# An Estimation of the Italian Banking Sector Profit Rate in a Crisis Period

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**Abstract:** In this paper an attempt is made to calculate the profit rate of the banking sector, in order to compare it with that of other real productive sectors. Various techniques are used, highlighting the differences and commonalities among the results. The study suggests the use of a new methodology for calculating the banking and financial profit rate, based on central bank data. Furthermore, this study confirms some weakness in bank profitability in recent years, less visible using national accounts data. Furthermore, the evidence suggests the validation of certain insights from Marx's Book III of Capital.

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**Introduction**[*]

This paper tries to calculate the bank profit rate[1] in the period following the 2007-2008 financial crisis in order to verify the possibility of a permanently higher than normal profit rate in the banking sector.

There is a considerable difference between the results calculated using data from the banking sector (Bank of Italy, Mediobanca Research Area, OECD) and those from national accounts (ISTAT). This discrepancy seems explicable due to a particular difficulty on the part of national accounts statistics in describing the financial (and banking) aspect of the economy. While, thus, one source shows a much higher financial profit rate than the productive one (ISTAT), the other sources show the opposite (Bank of Italy, Mediobanca Research Area). The question remains substantially open, although specialist financial data seem more appropriate for the analysis of bank profitability.

This paper studies this problem on Italian data and offers a possible explanation, which confirms some analysis (Banque de France on French data: Fournier and Marionnet 2009) related to an earlier period (the 2007-2008 crisis). Going to the core of the problem, ISTAT data are estimated and more aggregated, while Bank of Italy data are more precise. Most importantly, Bank of Italy data consider impaired loans and non-performing loans, which decrease the amount of profit and thus the profit rate. Provisions due to non-performing loans are the main part of bank losses and without them any calculation of bank profit is not accurate.

The second step in the analysis is directed at comparing bank profit rate and the productive profit rate. The result is that the bank profit rate is surprisingly low, due to a decrease in the interest margin, an increase in capital and an increase in the amount of non-performing loans. It is important to note that the bank profit is calculated only on the basis of equity. Bank bonds are treated as deposits: interests on bank bonds are not treated as bank profit, but as bank expenses, like interests on deposits. So, the bank is an exception, since in other industries debt capital is equal to equity capital for the purpose of calculating the profit rate, and interest on bonds is treated as a part of profit.

An international comparison with other European and world countries also confirms that the

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[1] The profit rate referred to in this paper is the same as in the analysis of the classical economists and Marx (Garegnani, 1984). So, it is related to the primary (or functional) distribution.

historical period under consideration (roughly since the beginning of the new millennium) is a rather 'turbulent' and abnormal period, characterised by banking, financial and economic crises, as well as a pandemic on a global scale (and more recently a dangerous war in Europe). Although the study of the profit rate is a theoretical and very long-standing issue, and hardly reflected in empirical data, these data can be interpreted in the direction of a banking profitability dependent on power relations between classes and subclasses of capitalists (financial and productive), confirming Marx's analysis (Marx 1894).

The first paragraph illustrates the comparison between financial and production profit rates using national accounts data (ISTAT). The second uses bank-specific data (Bank of Italy, Mediobanca Research Area) for this comparison. Finally, the third presents an international comparison of banking profitability (Mediobanca Research Area, OECD). Conclusions follow.

## 1. Estimation using ISTAT data

Figure 1 shows a comparison between the profit rate of the financial sector and the profit rate of the non-financial sector of the Italian economy, estimated from national accounts data provided by ISTAT. Note that the ISTAT entry for finance does not only include banks, but also other financial intermediaries. Since ISTAT also does not present a value that can be immediately and exclusively referred to profits, this value was reconstructed from the available data. Finally, it was decided to not consider the study of circulating capital in this analysis for reasons of simplicity. The methodology used[2] follows that of Duménil and Lévy (2002a, 2004); Levrero and Stirati (2005); Shaikh (2010); Stirati (2010, 2011); Bakir and Campbell (2013); Lapavitsas and Mendieta-Muñoz (2016). Again, some difficulties related to the construction of capital statistics have to be taken into account. The profit rate is in fact calculated ex post, reflecting the degree of utilisation of production capacity; moreover, the actual structure of fixed capital also includes obsolete and 'fossil' machinery, which yield lower 'quasi-rents' than the profit rate (Levrero and Stirati, 2005, p. 411).

