial decisions on how to finance investment.

Borrowers and lenders make financial decisions based on predictions of uncertain future income; income upon which debt payments depend. At the same time, investment and financing decisions determine structural changes in the economy, the results of which will in turn influence financial decisions.

Technological innovations (productive and financial) extend the scope of structural changes, disrupt equilibrium, stimulate growth, and promote new financing and investment decisions.

However, Minsky's main theoretical contribution consists in explaining the structural nature of financial instability in capitalism. Originated in the seventies, it gained greater consistency in Minsky (1982, 1986a), and was further developed in the 1990s. Formulated as the "Financial Instability Hypothesis", it explains the structural tendencies of capitalist economies towards financial instability: firms (both productive and financial) move from soundness to financial fragility through a sequence of three phases (hedge, speculation, and Ponzi), characterized by the decreasing capacity of borrowers to meet their debt's payment obligations, of either the principal and/or interest.

Initially, credit demand is supported by the increase in production, income and profits during the expansionary phase of the economy. Favourable expectations stimulate the undertaking of greater levels of debt which banks cover by increasing the credit supply. Following this stage, borrowers start experiencing troubles repaying their debts because of lower-than-expected cash flows, either due to overly optimistic expectations or because sales are delayed or defaulted upon due to changes in economic conditions. This triggers a credit crunch effect on banks, who either reduce credit supply or raise interest rates, both of which contribute to worsening the situation of indebted companies. Consequently, firms weaken their balance sheets on the liability side (struggling to repay debts) while banks do the same on the asset side (default or credit risk). During the third stage, the financial fragility of debtors and creditors worsens to a degree that depends both on the debt level and the financing conditions, as well as on the risks of the investment projects undertaken with those funds.

The outbreak of a financial crisis occurs when the chain of events affect a significant number of insolvent debtors, unable to face their payments. Liquidity is then disrupted in money markets, asset prices fall as debts are settled, liquidity in capital markets is interrupted, income flows from borrowers and lenders are gradually drained, and financial balances get on the verge of bankruptcy. A period of debt deflation then follows (Ruiz and Cristian 2019).

Minsky's theoretical proposal therefore contains two central contentions. First, crises are endogenous to capitalism insofar financial stability is only a stage of a journey towards instability (McCulley 2009). Both phases interact with feedback loops in a cyclical pattern that swings from strength to weakness and vice versa. Second, there is a structural relationship between the balance sheets of all economic agents, who become catalysts and propagators of financial instability and, eventually, of a default chain.

This is therefore an endogenous and structural pattern, the explanation of which requires integrating the following institutional features. First, public authorities have the power to enforce a system of rules and interventions that compensates for the procyclical nature of financial instability and/or moderate its consequences when crises unfold. Second, different forms of corporate ownership and financial management evolve over time, which affect borrowers and lenders' behaviour and form part of the growth regimes that have characterized the historical stages of capitalism. Accordingly, Minsky (1993, 1996, with Whalen 1997) argues that changes that took place since the 1980s included a new stage which he called "Money Manager Capitalism", whose main features were the tendency to merge commercial and investment banking activities3 and the overwhelming power exerted in many sizable companies by managers of large investment vehicles (mutual and pension funds, insurance companies and others), who owned shareholder stakes that gave them control positions over those firms (further reference: Mazzucato and Wray 2015; Papadimitriou and Wray 1998; Whalen 1997, 1999, 2002, 2009; and Wray 2009, 2011).

2.3. Institutional frameworks, power relations, and financialization

2.3.1. Institutional frameworks

Three lines of research converge to emphasize the importance of characterizing the institutional frameworks where financial activities occur. First, those authors who analyse the relationship between financial instability and the functioning of institutions (in addition to the referred works of Dymski, Whalen and Wray, see: Nissanke and Stein 2003; Arestis et al. 2003; Sinapi 2011; and Brazelton and Whalen 2011). Second, literature that incorporates financial elements in characterizing types and/or stages of capitalism (Amable et al. 2005; Boyer 2000, 2005; and works of comparative political economy by Hall and Soskice 2001; and Hall and Gingerich 2004). Third, authors who study last decades' financial crises (regulationists: Aglietta 2001, and Boyer 2000; marxists: Brunhoff 2006, and Duménil and Lévy 2006; post-keynesians: Crotty 2009, Dallery 2009, Dymski 2012, Hein 2012, Palley 2007, Whalen 2002, and Wray 2009, 2011). Most of these approaches emphasise the singularity of finance within economic activities, the specificity of financial institutions as capitalist firms, and the importance of funding in growth dynamics.

