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The inevitable evolution of European financial markets

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1. Introduction

In the decades preceding the 2007-2009 international financial crisis and the related 'doom loop' between the European sovereign debt crisis and the European banking sector crisis (2010-2013), the external financing of the 'real' activities in the continental part of the European Union (EU) and – in particular – in the euro area (EMU) was focused on bank credit. Moreover, in that same area many banking groups had a dominant role (along with some insurance companies) in the management of household financial wealth.

This set-up of the EMU's financial markets is not only different from that of other economically advanced areas (primarily the United States); it has also been of crucial importance in supporting the euro area's economic growth. While denouncing inefficiencies, this specific European set-up has, in fact, allowed for the use of substantial portions of private wealth for productive purposes: the banks' creation of means of payment by-passed or – at least – mitigated the financial constraints potentially created by the qualitative gaps between the allocation of financial portfolios, selected by the majority of European wealth holders, and the composition of credit demand, carried out by the majority of non-financial firms in the various member states. This intermediation role, which justifies the existence of banks even in the theoretical models of general or partial equilibrium, has proved particularly valuable for European small and medium-sized non-financial firms which have had predominant influence in the productive apparatus of many EU's member states. In fact, these types of firms encountered particularly severe difficulties in obtaining direct financing from financial wealth holders.

Today, in the EMU financial markets, banks continue to enjoy the double quasi-monopolistic position just described. In this paper I maintain, however, that, in the subsequent stages of the abovementioned crises (starting in 2014), the role of the banking sector in the European financial markets began to undergo profound and irreversible changes and, therefore, is intended to lose its dominant influence in the external financing of productive activities and in the management of private financial wealth. If my interpretation of the imminent evolution in European financial markets was correct, it would mean that the structure of these markets will have to undergo profound changes. On the other hand, it should be stressed that, in many euro-area countries, small and medium-sized non-financial firms continue to play prominent roles. Therefore, alternative sources of financing of the European 'real' economy will have to be established; at the same time, however, the new non-bank financial institutions and the new bank business models will have to ensure that the role of financial

[1] The first draft of this paper was discussed in a meeting on *European Banking* at OFCE, Paris (April 4th, 2019). I would like to thank the participants of this meeting for their stimulating suggestions. I would also like to warmly thank Salvatore Rossi (SEP-Luiss) for his careful reading and helpful comments on a more advanced draft. An Italian version of this paper will come out in a collective volume published by Donzelli, Rome.

intermediation, dominated until now by traditional banking groups, will continue to be active even if in different forms and with different results.

This paper pursues a twofold objective: (i) to show that the evolution of European financial markets hypothesized above is reflected in a series of empirical descriptive data, which, though not providing clear-cut evidence in favor of our interpretation, make the latter plausible; (ii) to examine, with some detail, the main impacts that the transformation of the role of banks will have on the set-up of financial markets and on financial regulation in the euro area and in other parts of the EU (the so-called "Banking Union" (BU) and the so-called Capital Markets Union (CMU) process).

In order to meet these two objectives, some data are provided on the configuration of the different segments in the EMU financial markets at the turn of the recent international and European crises, establishing a comparison with the United States (cf. Section 2). Combining the results of this comparison with a few other indicators relating to the European banking sector, it then emerges that the current financial structure of the euro area will be unable to reproduce itself without modification over time (cf. Section 3). The inevitable evolution in the role played by European banking groups, however, leaves a number of unsolved problems (cf. Section 4). To overcome these problems, the regulatory initiatives already undertaken by the European institutions are not enough; it will also be necessary to achieve a different division of labor among the new non-bank financial intermediaries and the new functions carried out by the banking sector (cf. Section 5). This applies, in particular, to the Italian case, which is characterized by an extreme form of the problems that are typical of the euro area (cf. Section 6). The conclusions summarize the results achieved, pointing out that banks will continue to perform very important functions in the EMU financial markets even in the future.

2. Some features of the financial markets in the EMU

Although with some exceptions (France and a few other countries) and although with different incidence in the various member states, the non-financial firms of the euro area have so far shown a strong dependence on bank credit for their external financing. In this respect, it is sufficient to compare the composition of the financial debts of these same firms and of the corresponding US companies (cf. Table 1). We can easily verify that, between the end of the last century and the outbreak of the recent crises, on average bank loans accounted for nearly 30% of the total financing (debt and equity) of non-financial firms within the euro area; during the crises, this rate fluctuated between 33% and 38%, returning to around 30% in 2014 and aligning in 2018 to the lowest values present in the final part of the 20th century. In the same periods, the average rate of bank loans (including mortgages) on the total financing of non-financial firms in the United States did not significantly exceed 10% (with the sole exception of 2008); indeed, this rate was often slightly above 8%. On the other hand, between the end of the last century and the outbreak of the recent crises, on average euro-area firms made a very modest recourse to bond debts: the relative rate was usually below 3.5% of their total financing, and only in 2018 it reached the rate of 4%. In the same period, on average non–financial U.S. firms recorded rates of bond debts on their total financing that were never lower than 12% and – in some years – even higher than 15% (for example, 2002 and 2011).

The figures in Table 1 are reflected in those in Table 2, which shows the different rates of equities in relation to the total financial liabilities of non-financial firms in the euro area and the United States.[2] In both areas the weight of firms' equities issued on stock markets is directly correlated with cyclical changes in the market values of these same equities. This obvious similarity does not, however, weaken the profound differences between the two areas. From the end of the last century to the outbreak of the recent crises, the subset of non-financial firms in the EMU utilized, to a limited and decreasing extent, funding through equities issued on regulated stock markets (less than 15% of the total funding, with the exception of two cyclical peaks in 1999 and in 2005); and, only after 2014, the rate of issued equities on regulated stock markets is slowly came closer to the pre-crisis thresholds. Conversely, in the periods being analyzed, the analogous subset of U.S. firms used equity financing to cover on average more than 50% of its total funding (with the exception of 2002 and 2011);[3] and, in 2018, it returned to a rate of issued equities on total funding equal to the maximum rate (over 60%) reached at the end of the last century. It follows that the negative gaps in the weight of equity financing between non-financial euro area and U.S. firms ranged between 36 and 44 percentage points.

Table 1. Liabilities of non-financial firms: debt typologies

	US						Euro area		
	Debt securities			Loans				Loans	
	Corporate bonds	Commercial paper	Municipal securities and loans	Depository institution Loans	Other loans and advances	Total mortgages	Debt securities	Euro area MFIs Loans	Other credit Institutions Loans
2018-Q3	10,3%	1,2%	0,7%	4,0%	3,0%	1,5%	4,0%	11,8%	17,0%
2014-Q3	11,1%	0,5%	1,3%	2,1%	2,9%	1,0%	3,9%	14,1%	16,8%
2011-Q3	13,0%	0,5%	1,9%	2,1%	3,7%	2,2%	3,4%	18,1%	16,2%
2008-Q3	11,3%	0,6%	1,6%	3,0%	5,3%	3,5%	2,8%	19,1%	14,5%
2005-Q3	11,0%	0,5%	0,9%	2,4%	3,5%	2,8%	3,1%	15,6%	13,9%
2002-Q3	14,5%	0,7%	0,9%	3,9%	4,0%	2,3%	3,3%	17,7%	15,8%
1999-Q3	10,3%	1,2%	0,7%	4,0%	3,0%	1,5%	2,4%	16,0%	12,8%

Sources: ECB and board of governors of the Federal Reserve (FED)

[2] Table 2 would also make it possible to examine the specific weight of trade credits which are a form of financing within the whole set of firms. Here, however, there is no need to delve into the subject. It is sufficient to note that, for our purposes, the different forms of commercial credit are treated as self-financing for non-financial firms as a whole.

[3] As has already been noted, in those same years the lower incidence of equities was, at least in part, offset by the increased rate of bond financing.