Finally, it should be noted that the measurement of value added in the financial sector is done through a particular indirect methodology: the value added of Financial Intermediation Services Indirectly Measured (FISIM), under the European System of Accounts (ESA), is imputed as follows (ISTAT 2021, p. 14):

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[2] For a more in-depth discussion of profit rate estimation see Holland and Myers (1980); Bowles, Gordon and Weisskopf (1989); Duménil, Glick and Lévy (1993); Wolff (2001); Duménil and Lévy (2002b); Bakir and Campbell (2010); Basu and Vasudevan (2012).

The flows of interest received and paid by the various institutional sectors (households, firms, non-profit institutions, public administrations, foreign operators) as a result of their debt or credit relationships with banks and other financial intermediaries, are then broken down into two portions: one representing the cost incurred for the implicit intermediation service and one constituting the effective remuneration of capital (interest). The latter is estimated by applying to the stocks of deposits and loans of the individual sectors a 'pure' reference rate, i.e. without intermediation margin and risk premium, identified in the interbank rate. In general terms, FISIM, for a generic user sector, can be represented as follows:

FISIM on deposits= (stock of deposits* interbank rate) - interest received on deposits

FISIM on loans = interest paid on loans - (stock of loans* interbank rate)

Cost of industry for FISIM = FISIM on deposits + FISIM on loans (my translation).

Going into more detail of the reconstruction of the profit rate, from the value added at factor cost of the whole economy net of depreciation, imputed rentals[3], value added by PS (Public Sector) and the financial sector (in turn net of depreciation), we subtracted the income from employees and the income from self-employment, calculated by multiplying the hourly income per employee by the hours worked by the self-employed (the hours worked by employees and the self-employed were also calculated net of PS and the financial sector). A similar operation was carried out for the value added at factor cost of the financial sector. In order to obtain these results, independent workers were given a wage-like remuneration equal to that of employees; the remuneration attributable to independent workers' labour alone was thus distinguished from profit.

By dividing the profit of the non-financial sector by the relative capital (i.e. the non-financial fixed capital[4] of the entire economy, adjusted for that of the PS and that of the financial sector), the profit rate of the non-financial sector is easily found. Similarly, dividing the profit of the financial sector by the fixed capital of the financial sector, we find the profit rate of the financial sector. Formulae [1] to [8] determine the non-financial sector profit rate, formulae [9] to [11] the financial sector one:

[1] $VA - AM - (FI - AM^c) - (VA^f - AM^f) - (VA^{ps} - AM^{ps}) = VAn^{nf}$

[2] $RLD - RLD^f - RLD^{ps} = RLD^{nf}$

[3] $h_d - h_d^f - h_d^{ps} = h_d^{nf}$

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[3] 'Imputed rental': 'Hypothetical value of the monthly rent that households living in a dwelling owned, usufruct or in free use, or owning a secondary dwelling, could obtain by renting the dwelling', ISTAT statistical glossary https://www.istat.it/it/metodi-e-strumenti/glossario (my translation).

[4] In fact, ISTAT provides 'total fixed capital by type of activity'. Furthermore, it should be noted that circulating capital has not been considered in this analysis, following the reference literature.