[3] However, one added fact needs to be stressed here: it was mainly commercial banks that engaged in investment banking activity as business in securitization was thriving. They had the strength and capital base to do so, as opposed to investment banks, which needed to submit to more stringent regulations and raise sufficient capital in order to be allowed to take retail deposits and extend loans.

Returning to Commons, Arestis et al. (2003) propose a taxonomy of institutional structures based on five components that they classify into two groups. One comprises the informal or unorganized components: (a) de facto practices created in each economic context, and (b) the individual incentives of agents, acting as reward and sanction mechanisms for their behaviours. The other group comprises the formal or organized components: (c) normative regulations established by laws and other higher ranked dispositions, and (d) oversight by enforcement agencies that ensure regulatory compliance. Between the two pairs of components the authors place a fifth one that can pertain to any group: (e) the rules that confine the boundaries of agents' operations, which can established through either informal or formal mechanisms.

This classification can be applied to finance in order to characterize institutional frameworks. In concrete, the relative importance and existing connections between formal and informal components determine to what extent institutional frameworks can be said to entail more/less regulation over financial activities (more/less regulation in the sense of more/less restrictions over financial activities, be these formal or informal).

On the one hand, the predominance of de facto behaviours, individual incentives, and informal rules (i.e. informal components) tends to define a scarcely regulated institutional framework whose functioning is thus mainly determined by agents freely operating in financial markets. More concretely, financial entities are able to determine the size and functions of financial markets, via their financial instruments and operations. Furthermore, Keynes provided a collection of features of financial activities when these are guided by private forces: 1) decisions based on the profitability-risk analysis of investments in financial assets, 2) primacy of liquidity, based on the guarantee and the speed of asset revaluation, and 3) decisions guided by short-term objectives. Minsky's analysis and other authors complete this set of characteristics: (4) procyclical nature of risk-taking, (5) excessive expansive and contractive reactions, (6) abundance of financial innovations, (7) asymmetrical position of agents operating in these markets and herd behaviours in decision-making, (8) reward mechanisms that facilitate adverse selection in decision-making, (9) short-sightedness in the assessment of large systemic risks, and 10) tendency to converge towards weaker balance sheet positions.

On the other hand, the predominance of formal components tends to define an increasingly regulated institutional framework, under which financial activities and participating agents are governed by state bodies, responsible of establishing and enforcing regulations (Stupariu, Ruiz and Vilariño 2019). In this case, two types of forces coexist in guiding financial activities: those stemming from capitalist rationales and those derived from state regulatory (restrictive) rationales, the latter tending towards: 1) limiting risk-taking, 2) restraining expansive-contractive cycles; 3) monitoring financial innovations; 4) greater transparency of operations; and 5) preventing the emergence of systemic risks.

This is, therefore, an approach that compiles the three fundamental premises of the institutionalist approach: a) it reveals the duality between formal and informal components, b) it explains what kind of institutions (practices) prevail in each institutional framework depending on prevalence of formal or informal components, and c) it explains that institutional frameworks are historical and therefore may change over time. A framework will be stable as long as the original or inheritance factors persist, leading to inertial dynamics; it will become unstable when evolutionary factors induce a dynamic of partial changes; and it will turn into a different one when further transformation of the combination and hierarchy of its components leads to a qualitative mutation.

2.3.2. Power relations

Political economy approaches brought power relations into the study of financial activities, as well as of their connection with institutional frameworks and economic dynamics. The premises of this analytical perspective go back to Hilferding, a pioneer in studying financial capital, with relevant later contributions made by Galbraith (2001) and Polanyi (1997) among others (Dymski 1994, 2011; Dymsky and Pollin 1992; Bakir 2013; Boyer 2000; Hein and Treecker 2010; Palermo 2000; Seabrooke 2006; and Sorkin 2009).

The starting point of this approach is that power relations are constitutive of any economic system and, therefore, constitutive of capitalism – where production, distribution, and accumulation are influenced by the specific shape and intensity that the power of capitalists takes (Palazuelos 2015). The power of capital owners over financial activities is, in any case, exercised by the financial institutions and social groups who accumulate wealth in liquid form (money) and in securities (stocks, bonds). This wealth is managed by banking entities, particularly investment banking entities, which deal precisely with asset management and with investments in financial products traded in capital markets. In other words, power is held by the owners and executives of big banks together with the high net worth individuals– both of whom are frequently connected to the main owners of large industrial, mining, commercial and other non-financial firms. However, it is important to distinguish between the two as separate groups, although intrinsically linked to one another. The financial institutions are at the service of capital owners, whose wealth they manage in order to obtain a yield on it. Although part of the capital owners hold high ranking positions in finance, not all of them are bankers4.This power is relational (based on authority) when bankers and large fortunes impose or condition the decisions of political authorities, while it is structural (based on de facto actions) when they impose their interests through their activities in the financial markets.