Table 2. Liabilities of non-financial firms: equities

	US					Euro area			
			Other liabilities			Equity			
	Corporate Equity	Trade credits and advances	Taxes payable	FDI in U.S	Total Miscellaneous Liabilities	Listed shares	Unlisted shares and other equity	Trade credits and advances	Other Liabilities
2018-Q3	60.1%	5.7%	0.4%	4.6%	8.5%	16.1%	38.5%	8.2%	4.5%
2014-Q3	58.6%	5.4%	0.1%	7.5%	9.5%	14.8%	36.8%	8.3%	5.3%
2011-Q3	49.4%	6.6%	0.2%	9.0%	11.5%	11.5%	35.3%	9.9%	5.6%
2008-Q3	50.2%	6.6%	0.2%	8.3%	9.5%	14.1%	34.3%	10.2%	5.1%
2005-Q3	55.2%	6.7%	0.4%	6.3%	10.2%	17.5%	35.1%	9.7%	5.1%
2002-Q3	45.7%	7.9%	0.6%	7.5%	12.0%	14.9%	31.7%	10.7%	5.9%
1999-Q3	60.1%	5.7%	0.4%	4.6%	8.5%	21.8%	31.4%	10.1%	5.5%

Sources: ECB and board of governors of the Federal Reserve (FED)

This conclusion, however, should be qualified since Table 2 indicates that the gap between the two areas, in terms of equity financing of non-financial firms, would be resized if there was a more rigorous comparison, at first glance, than the one just proposed. In fact, euro-area data distinguish between listed and unlisted equities, while U.S. data merge all equities issued by non-financial firms without distinguishing between the two types. A simple calculation proves that, including even unlisted equities, the rate of the whole set of equities on total financing for euro-area firms would continue to show (with one exception) negative differences with respect to the similar rate for U.S. firms[4]. However, the gaps would not range between 36 and 44 percentage points but would rarely exceed 5.5 percentage points and, often (2005, 2008 and 2011), less than or equal to 2.6 percentage points.

Although at first sight more rigorous, the latter comparison hides substantial problems. Much more often than in the United States, in the euro area financing through unlisted equities, i.e. equities not issued on regulated stock markets, implies that the non-financial firm is raising new capital through relationships which do not pertain to market transactions. The typical case is that of firms under family-control, where the new shares tend to be fully underwritten by the small core of existing owners - often with close parental ties - without any exchange in unregulated markets. Therefore, notwithstanding the precautions to be taken in the case of a comparison between heterogeneous data,[5] it is appropriate to go back to the previous interpretation of Table 2. Together with the evidence provided in Table 1, this allows us to offer a rough estimate of the shares of all market financing – i.e. the sum of bond debts and new capital arising from equities issued on stock markets –

[4] Let us underline that, according to this different comparison, in 2002 the gap under consideration would be positive for European firms by almost 1 percentage point.

[5] In the calculations carried out in this and in the following section it has been arbitrarily but cautiously assumed that, in the United States, equities not issued on regulated or unregulated markets are around 20% of the total capital.

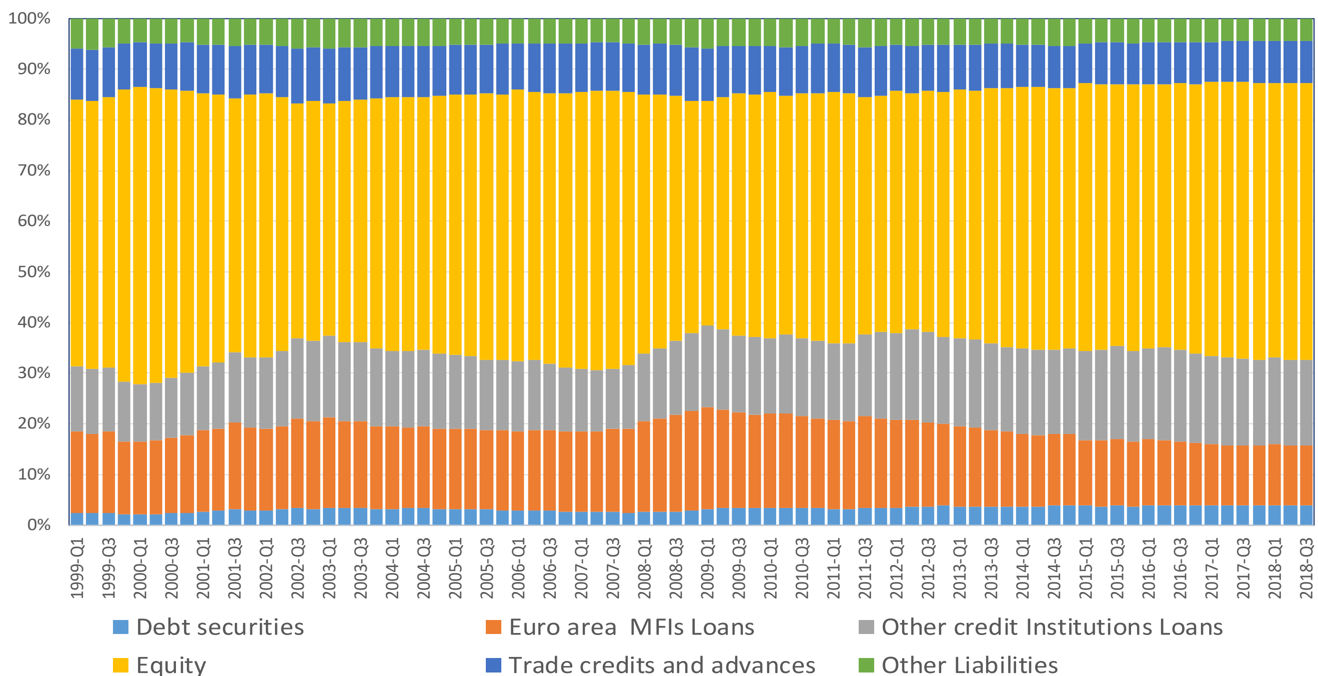
in the total external financing in the two areas examined. Over the last twenty years, the average weight of market financing on the total financing of EMU non-financial firms has almost always been around 30 percentage points lower than the corresponding average weight on the total financing of US non-financial firms; over the last five years, this gap has reached more than 40 percentage points.

The above empirical descriptive evidence can therefore be summarized in three aspects:
(i) the incidence of the segment of bonds issued by non-financial firms (corporate bonds) is almost five times greater in the United States than in the euro area;
(ii) the relative impact of stock markets is more than four times greater in the United States than in the EMU;
(iii) the rate of bank financing is more than four times greater in the EMU than in the United States.

3. The unviability of the current European financial set-up

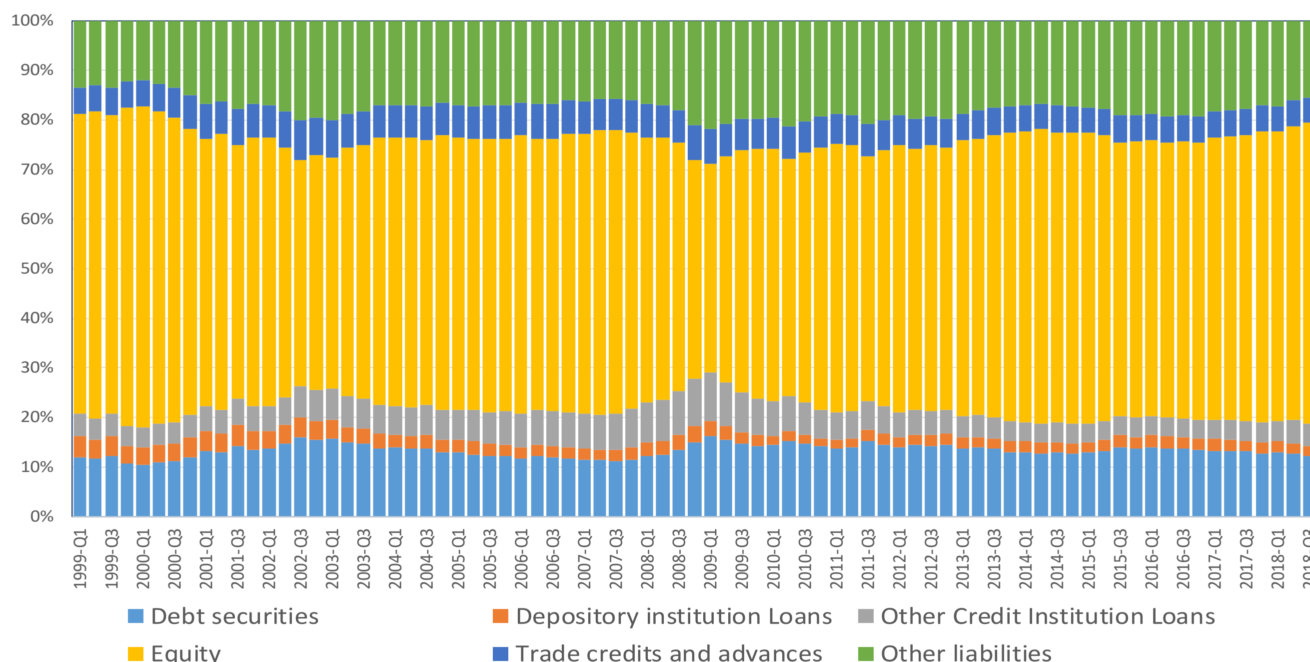
In addition to providing a snapshot by means of points (i) – (iii), Tables 1 and 2 suggest that in the six years that have elapsed from the long European recession (from the end of 2011 to mid-2013) the euro area has started to reduce – but at a very small pace – its heterogeneity with respect to the United States in the financial structure of non-financial firms. Figures 1 and 2 illustrate the same point more clearly, by explicitly emphasizing the dynamics of the on time (static) data of the two previous tables. These dynamics show that non-financial firms in the euro area have minimally reduced their gaps with respect to firms in the United States concerning the utilization of market financing (corporate bonds and equities issued on the markets); they also show that there has been a more substantial, but still insufficient, reduction in the gap relating to the use of bank credit, partly due to the recent increase in the incidence of bank loans in the United States.