[4] $h_{ind} - h_{ind}^{f} - h_{ind}^{ps} = h_{ind}^{nf}$

[5] $(RLD^{nf} / h_d^{nf}) \, h_{ind}^{nf} = RLIND^{nf}$

[6] $VAn^{nf} - RLD^{nf} - RLIND^{nf} = \Pi^{nf}$

[7] $K - K^{f} - K^{ps} = K_{tnf}^{nf}$

[8] $\Pi^{nf} / K_{tnf}^{nf} = \pi^{nf}$


[9] $(RLD^{f} / h_d^{f}) \, h_{ind}^{f} = RLIND^{f}$

[10] $VA^{f} - AM^{f} - RLD^{f} - RLIND^{f} = \Pi^{f}$

[11] $\Pi^{f} / K_{tnf}^{f} = \pi^{f}$

With K = capital, VA = value added, AM = depreciation, FI = imputed rentals, RLD = employee income, RLIND = self-employment income, $\Pi$ = profit, $\pi$ = profit rate, h = hours worked, n = net, $^{f}$ = financial sector, $^{nf}$ = non-financial sector, $^{ps}$ = PS, $^{c}$ = consuming households[5], $_{d}$ = employees, $_{ind}$ = self-employed; symbols without superscripts are for 'total economic activity'.
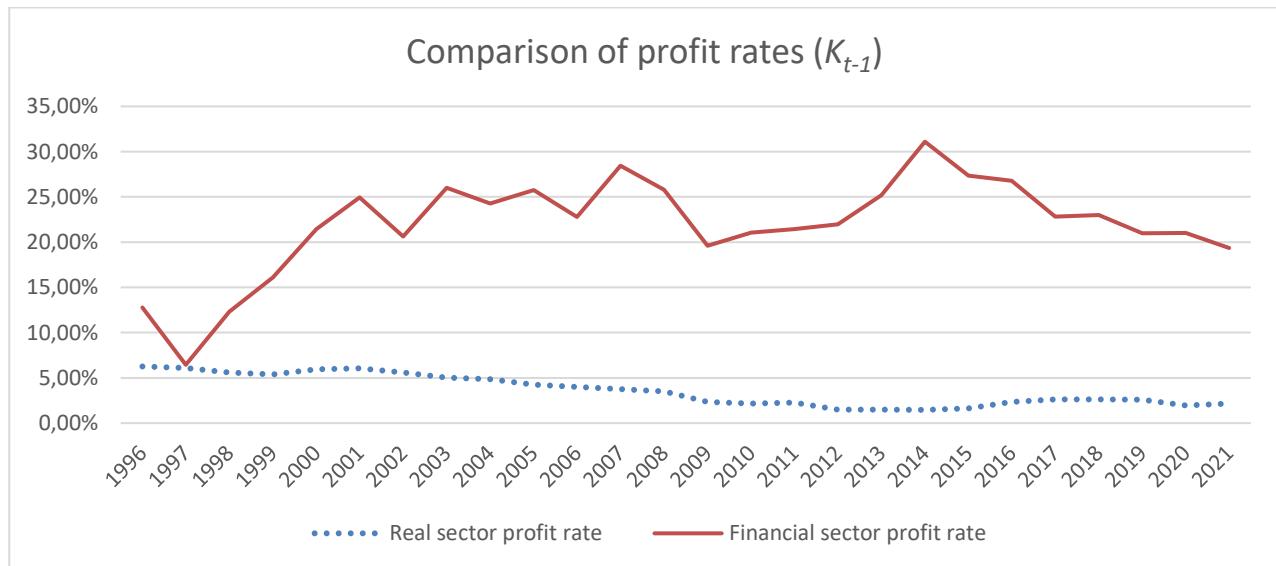
**Figure 1**
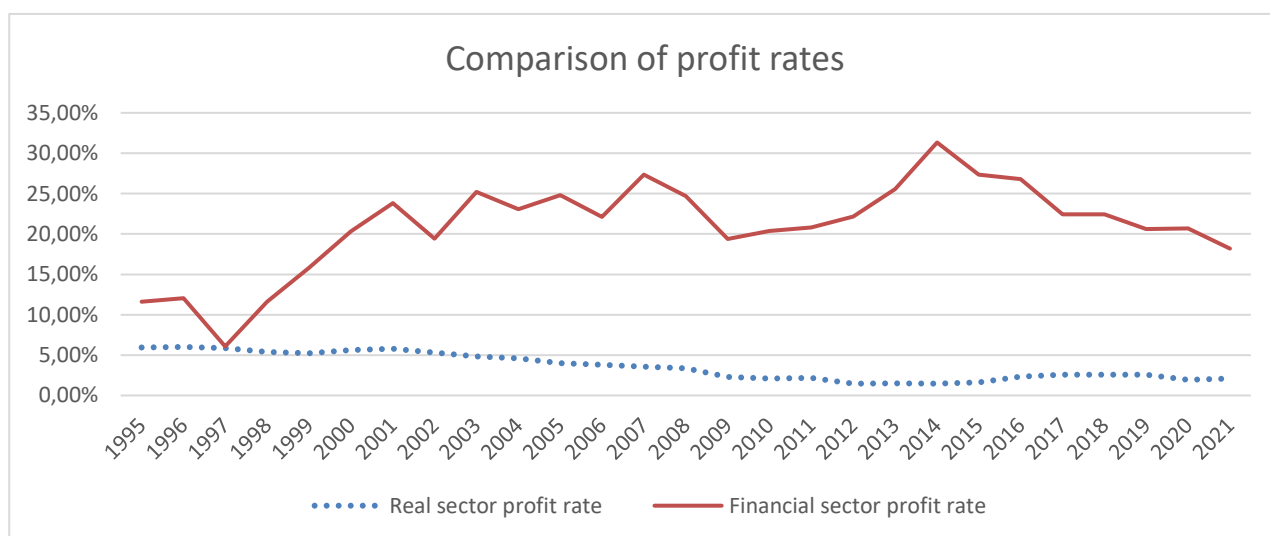