[4] See Forbes 100 richest people in the world: among the first 10 ranked billionaires only two are related directly to financial services, namely Warren Buffet and Michael Bloomberg. The other eight are the CEOs of companies like Amazon, Facebook, Google, ZARA, telecom industry in Mexico or Microsoft, among others.

Consequently, the existence of power relations in finance requires that at least three features are considered. First, banks are not solely defined by the activities they perform, and even less by only one of them, the intermediation in financial markets, but by their being capitalist corporations with the purpose of obtaining benefits for their owners and for the large private fortunes whose assets they manage.

Second, collusion (between large firms) and dominion relations occur within the financial sector, which are determined by the correlation of forces between banks and other financial agents. Even within a single entity, tensions arise between divisions or departments who perform different functions, which express differences of interest when it comes to profit-making expectations.

Third, financial powers are connected with another relevant player: the State. As a political authority, it can exercise relational power by establishing formal institutional components that restrict financial activities. But, at the same time, conditioned by the power of large financial entities, relevant policy-making bodies can become channels of transmission for these entities' interests and establish normative provisions that actually deprive the State of the capacity to restrict individual actions through regulation and supervision.

Therefore, whether formal or informal components predominate in each institutional framework will depend on the power relations between the State and private financial groups. A more regulated institutional framework reflects that the State has the power to restrict the conduct of private actors, rendering that the financial activity is subject to both private and regulatory forces. And a poorly regulated institutional framework expresses the predominance of private financial power and, hence, financial activities governed by private forces.

2.3.3. Financialization and the current stage of capitalism

Some other authors have studied transformations of the world economy since the 1980s and highlighted the emergence of a new historical stage of capitalism. Although from several theoretical perspectives, their emphases coincide on two interactive features: an intense liberalization and internationalization of a large part of economic activities; and the increasing strength of financial capital with respect to the dynamics of both national and global economies. This second feature has given rise to the term "financialization", referring to the great importance of:

financial capital over other forms of capital (industrial, commercial) in the capital accumulation dynamics;

large banks and other financial agents over the financial decisions of other companies, governments and households;

greater profitability of financial investments over those proceeding from other activities, which shift to an increasing proportion of corporate profit being captured by financial institutions;

the enormous magnitude of financial exchanges as opposed to trade in goods and services;

financial decision criteria over other mercantile and/or social criteria;

financial objectives in the strategies of non-financial corporations with respect to their funding mechanisms, investments in financial assets, production restructuring and other fundamental aspects;

the unstable and compulsive dynamics of financial activities over general dynamics of the economy.

That being said, we need to stress out that financial markets are, from this perspective, a different channel for profit maximization of the wealth held by capital owners and extracted from the other non-financial sectors of the economic activity.

The thesis of financialization therefore holds that, given power relations favourable to financial capital, financial activities determine institutional frameworks and macroeconomic dynamics. On the one hand, the institutional framework, dominated by financial agents and markets, becomes scarcely regulated with predominance of informal habits, de facto behaviour, individual incentives and private rules. On the other hand, economic dynamics are determined by financial agents and markets that recurrently lead to speculative bubbles, conditioning the behaviour of business investment, household consumption, public spending, income distribution, price stability, and the external sector (see: Eatwell and Taylor 2000; Hein 2012; Lazonick and O´Sullivan 2000; Palley 2007; Palazuelos 2011, 2015; and Stockhammer 2009).

In turn, financialization has altered power relations within the financial activity, both for the operating agents and in capital markets. Large banks and certain hedge funds, private equity and mutual funds are dominant due to the amount of resources they own as well as of those obtained via excessive leverage ratios by operating in markets at greater risk, allowing them to increase their margins. The instruments and ways of operating in these markets are subject to permanent innovation in order to circumvent public controls, obtain competitive advantages and expand the scope or size of their businesses.

3. An institutional approach to finance and its concretion for investment banking

3.1. Fundamentals for building-up an institutionalist approach to finance

We next summarize and combine those tenets of the three reviewed streams of literature that allow us to propose an institutionalist approach to finance. These are the basic contentions of the institutionalist tradition: 1) Institutions are the set of habits that organize the relationship of a social group with its individuals. 2) Institutions are composed of formal components (laws, public bodies and administrative rules) and informal components (de facto behaviour, individual incentives and rules agreed upon by private agents). 3) Institutions change over time due to the tension created by the interaction of three types of factors: those of inheritance which generate processes of inertia; those of evolution which incorporate new aspects and/or modify partial aspects; and those of mutation which transform the conditions and relations between institutions.