Figure 1. Euro-area: liabilities of non-financial firms



Source: ECB

Figure 2. United States: liabilities of non-financial firms



Source: Fed board of Governors.

These dynamics raise the obvious question: Are there compelling reasons why euro-area non-financial firms should look with concern at the persistence of their gaps in the incidence of market financing compared to their US competitors? This Section intends to provide an affirmative answer to the question by referring to two arguments. The first is that, in the post-crisis period, the specialization model of the European banking sector, based on a quasi-monopoly in the financing of the productive sector and in the management of the household financial wealth, is no longer sustainable. The second argument is that EMU non-financial firms need to catch up to their competitors in other economically advanced areas in the digital innovation and artificial intelligence fields; and to achieve these objectives, EMU firms have to mitigate their dependence on bank credit as a necessary condition to increase their average size and to strengthen their organization.[6]

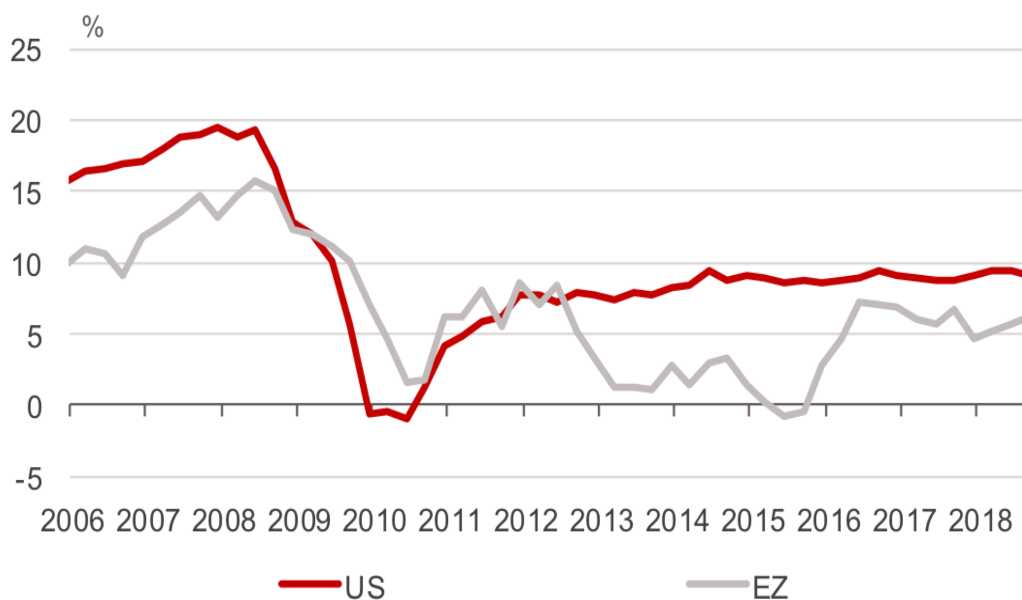
The first argument calls for a new comparison between the banking sectors of the euro area and the United States. As shown in Figure 3, the average profitability of the banking sector in the EMU was for several years (from 2013 to 2016) between less than one-tenth and one-third of that achieved by the banking sector in the United States, which has fluctuated around the 10% threshold between 2014 and today. In the last three years alone, the average profitability of European banks has exceeded the 6% threshold.

[6] There is a third argument which does not directly concern our analysis and which is therefore overlooked here. One of the biggest problems of the EMU is that many 'core' member states reject centralized forms of risk sharing with the most fragile countries. A decentralized instrument for the absorption and dissemination of risks, resulting from cyclical or idiosyncratic shocks, could be represented by strong and well-organized financial markets (see, in this respect: Lannoo and Thomadakis 2019).

There are numerous factors explaining this further divergence between the EMU and the United States in the working of the banking sectors. One of the most important depends on the policy initiatives undertaken in early 2009. The newly established Obama administration decided on a radical 'cleaning' of troubled financial securities held in the asset side of US bank balance sheets through three initiatives: the implementation of severe stress tests; the consequent obligation to proceed to recapitalizations, also with government support, if needed; and the introduction of incentives for the sale of these securities to public-private financial vehicles. Instead, in the same months, many national governments of the euro area and the EU allocated large public resources to recapitalize and guarantee the national banking sectors without achieving a similar 'cleaning' of their balance sheets. Between 2011 and 2014 the consequent and persistent vulnerabilities of banks' balance sheets in the EMU, especially those banks located in a few 'core' countries (e.g. Germany, Netherlands, France), combined with a dramatic increase in non-performing loans (NPL) induced by the European recession and the associated increase in defaulting borrowers, especially in the EMU 'peripheral' countries (Greece, Ireland, Portugal, Italy, Spain), as well as with banks holding an increasing amount of national government bonds, especially in countries with high public debt. This strengthened the 'doom loop' between banking crises and sovereign crises.

This composition of European banking assets in frozen bank's balance sheets polarized their exposure to risks. Most of the banks in the EMU sacrificed their profitability in the short term, implementing a delayed deleveraging of their troubled positions (NPE) and of other risky items in the asset-side of their balance sheets. Other EMU banks tried to safeguard their profitability in the short term, either by reproducing their investments in risky assets (e.g. Deutsche Bank) or by strengthening the concentration of their assets on national government bonds (for example, various Italian banks).

Figure 3. The profitability (ROE) of the banking sector in the US and the EMU



Source: Lorenzo Bini Smaghi (2019).

The impact of such fragility on bank profitability in the EMU may have been exacerbated by two additional factors: the announcement and the implementation of expansionary and unconventional monetary policies that, especially from the end of 2014 onwards, have pushed the structure of interest rates down and reduced the banks' interest margins; and the encumbrances of regulation that have imposed significant and difficult recapitalizations in a phase in which the average profitability of banks in the EMU was lower than the average cost of capital (cf. above, Figure 3) and that are still increasing the costs of bank funding[7]. Here, however, a further factor must be called into question: the recurrent crises and the failure to complete the BU have accentuated the national fragmentation of the euro-area financial markets, thus hampering both the rationalization of bank ownership and bank governance, as well as the reorganizations and consolidations of the banking groups. [8]

The result is that the EMU banking sector has difficulty in: (a) safeguarding its positions in payment systems from the strong competition raised by non-regulated technological enterprises; (b) selecting worthy borrowers, without chasing after those who do not need bank financing and rationing the remaining firms; (c) dealing with the unavoidable fall of profitability in the mass markets of 'asset management', due to the application of new rules (mainly, the so-called MIFID2); (d) reducing the many inefficiencies in business by means of internal reorganizations and mergers, including cross-border ones; (e) adapting its business model to new market opportunities, combining the traditional financing of productive activities with the provision of more sophisticated financial services.