Source: elaboration on ISTAT data.

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[5] Imputed rents were calculated net of depreciation of consumer households. In other words, imputed rentals charged to households has been calculated net of improvements and works carried out on buildings or their loss in value.

A correction of the previous calculation as proposed by Shaikh (2010), p. 58, is then presented in Figure 2:

> The denominator of the profit rate is the capital advanced for the year. Since NIPA lists the capital stock at the end of the year, it is necessary to use the current-cost nonfinancial corporate capital stock of the *previous* year (*K(-1)*).

Since capital at the statistical level is measured at the end of the year, Shaikh argues that it is better to relate the profit figure to the capital figure measured in the previous year in order to have a more correct estimation of the profit rate. This entails, of course, that the time series starts one year later than in the previous case.

**Figure 2**



Source: elaboration on ISTAT data.

Figure 1 (and Figure 2, which is not very different) shows a very considerable difference between the profit rates of the financial and real sectors[6]. This difference increases between 1997 and 2001 and then again between 2009 and 2014, fluctuating in the intermediate period and decreasing after 2014, thus returning roughly to 2009 levels.

These data, however, are subject to several critical issues. First of all, as we have said, they concern the financial sector and not specifically the banking sector.[7] However, it could be assumed that,

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[6] Note that due to the greater fluctuation of one curve, the other appears to be 'smooth' and 'flat'. By inserting two scales, this effect disappears, showing that the issue is merely 'optical'. This caveat also applies to the other figures presented.

[7] Financial data net of insurance activities are available on the ISTAT website, but not every item needed for the calculation [1]-[11] is available.

within the financial sector, the profit rate is roughly the same in every branch of financial activity. Moreover, Italian finance has always been linked to banking, so that it is presumable that the banking sector accounts for a large share of Italian finance. In this regard, it can be observed from the Annual Report of the Bank of Italy (2022, statistical appendix, p. 49) that banks are indeed the largest component among Italian financial intermediaries. The significant weight of banks in the financial sector is somewhat confirmed by European data (ECB 2022, p. 26[8]).

However, the data on the value added of the financial sector presented by ISTAT are calculated by imputation ('FISIM', see Stauffer 2004; Fournier and Marionnet 2009). Finally, another problematic element is that the profit of the self-employed is calculated by estimation, albeit using the most common methodology (Levrero and Stirati 2005; Stirati 2010, 2011)[9].

## 2. Estimation using Bank of Italy and Mediobanca Research Area data

Given the problems and possible inaccuracies of estimates using ISTAT national accounts data, we propose estimates based on specialised financial and banking sources: Bank of Italy and Mediobanca Research Area. A similar methodology is followed by Lapavitsas and Mendieta-Muñoz (2017; 2019a) on US data (Federal Deposit Insurance Corporation (FDIC)).