The revised literature on political economy and macro dynamics (with Minsky's outstanding contribution) presents the following conclusions: 1) Investment, financing and liquidity decisions are taken in contexts of radical uncertainty. 2) Partly because of the above, risk-taking and financial innovations have a pro-cyclical behaviour and generate fragility in the agents' financially interconnected balance sheets. 3) Capitalism is a structurally-unstable system due to the procyclical nature of finance.

This can be completed with the following contributions on institutional frameworks for finance and their connections with general economic dynamics:

A financial institutional framework represents a specific shape of the institutions existent in financial activity; shape that depends on the particular hierarchy and combination between formal and informal components.

A financial institutional framework is more regulated the greater the prevalence of laws, agencies and rules established by public authorities to prevent, monitor and intervene in financial activity. On the contrary, an institutional framework is less regulated the greater the prevalence of de facto behaviour, individual incentives and the rules established among private agents.

A more regulated financial institutional framework responds to a power structure where State decisions prevail in order to try to minimize financial risks. On the contrary, a less regulated framework responds to power relations where dominant private forces prevail.

A financial institutional framework tends to reproduce itself when inheritance factors dominate and becomes evolutionary as new factors appear and/or disappear, without altering the hierarchical relationship between formal and informal components.

A financial institutional framework undergoes mutation or radical change, when transforming factors occur that substantially alter the hierarchy and the combination of its components.

In historical terms, each stage of capitalism is characterized by a specific type of interaction of the systemic connections between financial activity, its institutional framework and economic dynamics.

3.2. Investment banking

Investment banking is the financial activity dealing with the creation and trading of securities that constitute property rights over physical assets or granted loans (interchangeable through purchase and sell transactions in their respective capital markets) and other non-security instruments that are also traded in those markets. Traditionally, firms operating in investment banking have carried out this activity around a set of services such as advisory, intermediation, or asset and wealth management, and for which they have obtained remunerations, commissions, and other types of income. Among these services the most prominent are the following:

The issuance or underwriting of stock and bonds in primary markets directed to large and/or retail investors.

Brokerage or trading in secondary markets on behalf of clients who wish to purchase or sell those securities.

IPOs (Initial Public Offering) representing a first offer of shares for companies who wish to be listed on a stock exchange.

Management services for companies and investors that intend to buy or sell other companies through mergers or acquisitions, or through public offerings.

Providing consulting services to companies on risk management, financial control, liquidity management, corporate strategy and other services.

Wealth management for high net worth individuals, by offering investing opportunities in financial assets to enhance returns in the capital markets.

However, in addition to the revenues generated by these advisory and brokerage services, investment banking entities also participate as private investors in the markets, that is, taking their own trading positions which can result in net worth profits or losses.

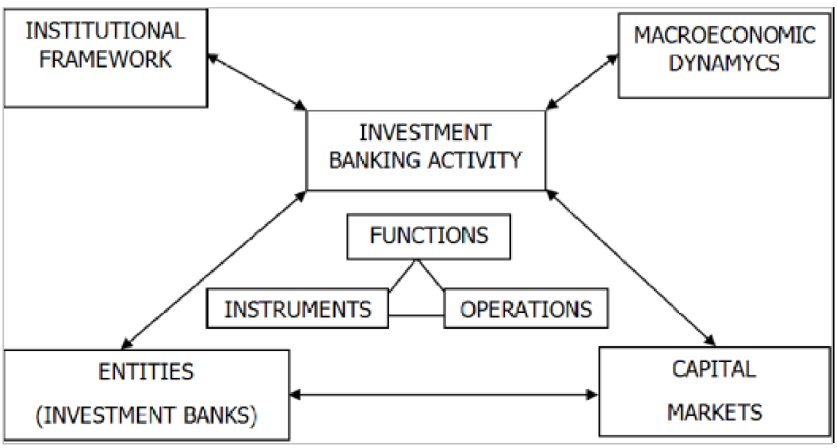
Investment banking firms, in order to maximise profits by use of the aforementioned services and investment strategies, use their own capital resources, put forward by their owners (and new buyers, via capital increases). Only if these entities also engage in commercial banking (combining the functions of universal banking) can they obtain funding via customer deposits; otherwise, the means of securing external funding relies on bond issuance and securing loans.

As part of the financial activity, investment banking can be modelled as a concretion of the previously proposed framework (see graphical representation in Diagram 1): Investment banking is part of financial activities and, therefore, interacts with the institutional framework and with general economic dynamics; it is a particular type of financial activity carried out by the firms that operate in capital markets; capital markets function by means of financial instruments (securities and others) that are created and traded through various types of operations; the specific characteristics of these instruments and operations define the functions of investment banking; as capitalist corporations, the firms involved in financial activities make decisions based on a cost and risk assessment, on one hand, and the profitability expectation from the operations that they perform in markets, on the other.