The inability to carry out points (a)-(e) implies that most of the small and average-sized EMU banks are still trapped in the traditional activities of funding, which, however, are constrained by the need not to accumulate new excessive NPLs; the medium-large and large European banking groups offer a more complex spectrum of activities that is based on business models (private wealth management and insurance services) destined to become less profitable if not for a few very large players, or for a few specialized banks; the small number of European banks of large international size focuses on investment activities that, as demonstrated – once again – by the U.S. case[9], are no longer *per se* compatible with bank models of adequate profitability.

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[7] Various scholars argue that low or negative policy interest rates depress bank profitability directly (cf. for example Dell'ariccia et al. 2017; Kerbl and Sigmund 2017: Borio et al. 2017) or indirectly (cf. for example Altavilla et al. 2017; Eisenschmidt and Smets 2019). Other authors, however, concentrate on the possible negative impact of regulation (cf. for example Kashyap et al. 2010; Berger and Bouwman 2013; IMF 2015). In this regard, it should be recalled that the full implementation of the resolution procedures drawn up under the second pillar of the Banking Union (BU) requires a costly rearrangement of bank liabilities, which makes it possible to resort to bail-in; and today, with the urging of centralized supervision, the major European banks are moving in this direction.

[8] The BU process, launched in June 2012, has not yet completed the second pillar (cf. the previous note) and, above all, it has not progressed in the construction of a single European Deposit Guarantee Scheme (the envisaged third pillar). The point presented here (cf. also Bruni *et al.* 2017) is that this incompleteness has had effects contrary to the objective pursued: instead of accelerating the construction of a single European banking market, its national fragmentation has increased, thus blocking the consolidation between banks of different member states.

[9] One of the effects of the international financial crisis was that, in the United States, investment banks that escaped the Lehman bankruptcy (2008) were obliged by law to extend their functions also to commercial activities through internal reorganizations or mergers. Paradoxically, these changes also strengthened the investment functions of the former US

The above considerations support the view that the European banking sector no longer has the advantage of reproducing its previous models of specialization (cf. EBA 2015; Demiralp 2017; Calvo *et al.* 2018; Detragiache *et al.* 2018; de Haan e Kakes 2018). However, they also highlight another problem: in the euro area the current financial market structures do not even benefit the related 'real' economy. Even the most innovative firms in the EMU suffer from competitive lags compared to Chinese and U.S. companies in leading sectors such as digital technology and artificial intelligence and – more generally – in many network services. There are many reasons for these delays: the failure to complete the single market, the lack of a new policy for industry and services at a European level, excessive administrative burdens, and so on. Two other reasons, however, at least equally important, concern the financial markets: the amount and composition of potential European financing are not adequate in relation to the scale set by the other two main economic areas (China and the United States); as we will see below, most EMU firms are limited to being of a small and small-medium size.

4. The main obstacles to financial reorganization in the EMU

New innovative trajectories require technical and organizational changes which must be based on large public investments and an expensive set of financial support and services for potential innovators. To have any chance of success, innovators must be able to adapt their enterprises to different but critical dimensional thresholds. Therefore, if the EMU wants to catch up and remain a competitive economic area with a high growth potential, it is necessary that: financing of innovative trajectories is not quantitatively and/or qualitatively limited to self-financing and bank credit; successful companies and/or those with great potential are ready to increase their size, when needed, by means of internal or external reorganizations. In both cases, a necessary condition is that a broad spectrum of innovative financial support and services is offered, in a cooperative way, by the public and the private sector (cf. Kremer and Popov 2018). In their present set-up, differently from the U.S., the EMU financial markets do not have a composition that can meet the private demand for the most sophisticated financial services. The latter require an effective improvement of market segments and non-bank intermediaries, as well as new bank business models.

What has just been said does not mean that the innovative pursuit of European productive activities is blocked by quantitative inadequacies in the stock of financial wealth or by lack of liquidity. On the contrary, today the euro area has an excess of net aggregate savings (over investments) that results, besides in large positive balances of the current account, in an excess of public and private liquidity. Moreover, the euro area has an aggregate amount of financial wealth that, if measured relative to GDP, is not much lower than that of the United States (cf. Table 3).

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investment banks, which, as demonstrated by the serious difficulties now experienced by one of the few European investment banks (Deutsche Bank), in subsequent years became dominant in the international competition.

Table 3: Financial wealth to GDP ratio

Financial assets held by household (Q3-2018)		
	Financial assets ($, per capita)	Financial assets (% GDP)
France	91940,9	208,1%
Germany	84449,8	160,6%
Italy	78278,3	191,4%
Spain	51784,9	132,5%
Euro Area	79387,9	175,7%
United States	123986,5	207,4%

Sources: ECB, and Fed board of Governors.

With regard to liquidity held in private hands, it should be noted that, over the last decade, in several 'central' EMU countries, the non-financial firms as a whole have achieved net positive financial balances, i.e. they have experienced excess liquidity and credits over debts. The phenomenon is attributable to various causes: some of the large companies, which traditionally operated in areas that are not financial, powered their profitability by investing in financial assets; other firms of various sizes have been streamlining their organizational processes to reduce the liquidity needs for their current operations; and still others have reduced their dividend policy and thus, expanded their self-financing margins. Perhaps the fundamental cause is that, during the crises, there was a reduction in the scale of productive activities and, above all, of 'real' investments, which, despite the lowering in the structure of interest rates, has not been fully reabsorbed in recent years of economic recovery. The result was that a number of large non-financial firms accumulated cash buffers, waiting to take advantage of investment opportunities with appropriate expected rates of profitability; and the more efficient small to medium-sized firms acted in a similar way, also due to the fact that the low interest rates made attractive only the financial investments that were too risky for them. These subsets of firms have certainly not suffered from a lack of bank credit. On the other hand, however, another part of the firms and, in particular, the small and medium–sized firms that were less efficient or that were ready for a significant upgrading in their size, have been unable to cover their financing needs for the reorganization or restructuring of the production processes.

The failure to meet the demand for financing of the latter subset of firms is due to two phenomena. First, as already mentioned in the previous Section, after the crisis the EMU banking sector initiated a delayed 'cleansing' of its balance sheets, significantly reducing the provision of credit with respect to the pre-crisis period. In particular, European banks concentrated their loan supply towards firms that were less risky but that had a modest demand for credit because their financial balances were positive; on the other hand, these

same banks limited the credit for firms with high financial needs. Secondly, as we have already seen (cf. above, Section 2), in the EMU this reallocation in bank loans was not offset either by significant increases in the impact of the equity markets or by a strong expansion of the corporate bond market. In this respect, it is sufficient to note that – at the beginning of 2018 – the capitalization of companies in relation to GDP did not reach 37% in Italy, it slightly exceeded 60% in Germany and was less than 68% in Spain; only in France, the ratio of this capitalization to GDP was greater than 100% (106.5%) (see World Bank data). During 2018, the situation did not significantly improve since the negative trends in almost all the financial asset classes hindered new public offerings or other forms of recapitalization.

As a result, although several EMU countries are experiencing an excess of financial assets for their non-financial firms as a whole, the fall in bank lending has hampered the reorganization of a large portion of small and medium-sized firms in the industry and services sectors. Some further empirical evidence reinforces this conclusion (cf. ECB 2018; Maurin et al. 2018). Although the average net profit rates for the small and medium-sized European firms have increased during the last decade (from values close to zero in 2009 to 5% in 2017), at least one third of these firms maintain they have faced binding constraints in access to financing, and more than a quarter maintain they have suffered a rationing (quantity or price) in access to bank credit. Moreover, there is a gap of at least ten percentage points between the large and small to medium-sized European firms which claim to have received less than 75% of their demand for bank financing.

Apparently, the large net private financial wealth available in the euro area should enable these problems to be overcome quickly. The availability of private financial wealth is in fact the prerequisite to build, even if with delay, strong and liquid non-banking segments of the EMU financial markets. In turn, the strengthening of the corporate bonds and equity markets makes available those funds that, unlike bank credit, have wide margins of quantitative expansion and provide that support and those services that must accompany the size upgrading and the technical and organizational innovations of successful firms.

There are at least two obstacles to this evolution in the EMU financial markets.