Figure 3 shows the trend of the aggregate ROE (Return On Equity) of Italian banks as estimated in the various annual reports of the Bank of Italy[10]. ROE is calculated as the ratio of 'gross profits' to the sum of 'capital' (equity) and 'reserves'. In general, for the calculation of the rate of profit, it is necessary to relate profits to the sum of the entire capital invested, regardless of whether it is own or debt capital. However, in the banking sector, bank bonds are part of bank funding, as deposits. It would be very strange to consider deposits as bank capital, and so bank bonds. Moreover, this approach is usually used in the referenced literature (Bank of Italy, Mediobanca Research Area, Lapavitsas and Mendieta-Muñoz 2017, 2019a). The topic cannot be addressed with the attention it deserves here for reasons of space, we therefore refer to Zolea (2022b), who offers a specific analysis and discussion of the topic.
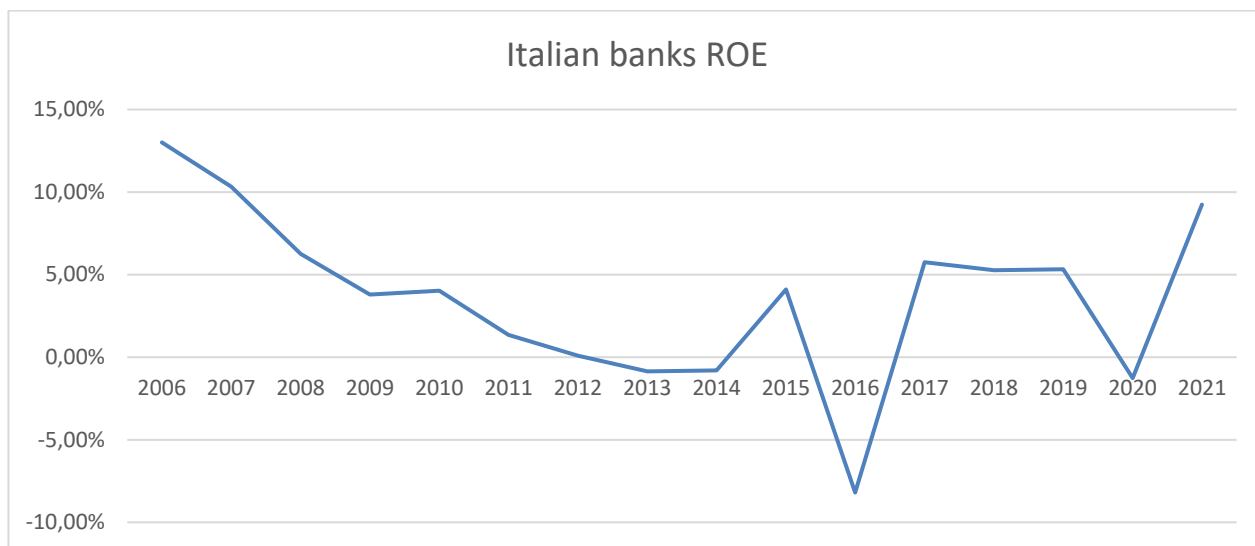
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[8] Note the comment in the text to the graph, ECB (2022), p. 26: 'Changes in the euro area financial structure highlight a softening of bank dominance and the increasing weight of investment funds.'

[9] Other estimation techniques can also be used, which attempt to make use of all the information provided by national accounts (see Declich and Imperia 2005; D'Elia 2009; D'Elia and Gabriele 2018).

[10] Available online at:
https://infostat.bancaditalia.it/inquiry/home?spyglass/taxo:CUBESET=&ITEMSELEZ=&OPEN=/&ep:LC=IT&COMM=BANKITALIA&ENV=LIVE&CTX=DIFF&IDX=1&/view:CUBEIDS= .

**Figure 3**



Source: elaboration on Bank of Italy data - Statistical database.

Figure 3 shows a fall in ROE from the beginning of the historical series (2006) to negative values in 2013 (with the exception of 2015) and a low of over -8% in 2016. There is then an upturn in 2017 and a tendentially stable situation in 2018 and 2019. In 2020, there is a further decline in ROE, which returns to negative territory; the latter movement can be explained by the effects of the Covid-19 pandemic. In 2021, ROE rises sharply, almost returning to 2007 levels, probably due to the special situation in which the credit system was because of to the pandemic-related economic recovery plans.