The articulation between investment banking (as part of the general financial activity) and macroeconomic dynamics is visible in the opportunities the former offers to finance business investment, which in turn is the main variable that determines economic growth; this financing process is an indirect one, where banks act as intermediaries for firms in order to raise capital in the financial markets; and at the same time investment banking provides holders of savings, as investors in capital markets, the chance to enhance their own profits.

And, on the articulation between investment banking and institutional frameworks, the following could be said (similarly to what was previously established regarding overall financial activities): an institutional framework is a precise configuration of the institutions that determine how agents operate in capital markets; an institutional framework is more/less regulated depending on the hierarchy between its formal/informal components, as an expression of the power structure where public authorities/private agents prevail; an institutional framework is stable when the hereditary factors that compose it reproduce themselves, becoming unstable when evolutionary factors gain momentum; and it experiences mutation when transforming forces, modifying the hierarchy and combination of formal/ informal components, become dominant.

Diagram 1. Synthetic representation of an institutionalist approach to finance applied to investment banking activity



Source: Autor's elaboration.

Consequently, the systemic connections where investment banking interacts with its institutional framework and macroeconomic dynamics will be stable in periods when hereditary factors guarantee the reproduction of behavioural patterns in the three spheres (investment banking-institutional framework-economic dynamics). Over time, the appearance of evolutionary factors in each of the three spheres may modify their interaction. Finally, the prevalence of transforming factors may lead to a radical alteration of these systemic links.

3.3. Categories of analysis and general research questions

The proposed institutionalist approach to finance provides the categories of analysis and the general research questions based on which we believe historical events related to finance, or in particular investment banking, can be studied.

First, our approach provides the categories of analysis for approaching particular (historical) developments in investment banking:

Three subsets of elements, each with their respective components:

The institutional framework with formal and informal components within it.

Macroeconomic dynamics, including corporate funding by raising capital in the financial markets and the investment of savings in these same markets.

Investment banking with its two components: capital markets (instruments and operations that define investment banking functions) and entities carrying out this activity.

Interconnections between the three areas as well as within investment banking:

The connections between investment banking, the institutional framework, and macroeconomic dynamics.

The connections of investment banking with capital markets and entities performing said activity.

Second, our proposal provides general research questions to approach the explanation of evolutions in those categories: 1) how were the categories shaped?; 2) to what extent the factors of inheritance, evolution, or transformation have prevailed for each category?; and 3) what where the results of transformations, based on whether they implied inertias, partial changes, or radical mutations?

4. A synthetic application to investment banking in the United States

The categories of analysis and general research questions can turn into concrete research questions and hypotheses for the study of particular historical phenomena – such as the aforementioned stylized facts regarding US investment banking during 1981-2008. Hypotheses could be as follows:

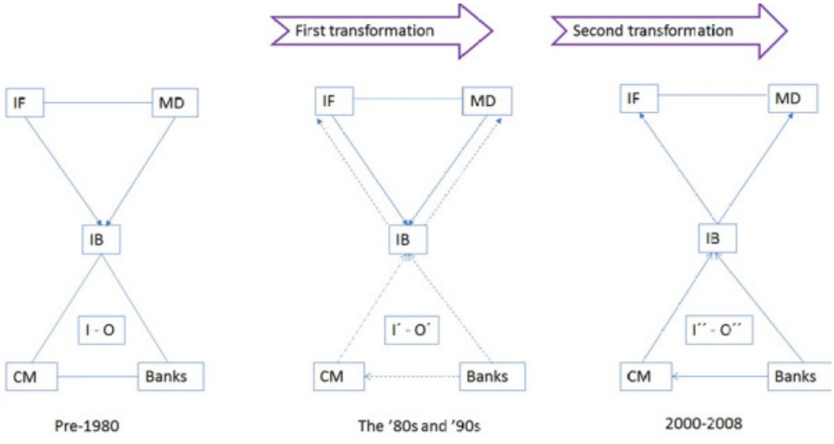
1) Relevant changes in investment banking imply the existence of a stable starting point, and stability should be observable in all the aforementioned interconnections of investment banking. Also, that changes were relevant implies that investment banking must have experienced mutations due to the predominance of transforming forces in each of the three research areas and their interconnections.
2) Since the removal of the rule that banned the merger of commercial and investment banking activities is considered to be of particular significance, relevant differences should be found with respect to the development of investment banking prior and post the 1999 derogation

– differences that, again, should be observed in each of the three research areas and in their interconnections.