The first obstacle is due to the same dimensional structure of the European productive apparatus. The size of non-financial firms greatly varies in the member states of the euro area; for example, this average size is much larger in France than in Italy or Spain. However, as already mentioned and shown in Table 4, when compared with the U.S., the size structure of the aggregate of non-financial firms in the EMU is that of small and small-to-medium size. On the other hand, bond and equity issues are characterized by strong economies of scale due to high regulatory and organizational fixed costs. Therefore, it is difficult that smaller firms will find direct access to market financing advantageous. The second obstacle, which reinforces the previous one, lies in the fact that the optimal portfolio composition of European wealth holders ill suits the potential sources of market financing of the productive sector. Non-financial EMU firms with positive financial balances have the advantage of providing credit to consumers, of supporting final demand or of making short-term investments to improve their profitability. EMU households tend to allocate a large part of their financial wealth to assets

that are less risky than buying corporate bonds or shares, especially if issued by not so large companies in market segments with poor liquidity.

Table 4. Distribution of firms by size (USA and EMU)

		Total	Number of person employed				
			1-9	10-19	20-49	50-249	250+
Euro Area (2016)	Industry (except construction)	1.535.217	81,8%	8,9%	5,3%	3,3%	0,7%
	Construction	2.473.842	94,1%	3,9%	1,5%	0,4%	0,0%
	Services	4.548.821	93,6%	3,8%	1,8%	0,7%	0,1%
United States (2015)	Industry (except construction)	385.359	67,4%	13,5%	10,8%	6,6%	1,6%
	Construction	624.091	83,5%	8,8%	5,3%	2,1%	0,2%
	Services	1.044.380	80,1%	10,7%	5,9%	2,8%	0,5%

Source: OECD.

The second obstacle reinforces the first. We can thus conclude that the distribution of liquidity and the allocation of financial wealth, which is typical of the euro area, are neither perfect and immediate substitutes of traditional bank financing, especially for a crucial part of the firms in industry and services, nor efficient activators of those new financial instruments that are required to re-ignite sustainable growth in the EMU.

This conclusion is nothing new. It is well known that small and medium-sized firms tend to favor bank credit as an external source of financing. And it is also well known that financial wealth holders tend to prefer assets with a higher degree of liquidity and a lower degree of risk than assets that meet the composition of the demand for financing major non-financial firms; and that the gap is even more marked for small non-financial firms that encounter difficulties in accessing market financing. These aspects have long offered a theoretical justification for the existence of banks and other financial intermediaries in traditional models of general economic equilibrium or in those of partial equilibrium with information asymmetries. The sets of non-financial firms, on the one hand, and of holders of financial wealth, on the other, are not able to meet directly on the market precisely because of the incompatibility between the time structure and the risk profile of the financial assets requested and offered, or because of information imperfections. Therefore, an intermediation is necessary, one that is able to transform durations and to absorb the risk gaps by taking over their management (cf. for example: Brainard and Tobin 1963; Tobin 1969; Diamond 1984).

5. The necessary evolution

The European models, centered on banks as dominant financial intermediaries, have for a long time been an empirical confirmation of this theoretical result. For the reasons already discussed, however, these models

underwent profound transformations already at the end of the last century and are not reproducible in the post-crisis period. We should therefore ask whether a new division of labor between banks and non-bank intermediaries, aimed at reducing the gaps between the structures of financial markets in Europe and the U.S., will be able: to carry out, in new forms through the EMU financial markets, the functions of traditional banking, bridging the qualitative gaps between the allocation of financial wealth preferred by private holders and the demand for financing coming from small and small-to-medium sized non-financial firms; and to provide new financial instruments to support the size upgrading and the related innovations of European firms.

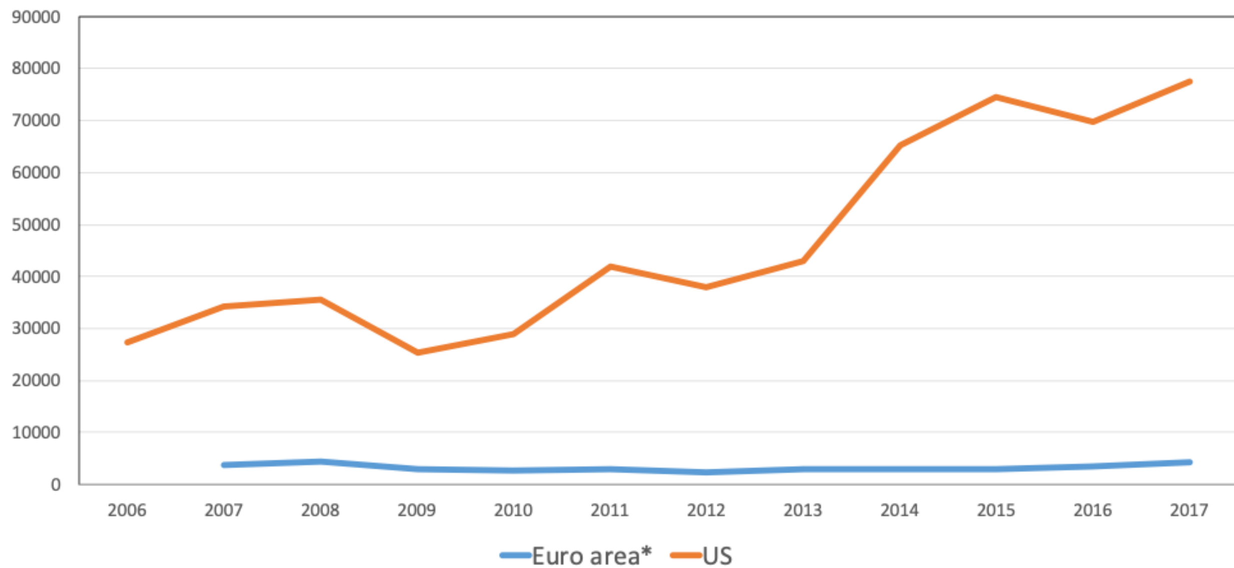
During the crises and the years immediately following, European institutions already tried to build a legal-regulatory framework that would facilitate the change of bank business models and the strengthening of non-bank intermediaries, thus leading to a positive response to the two questions just raised (cf. for example: Draghi 2019). It was also recalled that the BU process, launched in mid-2012 and aimed at completing the integration of the banking sectors of the individual EMU member states, remained incomplete and ended up leading to a renationalization of the relative market segments. Even the unification process of EMU financial markets (the so-called Capital Markets Union: CMU) has not produced the expected results so far. Launched at the end of 2014, the CMU was designed to develop European non-banking segments and to encourage the creation or the strengthening of its non-banking intermediaries.[10] The CMU resulted in a substantial set of legal and regulatory initiatives that, however, have not been able to deeply affect the functioning of European financial markets, except in some already more advanced countries (for example, France)[11]. In this respect, it is sufficient to recall the data on the modest growth of the European stock and bond markets mentioned above (cf. Sections 2 and 4); and add that, compared with the United States, in the euro area even the development of an instrument such as venture capital to support innovative investments has been very modest (cf. Figure 4). These delays and distortions in the impact of the BU and the CMU do not allow us to put off the solution for the financial problem of the EMU pointed out at the beginning of this Section: the banking sector will necessarily have to abdicate from its current oligopolistic positions to leave space for non-banking financial intermediaries or financial functions performed by non-financial firms (cf. also: von der Leyen 2019); and this

[10] As several authors note (cf. for example: Lannoo and Thomadakis 2019, p. 6; and ECB 2015), the initial project and the 2015 Action Plan focused on multiple areas of intervention. Here we recall four of them: (a) broadening the spectrum of financing accessible to non-financial European firms, including small and small-to-medium-sized ones; (b) facilitating the access and use of non-bank segments of the market; (c) strengthening, to this end, the involvement of institutional and professional investors and– through them – of retail investors; (d) expanding banking functions and the financing of innovative activities.

[11] As stated by Lannoo and Thomadakis (2019), to implement the planned measures (cf. the previous note), the European Commission set twenty targets and committed to translate them into thirty-three actions by 2019. Most of these legal-regulatory actions have actually been drawn up and some of them have been approved. For example, the "European passport" was launched, procedures for issuing financial assets in regulated markets were simplified, markets for different types of companies were constructed, a market for simple and transparent securitizations was relaunched, sources of financing innovations were encouraged, transnational investment and those that are sustainable in the long term were facilitated. The effects produced were not, however, equal to the regulatory efforts made.

evolution will be successful and will contribute to the sustainable development of the euro area only if it is able to channel, with new methods, a significant portion of the financial wealth allocated in portfolios with a traditional and stable composition towards potential borrowers in the productive sector.