In general, the downward trend in ROE can be explained by the economic crisis; the particular negative figure for 2016 is justified by the high volume of impaired loans in that year (Bank of Italy 2017, Annual Report, p. 163). The Annual Report on 2016 of the Bank of Italy, (Bank of Italy 2017, pp. 164-165), offers an interesting overview of the profitability of European banks in the period between 2006 and 2016: the causes of the fall in ROE, in a different way for each country, are the reduction in the average return on assets, the high volume of impaired loans and the capital adjustment (increase in capital) to the new international banking standards (basically the Basel III agreements), also adopted as a response to the crisis.

It should be noted, however, that significant differences emerge with what was previously estimated using national accounts data, as also noted by Stauffer (2004); Fournier and Marionnet (2009); Bazot (2017). First of all, it should be noted that only banks and not the entire financial sector are considered in Figure 3. Moreover, the figures above are based on value added, from

which the shares of it allocated to labour are subtracted (Figure 1 and Figure 2). The specific crisis in the banking sector within the larger economic and financial crisis in the years studied may partly explain the different results. Moreover, as will be further explained below, ROE is based on a different balance sheet item, which should give a more accurate picture of the bank profit rate.

Let us then try to move on to a further comparison of bank and productive profitability, using some representative sectors of real production.

Figure 4 shows the comparison between ROI (Return On Investment) in certain industries and banking ROE. ROE is calculated here as the ratio between between the sum of 'gross operating margin' and 'financial income' on the one hand, and 'invested capital' on the other.[11] We follow in this figure the mentioned analysis developed in Zolea (2022b) around bank debt capital, with the consequence of comparing the ROI of manufacturing companies with bank ROE. The ROI figure comes from the cumulative survey of the balance sheets of 2145 Italian companies with the following characteristics, Mediobanca (2022c), p. VII:

> The survey reports the cumulative balance sheet data of 2145 industrial and service companies, predominantly large and medium-sized, for the years 2012 to 2021. Taking into account the availability of accounting documents for the entire decade, almost all Italian companies with more than 500 employees and about one fifth of medium-sized manufacturing companies were included. The data underlying the calculations relate only to activities performed in Italy with the exclusion, in the case of formal groups, of those performed through subsidiaries based abroad. Referring to ISTAT's latest surveys on companies with at least 20 employees, in 2019 the companies analysed here covered 47% of the turnover in industry (49% in the narrow sense), 36% in transport and 41% in retail distribution (food and non-food). In manufacturing, the incidence was 47% on turnover, 57% on exports (2020 figure), 32% on employment and 47% on gross fixed capital formation. Also, according to ISTAT data, the foreign-controlled companies included in this survey represent 51% of those with more than 250 employees overall in Italy, a figure that rises to 84% with reference to manufacturing. (my translation).

The ROE of banks, in turn, derives from Mediobanca's *Focus on the Italian banking system* (Mediobanca, various years [2016-2022]b), which, however, only takes into account the largest banks, i.e. those with total tangible assets over 50 million euro[12] (350 banks for 2021, 360 for 2020,

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[11] The 'invested capital' is calculated by adding 'share capital', 'reserves' and 'm/l-term financial debts'.
[12] From the website of Mediobanca's Research Area: In 2021, the total number of Italian banks with total tangible assets of more than €50m was 350 units, of which 66 retail SpAs, 237 Cooperative Credit Banks, 19 Popular Banks, 10 Investment and Securities Banks and 18 Securities and Asset Management Banks. Considering the consolidated balance sheets, the number is 126.', https://www.areastudimediobanca.com/it/product/focus-sul-sistema-bancario-italiano-dati-

365 for 2019, 378 for 2018, 405 for 2017, 461 for 2016, 492 for 2015). The large size of the banks examined offers a greater possibility of comparison with the data on the largest Italian manufacturing companies, shown in Figure 4; furthermore, the different bank sample should explain the difference with Figure 3, which uses data from the Bank of Italy on all Italian banks. Note that the trend in bank ROE nevertheless follows a similar trajectory in both Figure 3 and Figure 4.

Note also that the numbers of companies and banks taken into account across years do not match exactly. The companies and banks taken into account are, however, all those that meet certain requirements clarified above; furthermore, the annual variations in the number of entities taken into account are not particularly high (also bear in mind the phenomenon of bank unification and concentration[13]).