3) If the financial crisis that started in 2007-08 was not due to factors exogenous to the functioning of investment banking, the referred transformations should allow us to explain the crisis. This requires proof that said transformations drove both the growth in investment banking and the crisis.
4) Given that the crisis was found to be widespread and to bring on the verge of bankruptcy all of the large banks involved in this activity, it should be describable as systemic or structural in Minsky's terms (that is, as the result of a progressive rise in the structural fragility of the balance sheets of these large banks).

Using the analytical framework set out above, and by exploring these hypothesis, we identified two articulated transformations that ultimately led to the unfolding of the crisis in 2008 as an endogenous and systemic crisis5 (see a graphical depiction of these transformations in Diagram 2).

DIAGRAM 2. THE TWO TRANSFORMATIONS IN INVESTMENT BANKING ACTIVITY



IF: INSTITUTIONAL FRAMEWORK; MD: MACROECONOMIC DYNAMICS; IB: INVESTMENT BANKING ACTIVITY; CM: CAPITAL MARKETS; I: INSTRUMENTS; O: OPERATIONS.

Source: Authors' elaboration.

[5] Due to space limitations, and to the fact that this section is intended simply to illustrate the applicability of the analytical framework to the study of a certain sphere of the financial activity, we can only summarise here the results of a deeper analysis of the US crisis.

4.1. First transformation

The first transformation consisted essentially in the emergence of: 1) the primacy followed by the predominance of informal institutional components; 2) new forms of financing and investment in the capital markets; 3) new instruments and operations that expanded the investment banking functions along the lines of proprietary trading and financial engineering; 4) an oligopolistic structure of five large banks.

First, during the 1980s and 1990s, the institutional framework of investment banking shifted from the full predominance of organised components to the increasing prevalence of informal ones mirrored by the gradual decline of the former.

The State exercised as a main transforming actor. The Reagan Administration and the Congress were derogating some of the existent laws and regulations, and paralysing the fulfilment of others that were still in force. On the one hand, they endorsed a new set of legislative measures comprising the Net Capital Rule (NCR), the Rule 415 on the Self-Regulated Organizations, Garn Saint Germain Act and the Rule 144-A, which removed most of the regulations in force since the 1930s. On the other hand, the responsible federal agencies were showing restrain and found it increasingly more difficult to exercise their supervisory and regulatory tasks. From this set of regulations, the most important one for the investment banking activity´s boom was the NCR, which allowed entities over a certain size in asset management to incur in greater levels of leverage, on the basis that they were more resilient and better capitalized than the smaller sized banks.

On the contrary, the informal components consolidated in the financial markets via de facto behaviour, decisions guided by individual incentives and/or rules agreed directly by private agents. To such an extent that, towards the end of the 1990s the only fundamental rule still in force (introduced by the Glass-Steagall Act in 1933) was the ban on commercial and investment banks to merge their respective activities in the financial markets.

Second, macroeconomic dynamics shifted from the predominance of traditional forms to new forms of both business financing and the financial investment of savings. Decisions by the Reagan Administration and the Congress also supposed a major transformative factor, through monetary and exchange rate policies, a strong federal deficit, and a growing external deficit. This fuelled further the development of investment banking activity since it provided it with growing debt markets for newly issued Treasuries to finance the public deficit, as well as growing capital markets where corporate business would be able to issue shares in order to raise capital and expand production. At the same time, the external commercial deficit implied that more external financing was going into the US markets from abroad, seeking greater profitability rates and the activity in these capital markets was intermediated by investment banks[6].

At the same time, however, these changes took place in a context of rapid internationalization of the economy and the surge of important technological innovations. Previously, the growth slowdown and monetary instability had begun in the 1970s in the midst of the Golden Age model crisis, and subsequently, after 1992, the growth rate rose again and domestic monetary tensions eased.

Third, the functioning of the capital markets changed from the predominance of traditional instruments and operations, employed by investment banks in performing their brokerage and advisory functions (for borrowers and lenders), to a growing importance of new instruments and operations which extended these two traditional functions to proprietary trading and financial engineering. In an institutional framework of increasing predominance of informal components, three new types of instruments grew significant: junk bonds, securitized products, and derivative instruments. Their extended use, together with that of traditional ones (bonds and shares), modified the operations carried out in capital markets, especially in corporate finance: mergers and acquisitions, leveraged buyouts, takeover bids, bought deal operations, and IPOs. The emergence of junk bonds significantly fuelled the leveraged buyout fever and IPOs of start-ups in the 1980s and led to enormous profits for the investment banks who were in the middle of every trade. Likewise, securitization of loans in order to take the risk out of the lender´s balance sheets was very profitable for investment banks, as they created the securitized pool of loans on which they issued securities and sold them to investors all over the world. As for derivative instruments, investment banks designed two important innovations on which their business thrived: The Interest Rate Swaps (IRS), meant to hedge the risk of owning a floating rate loan for a long period of time, and credit derivatives (CDS) meant to hedge the risk of default on the borrower´s side.