Figure 4. Venture capital investments (billions of dollars)



* Malta and Cyprus are excluded
Source: OECD

In this respect, it has already been noted that some EMU countries are in stronger positions than those in the rest of the area. In France, Ireland and Luxembourg, the existing national financial markets have a richer pool of non-bank intermediaries, which means that non-financial firms in these countries are less dependent on bank credit than in Germany or Italy. On the other hand, in these countries, as well as in the Netherlands (as in other non-euro-area northern European countries), there are different types of institutional investors who manage a substantial amount of assets and already play an important intermediation role in the relative financial markets (cf. Darvas and Schoenmaker 2017). The fact remains that, for the EMU as a whole, at the end of 2018 pension funds held a modest amount of financial wealth in relation to total GDP; and this amount was used for even smaller shares in financing non-financial firms. In addition, although life insurance companies and investment funds in the EMU held overall higher financial assets than pension funds, at the end of 2018 these investors again allocated overly low fractions of their portfolios to direct financing of non-financial firms, especially small and medium-sized and/or high-risk firms.

These limits cannot be overcome by just having recourse to a new centralized regulatory framework such as that offered by the CMU. As shown by the French case, it is also effective to implement public policies incentivizing the institutional investors to allocate part of their portfolios to the market financing of small and medium-sized firms, easing and supporting banks' transition to different business models and to related

changes in their organization, lowering the unit entry costs in the corporate bond and stock markets, and simplifying the governance and legal requirements that firms would have to satisfy to issue bonds and equities in the financial markets. Moreover, due to the current specificities characterizing various EMU countries, it would also be effective to develop national public policies aimed at removing local barriers to non-bank financing. For instance, in the Italian case, these barriers are also due to the prevailing ownership structure of small firms that does not allow for a separation between management and control; hence, public policies could incentivize this separation and the consequent upside in firms' size.

The conclusion is that future European financial setups will have to rely on a wider and more established spectrum of institutional and professional investors who are oriented to using their own financial resources or to reallocating those of their customers to support productive activities. Some of these investors and some of the new bank models will have to provide advisory services to the limited share of European non-financial companies that are in the condition to directly access the stock and/or corporate bond markets; these services will help those companies issue financial assets that meet the preferences of the less risk-averse sub-set of financial wealth holders (professional or retail investors). Other investors and intermediaries will instead have to act as underwriters of the bonds and/or equities issued by the larger number of European firms whose size or organization prevent them from obtaining direct access to regulated financial markets. In turn, these investors can finance their purchases by using their own resources and/or by issuing their own debt instruments, which are less risky and which can be allocated to different institutional investors or retail investors. Still other investors or new bank models may specialize in the financing of specific innovative firms (for example, start-ups).

Given the dimensional composition of the European productive apparatus and the possible low propensity of local firms to ask for non-bank financing, it can be useful to provide some specification on the possible ways of giving small and medium-sized European firms indirect access to the financial markets.[12]

In the case of bond issues, we should refer to "special purpose vehicles" (SPV), each of which is ready: (i) to plan centralized purchasing of corporate bonds issued by several small or small-to-medium-sized firms in amounts that, if taken individually for each of these firms and separately offered in the relative markets, would not exploit the possible economies of scale and would – therefore – not be attractive and efficient; (ii) to assess each of the possible bond purchases by means of information (hard and soft) on the different issuers, which would allow to order them in different and specific risk groups; (iii) to refine these risk groups by also taking into account the riskiness of the specific issues and the expiration time of each of the corporate bonds offered; (iv) as a result of the processes in points (ii) and (iii), to decide the amount and the composition of the actual purchases by selecting the most interesting corporate bonds offered and by dividing them into various tranches of risk, and to decide a placement on the financial markets of their own bonds[13] for an amount that will suffice to cover the decided purchases; (v) to actually carry out the decided purchases and sales. In this

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[12] The remaining part of the Section summarizes the analysis proposed in Messori (2018a) with regard to the Italian case.

[13] That is, the bonds to be issued by the SPV under examination.

way, in accordance with what the CMU suggested (cf. above, n. 11), a simple and transparent securitization market would be activated (cf. Figure 5).

In the case of equity issues, it would be a matter of using those financial intermediaries ('private' or 'public' funds) that are able to perform, with respect to an amount of equities that are issued by several small or small-to-medium-sized firms and that cannot be conveniently offered separately on the relative markets at favorable and efficient terms, functions (i) - (iii) allocated to the SPVs in the case of bond issues. These funds should then make their actual purchases of a part of the offered equities through bilateral private placements. The latter would be based on a preventive assessment of the minimum amount of equities in each of the risk groups that meets the liquidity requirements and the economies of scale. In order to finance the decided purchases, each of the intermediaries could use its available financial resources or place on the markets its own bonds or its own shares of capital (cf. Figure 6). The lenders of these fund issues would be the old and/or the new underwriters of the 'private' or 'public' fund under examination and, in any case, professional or institutional investors.

Figure 5: Bond issues of small or small-medium series

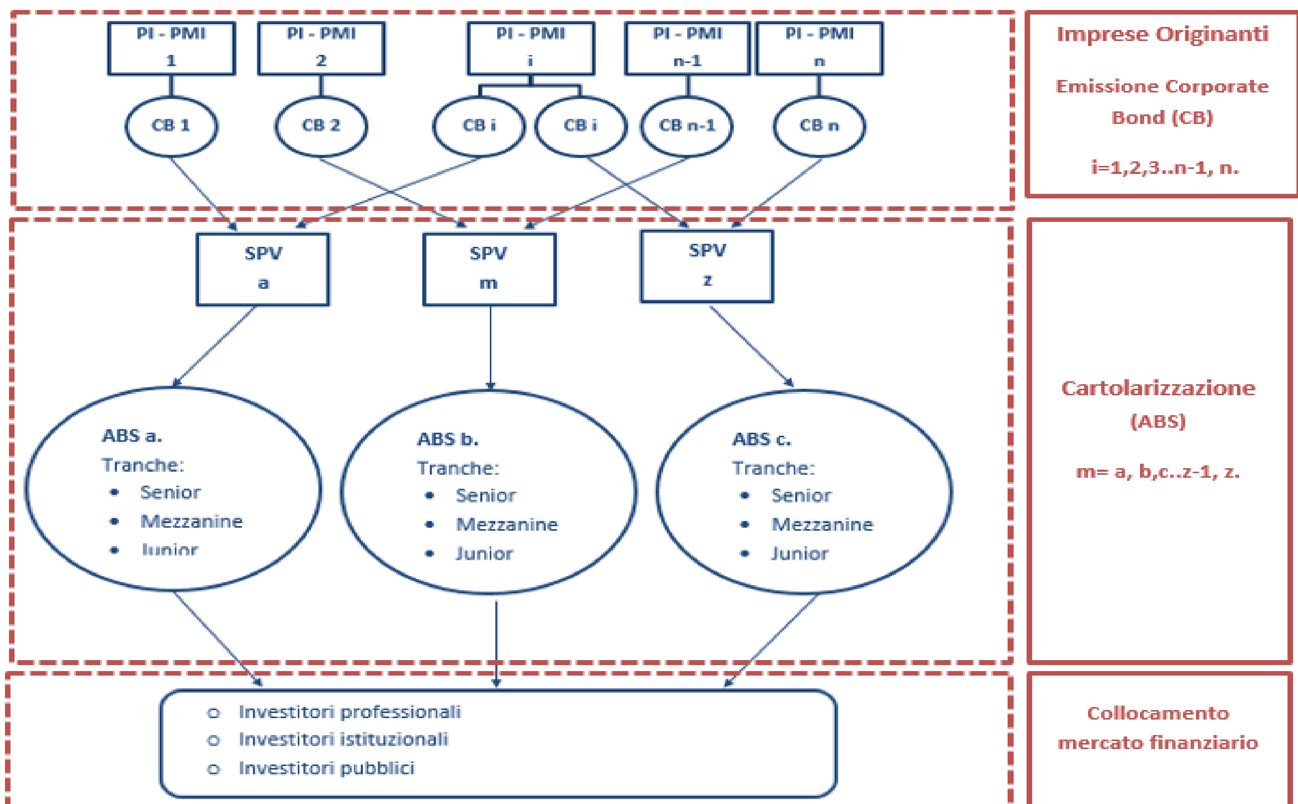
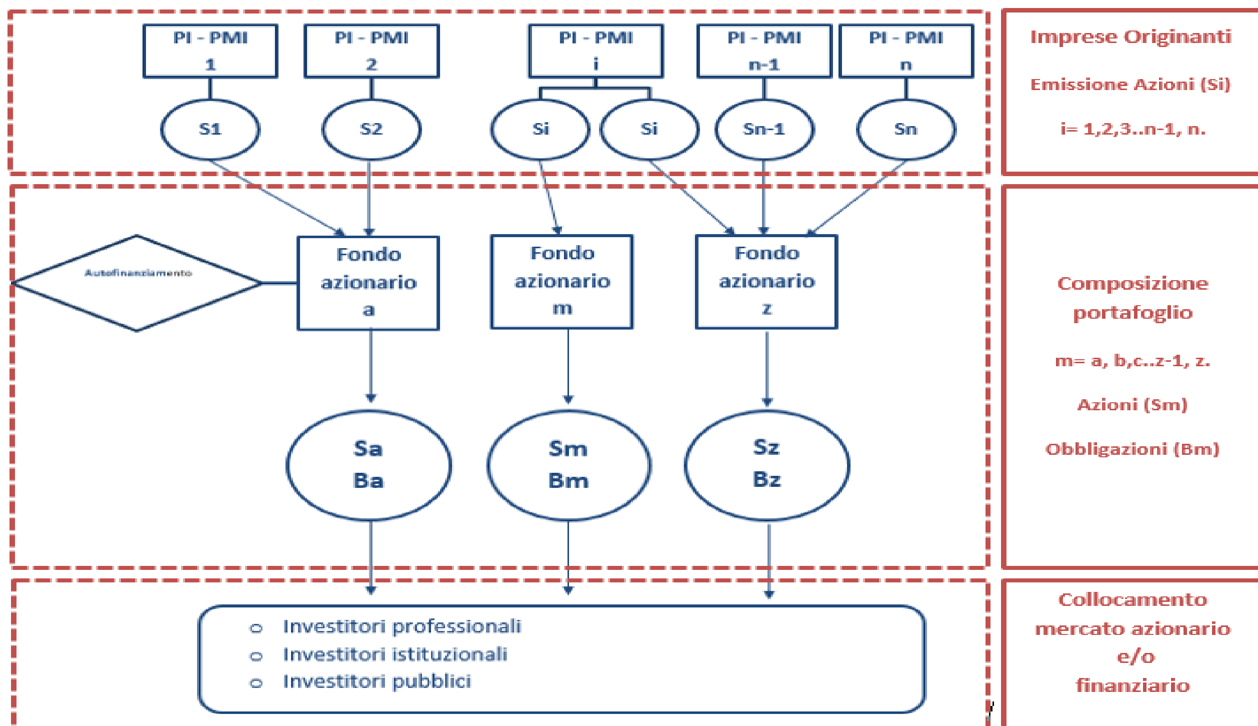