**Figure 4**
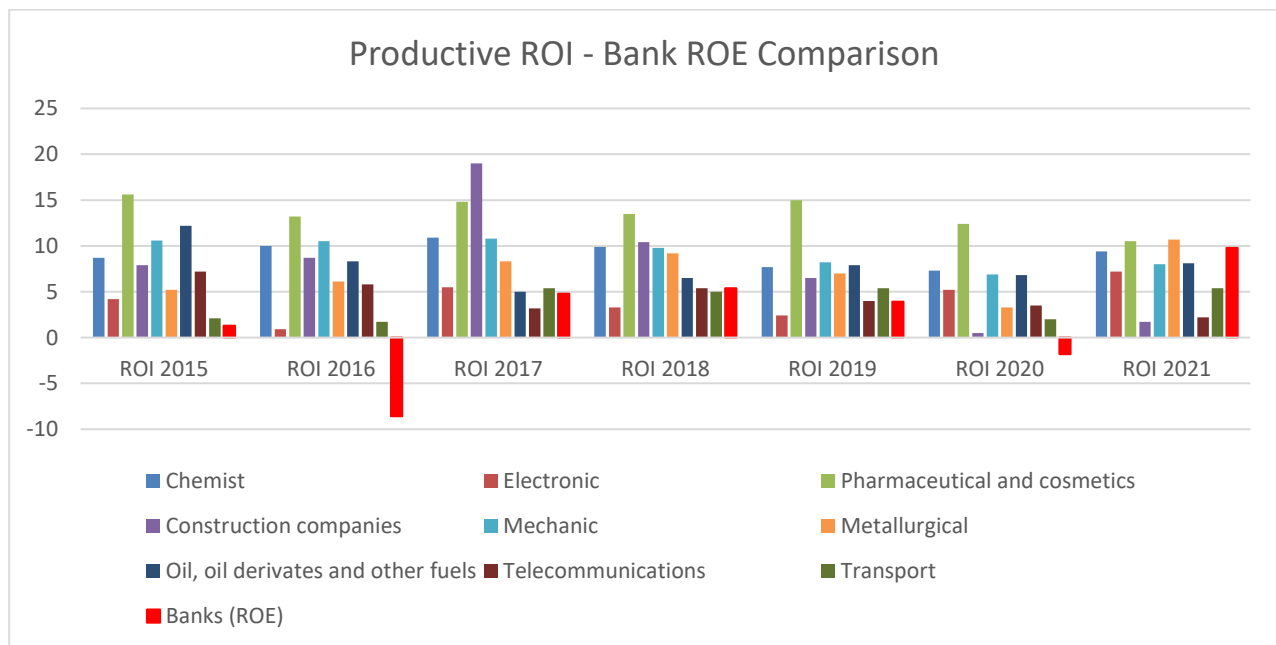


Source: elaboration on Mediobanca data, various years [2016-2022]b, [2017-2022]c. Values in percent.

Generalising the analysis to all sectors of the economy, in Figure 5 we try to calculate the general profit rate of the main companies in the Italian economy (Mediobanca, 2022c) partly following the methodology illustrated in Shaikh (2010): as suggested by Shaikh (2010) in fact, to calculate the total profit rate we have reintegrated among profits the income from debt capital[14] and the

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2021-0?id=27967&download=true .
[13] See Sapienza (1999).
[14] This was not necessary with the ISTAT data since the profits from debt capital were already included in total profits.

calculation is net of depreciation. The capital is thus composed of the sum of the items 'capital', 'reserves', 'm/l term financial debts', while the profit is composed of the items 'net operating result'[15] (i.e. net of depreciation), 'financial income', 'financial charges on bonds', 'other financial charges' and 'other financial and miscellaneous gains and losses'. The profit rate calculated in this way for the economy is compared with that of the banking sector, calculated using data from the Bank of Italy. Figure 5 allows a more general representation than Figure 4, showing a general figure referable to the entire economy; furthermore, Figure 5 allows a longer time series to be illustrated, starting with data from 2012. Following Zolea (2022b) once again, only the own capital (equity) is useful to calculate banking profit rate. So, we have divided the gross profit by 'capital and reserves' to calculate the profit rate for this sector.