The corporate funding mechanisms grew increasingly linked to these new instruments and operations; at the same time, savings holders found greater possibilities to enhance the profitability of their financial investments. Investment banks that previously limited their activity to advisory and brokerage functions found multiple opportunities to scale it up, to trade on their own proprietary accounts (as investors) and to multiply their innovative (engineering) capacity in instruments and operations.

Fourth, the business capacity of investment banks mutated from the existence of a large number of small financial entities whose possibilities of expansion were limited by the institutional framework and by the functions they performed in the economy, to an oligopolistic structure in which five large investment banks accounted for most income, profits, and capital.

[6] There are other instances of crises for which the literature attributes a role to monetary and exchange rate policies, as well as of trade deficits, in the expansion of finance before the occurrence of a financial crisis (see, for instance, Fernández and García, 2018, for the case of Spain).

The financial and technological capacities acquired by these banks while exerting their functions became levers of power that further consolidated their dominant position in capital markets. Mergers and acquisitions between banks strengthened this dominant position.

Risk exposure of the big banks grew with the expansion of new instruments and operations: greater size of operations, greater leverage, increased speculation, greater uncertainty and volatility of the markets. Three major banks leading some of the newly emerged markets incurred in risk levels that led to their bankruptcy, and eventually disappeared: Drexler-Burnham-Lambert, Salomon Brothers, and Bankers Trust. Therefore, with the exception of these three relevant cases, signs of financial fragility did not lead to serious balance sheet imbalances in most investment banks, not rendering a generalized crisis in investment banking.

4.2. Second transformation

The second transformation that we identified by using our analytical framework took place starting in the late 1990s, and was characterized by the emergence of: 1) full predominance of informal institutional components; 2) new forms of financial investment in capital markets, which led to an economic growth driven by a financial bubble; 3) the predominance of new instruments and operations that favoured the proprietary trading function and its connection with financial innovation for investment banking entities; 4) an even more powerful and concentrated corporate structure, dominated by five investment banks and four large commercial banks.

First, from the late 1990s onwards the institutional framework mutated from the increasing predominance of informal components and the gradual decline of formal components to a full predominance of the former.

The decisive factor was the approval of the Gramm-Leach-Bliley Act (GLBA), which removed the ban on commercial banks from incurring in investment banking, allowing therefore the two types of activities to merge. In addition, the Commodity Futures Modernization Act imposed a ban on the future establishment of rules regulating credit derivatives, and at the same time the federal agencies were holding back in the face of growing evidence of irregularities and legal non-compliances (HOEPA, New Net Capital Rule, SOA), with respect to the mortgage loans granting process and financial products based on these loans. But the first two regulations were key for the surge in the investment banking activity. As we mentioned before, GLBA allowed particularly commercial banks to incur in the securities business, acting as intermediaries, or on their own proprietary accounts. This favoured the conformation of sizeable financial conglomerates functioning as universal banks with operations at a global scale and able to move the financial markets with their positions. CFMA on the other side, prevented the regulators to look closer into the derivatives market which was thriving at the end of the 1990s, and became a major concern with the outbreak of the financial crisis in 2007, due to massive trading of CDS.

The GLBA shaped the dominance of big banks over investment banking and the subordinate position of public authorities to this financial power. Investment banking was then governed by practices, incentives and rules of action instituted directly by private agents that participated in markets through the shadow banking system.

Second, macroeconomic dynamics mutated from the connection between the new forms of corporate financing and the financial investment of savings to the predominance of new forms of financial investment opportunities in capital markets, leading to economic growth driven by a financial bubble. Since the mid-1990s there have been spectacular increases in the private sector's domestic debt and the external debt of the economy with the rest of the world. The economy pegged its growth capacity to the speculative spiral of the stock markets first (Nasdaq and Wall Street) and then to the double spiral unleashed around the real estate business and mortgage-based instruments (securitized bonds, structured products and credit derivatives). These products, as we know, were massively traded in the global financial markets, bestowed with the highest grades by the rating agencies and outside the perimeter of true regulatory norms that applied to the commercial banking activity. What is more, through the shadow banking system these trades were allowed to expand unlimitedly bringing in extraordinary profits to banks involved in securities business.

Consequently, this second transformation did not have a significant impact on corporate financing arrangements, but focused on the greater and better opportunities of financial investment for the participants in those markets where the twofold speculative bubble was taking shape.