Figure 6: Equity issues of small or small-medium series

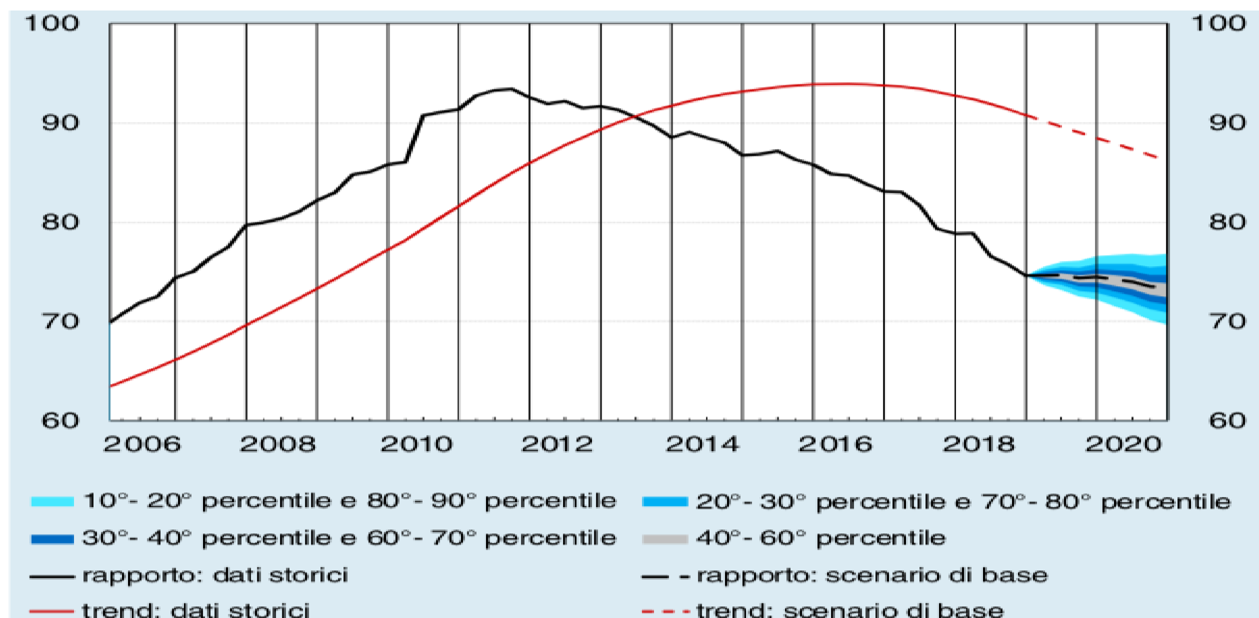


6. The Italian case

The possibility of indirect access to the non-banking segments of the financial markets will represent an important and special opportunity for the Italian productive sector in the near future. Three comments are sufficient in this respect. First of all, it is well known that, in Italy, the incidence of small and medium-sized firms, that is, the type of firms that have the most difficulties in directly accessing financial markets, is even higher than in the already high European average. In addition, and as a result, non-financial firms in Italy are dependent on bank credit as a source of external financing even more than the EMU average. Small and small-medium Italian firms have a bank leverage that, in addition to being above the already excessive national average, is also higher than that of other small-and medium-sized European firms taken as a whole. Finally, especially after the end of the recession (i.e. after 2014), in Italy the dynamics of bank lending to the productive sector have not been positive. Although it is always difficult to assess whether such a dynamic is mainly due to decreases in the demand for credit from potential borrowers or to rationing of price and/or quantity by the banking sector, in the Italian case the fall in the ratio of bank credit to GDP was so significant that – in any case – this traditional form of financing supported neither economic growth nor firms' innovations (cf. Bank of Italy 2019a; and Figure 7).

Figure 7: Bank credit with respect to output and its trend

(Quarterly data; percentage values)



Source: Bank of Italy (2019a).

The third remark can also be extended to other forms of external financing. The fragile financial structure of most Italian firms, especially the small and small-medium sized ones, has made access to stock markets and market debts problematic. The persistently low Italian capitalization even compared to a bancocentric country such as Germany has already been mentioned. Similar valuations can be extended to the corporate bond market. As highlighted by the Bank of Italy (2019a), the result was that – during the crises and in the years immediately following – Italian non-financial firms drastically reduced their external debt (leverage) without replacing it with adequate capital increases; their modest willingness to grow was therefore based on self-financing. This trend is also confirmed by a recent survey of more than 360,000 firms that have a different legal form than the joint stock company and that started their activities between 2003 and 2010 (cf. Bonaccorsi Patti and Nigro 2018). For these young and small firms, the constraints on external financing have been particularly severe. The proof is that one third of their activities has been financed by internal resources and another third by commercial debts (cf. above, n. 2).

It is superfluous to reiterate that, especially for productive activities open to innovation and to size upgrading, self-financing offers insufficient margins. Consequently, in many ways the Italian case represents an extreme form of European financial weaknesses. Moreover, a review of the data in Table 3 indicates that Italy would have the necessary amount of financial resources to overcome its fragility: it has one of the highest financial wealth/GDP ratios in the euro area. The dilemma is that, as highlighted by the Bank of Italy analyses on the composition of the assets and liabilities of firms and households in Italy (for the most recent update, cf. Bank of Italy 2019b), the allocation of these resources runs into – again, in extreme form –a problem characterizing the

European level: the extreme heterogeneity between the portfolios preferred by Italian households and the sources of financing selected by companies.