Third, the functioning of capital markets changed from the combination of instruments and operations with which investment banking performed the functions of brokerage, advisory, financial innovation and proprietary trading, to the predominance of new instruments and operations favouring the proprietary function and its connection with financial engineering of entities involved in investment banking.

In an institutional framework based on full predominance of the informal components, three new instruments (MBSsp or subprime mortgage-backed securities, CDO or structured products based on these loans and bonds, and CDS or credit derivatives linked to these underlying assets) gradually grew in significance, as did complex operations based on these instruments. And they fuelled the real estate-financial bubble and the gradual change in hierarchy between the functions performed in investment banking, with the resulting predominance of proprietary trading in these products and financial engineering at its service.

From the capital markets perspective the shift in hierarchy between the four functions reflected the pre-eminence of financial investment opportunities in these MBSsp, CDO and CDS markets.

Fourth, the business capacity of investment banking entities turned from an oligopolistic structure of five large investment banks to an even more powerful and concentrated structure, dominated by these five banks, together with four large commercial banks coupled with a significant presence of several large foreign banks. This core of financial power accounted for most of the income, profits, assets and capital, whose growth was spectacular in the markets related to the real estate-financial bubble.

The financial strength of the large commercial banks, turned into political ability, was decisive for the approval of the GLBA. But the financial strength of this new power core was instrumental in consolidating the full predominance of informal components within the institutional framework, the prevalence of the interests of financial investors in macroeconomic dynamics, and the modification of the hierarchy between the investment banking functions.

4.3. An endogenous and systemic crisis

The former analysis allows us to perceive the endogenous and systemic nature of the crisis. In a fully informalized institutional framework, the connection between money and capital markets, through mortgage loans, MBSsp, CDOs and CDSs, determined the fragility of the (interconnected) balance sheets of large banks and other banking firms leading to a systemic crisis.

The unfolding of the real estate-financial bubble fuelled excessive default and liquidity risks in particular, due to the massive and erratic use of those instruments and operations. These risks were heightened because of most banks and other vehicles' high leverage ratios, coupled with funding long term assets associated with mortgage loans with short term liabilities, mainly repos and commercial paper.

The revaluation of these assets driven by the real state-financial bubble intensified the concentration of MBSsp, CDO, and CDS in the balance sheets of large banks, even after the housing bubble burst in 2006. When in the summer of 2007 the accumulation-interconnection- concentration of risks reached a critical mass, the fragility of the balance sheets reached the point of no return. The domino effect of various crisis episodes precipitated agonizingly since the spring of 2008 and led to a general bankruptcy of the big banks and the financial system as a whole in September of the same year.

5. Conclusions

In this paper we have addressed two interrelated objectives. First, we have proposed an analytical framework that helps interpret historical financial phenomena in capitalist economies through the interconnections of finance, macroeconomic dynamics, and institutions. Second, we have carried out an exercise of applying this framework to the case of the US investment banking.

Regarding the former, we first build upon several strands of literature that, with different emphases, contribute to the understanding of connections between finance, macroeconomics, and institutions. Then, we propose a more concrete analytical framework for investment banking, as a part of overall financial activities; and extract from said framework categories of analysis and research questions.

As for the latter, we used the framework for investment banking to analyse the US in the period 1980-2008; and explore how the substantive transformations occurred in investment banking help explain the 2008 financial crisis as an endogenous and systemic financial crisis. It should be remembered, however, that in this paper we only show a synthetic application of the framework in order to exemplify its possible usefulness.

In this exercise of applying the analytical framework for the case under study, we were able to draw two main findings. First, the investment banking evolution during 1981-2008 is characterized by the existence of two consecutive and articulated processes. Second, the 2008 crisis is explained by the coexistence of two simultaneous processes: the first one concerns the expansion of capital markets and the economic strength of big banks; the other one revolves around the build-up and interconnection of risks between markets and the financial fragility of large banks.

After the conditions created by the first transformation, the essential circumstance for a systemic crisis to unfold was the merger between commercial banking and investment activities. With this, the full predominance of transforming factors took shape: informal components in the institutional framework; the interests of financial investors within macroeconomic dynamics; financial instruments and operations based on securitized bonds, structured products, and derivatives of subprime mortgage loans in capital markets; and the proprietary trading in these instruments and their overwhelming presence in the balances of big banks.

A huge and versatile State intervention avoided the collapse of the entire financial structure and a colossal bankruptcy of firms. But such radical intervention might be avoided if, through close observation of new developments in the three research areas (finance, macroeconomic dynamics, and institutions) and their interconnections, investment banking is better understood and, hopefully, reined in.

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