As can be seen from the right-hand column of Table 5, at the end of 2018, Italian households had among the lowest levels in Europe of debt exposure compared to their assets (just above 75%). Therefore, these households seemed to enjoy the best conditions for a medium-to-long-term utilization of their financial assets. Conversely, they chose to hold 30% (or just under) of their financial wealth in bank deposits; less than a quarter of that wealth was instead allocated in insurance products or in the first or second pillar of social security, and slightly more than 11% in investment funds. Moreover, (even if less accurate) empirical evidence suggests that a very important part of the related available financial assets of insurance companies, retirement funds and investment funds was invested in fixed income (bonds, with a prevailing weight of sovereign debt bonds). If we compare this composition of the net assets of Italian households and of the main Italian institutional and professional investors with the composition of the liabilities of Italian non-financial firms (cf. the left column of Table 5), it will become clear how urgent it is to develop new forms of financial intermediation in order to diversify and strengthen the external sources of financing for the Italian productive sector.

The conclusion justifies the opening statement of this Section: the possibility of indirect access to the non-banking segments of the financial markets, as described above, represents a particularly important opportunity for small and medium-sized Italian firms. The CMU provides a legal and regulatory framework conducive to the exploitation of this possibility. However, it is necessary for Italian and European banks and non-bank intermediaries to be convinced that such an evolution is inevitable and advantageous; and for non-financial firms to be ready to open up to the novelty.

7. Conclusions: the possible role of banks

The last considerations might suggest an oversimplification of the issues impeding the solution to the problems discussed so far. In order to take advantage of the favorable legal and regulatory framework introduced by the CMU process, it is certainly not enough for financial intermediaries and productive firms in Italy and in the euro area to realize that it would be in their interest to open up to the changes in the European financial markets. These changes face, in fact, various institutional obstacles and must overcome intricate networks of national privileges. Hence, in an already very difficult context, resistance to novelty from banks, other financial intermediaries and productive activities would be decisive for preventing small and medium-sized firms in the EMU and Italy from gaining indirect access to the non-banking segments of the financial markets. That is why, at the end of this paper, it is necessary to show that a richer articulation of the European financial markets would benefit all the different types of suppliers and borrowers.[14]

[14] In the following, I resume the conclusions already reached in Messori (2018b).

Table 5. Assets and liabilities of households and firms in Italy (2018)

Firms			Households		
Assets	%	Flows	*Assets*	%	Flows
Deposits and Money	19.5	17.037	Bank deposits	29.1	20.968
Financial Assets: of which Italian	3.2 2.6	-3.864 -2.281	Bonds	6.9	-8.654
			Shares in mutual funds	11.5	1.362
Capital shares and participations	36.9	35.410	Capital shares and participations	21.3	-17,092
Commercial Credit	33.5	11.021	Insurance, pension funds and severance	23.7	26.489
Other assets	7.0	991	Other assets	3.5	5.859
Liabilities			*Liabilities*		
Financial debts	32.4	10.695	Short term debts	5.2	-1.036
Bank Loans	18.0	-38,554	Medium and long-term debts	71.3	18.013
Other Loans	10.4	53.429	Other Liabilities	23.4	2.719
Assets	4.0	-4.180			
Capital shares and participations	47.2	10.650			
Commercial debts	15.0	10.597			
Other Liabilities	5.3	3.632			

Source: Bank of Italy 2019b.

Firstly, as the example of the United States shows, strengthening non-banking segments in European financial markets would still allow some banks to continue to perform their current traditional functions in a more specialized context. Even in the most complex financial markets, there are in fact certain types of households and companies that prefer to resort to traditional banking intermediation in order – respectively – to efficiently allocate their financial wealth and to obtain the financing needed. This applies, in particular, to that part of financial wealth holders that is most risk-averse and to a substantial number of small and small-

medium-sized firms that are difficult to fit into standardized risk classes. The new functioning of a more advanced and more integrated European financial market will therefore continue to attribute important functions to the banking sector, even if it breaks its oligopolistic dominance. Banks and non-bank financial intermediaries will not only have to compete but will also have to perform complementary functions.

Secondly, it is inconceivable that the transition from the old European model centered on banks to the new functioning of financial markets characterized by coexistence and complementarity between different types of financial intermediaries will result in a short-term and linear process of partial substitution among banks and non-bank intermediaries. It is instead reasonable to forecast a bumpy and complex evolution that will take a long time before being completed. During this evolution, banking sectors will be called upon to play crucial roles that will potentially be very profitable for them. In fact, due to their past oligopolistic dominance in the national financial markets, the EMU banks have accumulated strong informational advantages and more deep-rooted expertise in the selection of potential borrowers than other non-bank financial intermediaries (cf. for example: Stiglitz and Weiss 1984). On the other hand, due to their previous marginal roles, the latter intermediaries will not have the immediate availability of the specific 'technologies' required to reduce their gaps with regard to the banks in terms of information and selection capacity. They can, of course, acquire such 'technologies' even without the cooperation of banks; in that case, however, they must make investments that are costly and that will produce actual results only in the medium-to-long term.

Thirdly, even once informational and 'technological' gaps – in one way or another – are bridged, it would be hard for non-bank financial intermediaries to gain market shares by putting themselves in direct conflict with the European banks. The latter have built medium-to long-term relationships with their borrowers over time, often on both sides of the financial markets. Therefore, in order to replace in a non-cooperative way banks in the supply of specific financial services, other intermediaries would have to persuade bank customers to abandon their usual choices in order to give preference to new and unknown economic agents. Moreover, these non-bank intermediaries would expose themselves to the reaction of banks, which, using their pre-existing and consolidated market position, would tend to adopt an aggressive policy of lowering prices in the short term ('predatory' policy) for the sole purpose of preventing or delaying the entry of competitors.

As a rule, transitions from old to new market organizations do not foster cooperative behavior among existing (quasi-)monopoly holders and new entrants, even in cases when cooperation proves ex post advantageous for almost all the actors involved. In those cases, the entry conditions of the new suppliers are met only after costly resistance from the old suppliers. In principle, this should also apply to the transition from the old to the new form of organization of the European financial markets. In this particular case, however, there are specific factors that facilitate cooperation, prompting the old supplier (the banks) to immediately give up a war of position and thus make the transition process faster and more efficient. Some of these factors have been examined in the course of this paper: the new regulation and supply conditions in European financial markets are eroding the profitability of the EMU banks so that the reproduction of the old banking model will no longer be advantageous over time. Furthermore, by deciding to transfer a part of their expertise in the form of services to non-bank financial intermediaries, the EMU banks would provide themselves with a new rich source of

revenue. An acceleration of the transition process, based on cooperative behavior, would therefore improve the position of all the market players (a rare example of the Pareto improvement).

This last statement can be summarized and qualified by the following three steps.

Firstly, the EMU banks have both a short-and medium-long-term expediency in offering services to other financial intermediaries in order to transfer to these non-bank intermediaries a large part of their information and expertise and in order to facilitate the transition to a richer articulation of the European financial markets. In fact, in the short term, the banks will receive a double advantage: they will be able to cash in high revenues from the services offered, which concern information and skills related to activities to be disposed of or otherwise to be closed; they will be helped in selecting activities that will be the basis of their new business models. These new activities will not be related to informational transfers or to the sharing of skills. In the medium-to-long term, the banks will thus be able to eliminate, with profits, a part of their old activities that are no longer profitable and focus on the new and profitable specializations.

Secondly, for the reasons mentioned above, each of the non-bank financial intermediaries has a clear advantage in purchasing a part of the services offered by the banks. In doing so, this intermediary bears costs that are lower than the combination of the two alternative costs: those to be incurred for making the investments required to overcome the information and competence lags accumulated with respect to the banks; those to be incurred for entering into competition with these same banks. Moreover, by purchasing bank services, non-bank intermediaries save the time that would have been necessary to accumulate adequate information and expertise and minimize the risk of going in false directions and suffering predatory pricing policies.

Thirdly, non-financial firms also benefit from a cooperative transition to more structured European financial markets. They can thus benefit from a wider range of financial services that are offered by more specialized intermediaries, and in a shorter time than that required in the case of a conflictual transition.

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