**Figure 5**



Comparison of profit margin 2145 Italian companies and Italian banks (banking groups)
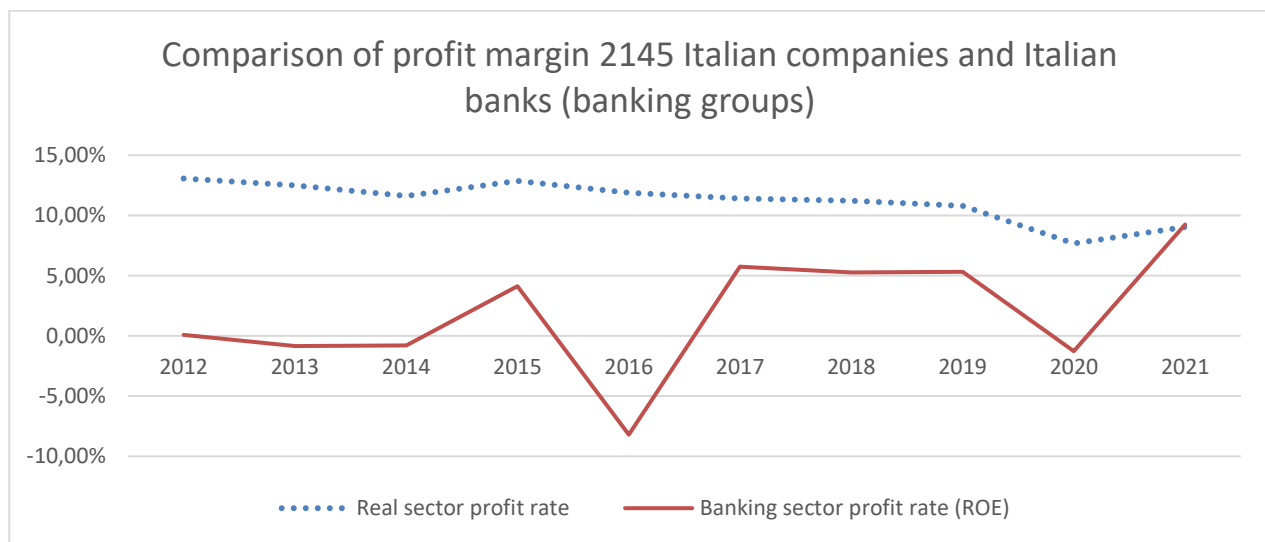
Source: elaboration on data from Mediobanca (2022) and Bank of Italy - Statistical database.

The trend of the bank profit rate estimated by ROE in Figure 5 is the same as that shown in Figure 3. However, a comparison of the profit rates shows that the bank ROE is consistently lower than the profit rate of the real sector; only in 2021 does the bank profit rate reach, and slightly exceed,

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Shaikh (2010) in order to obtain the net entrepreneurial profit of productive capitalists, also proposes to subtract from total profits a share equal to the product of a representative interest rate on debt capital and the entire capital invested. This procedure seems very correct. It should be noted, however, that Park (2021), p. 6, considers ROE as an indicator of the (net) profit rate of a company. This approximation does not seem well-founded: in the Marxian framework the division of investment into equity or debt capital is irrelevant, Marx focusing on the different function of the entire invested capital (Marx, 1894); in the Sraffian framework (Pivetti, 1991) the interest rate represents an opportunity cost to be paid on the entire capital, regardless of whether it is equity or debt.
[15] Usually called EBIT, Earnings Before Interest and Taxes.

the profit rate calculated for the real sector. In fact, during the pandemic period there was a particular need for credit, often guaranteed by the Government[16]. This has led to an expansion of credit[17] (which for the same amount of capital employed results in an increase in the profit rate) and a reduction in credit risk and impaired loans, thanks to Government guarantees. In addition, the ECB carried out a refinancing plan for the banking sector at negative rates (TLTRO-III) which increased bank profitability[18]. Government intervention was thus instrumental in increasing banking profitability, as also confirmed by the Bank of Italy's Annual Report for 2021 (Bank of Italy, 2022, p. 159).

Figure 6 shows the same calculation as Figure 5, but the capital correction of Shaikh (2010) is included, thus reducing the length of the historical series by one year. Again, no particular differences can be seen between the two figures.

**Figure 6**



Comparison of profitability of 2145 Italian companies and Italian banks (banking groups, $K_{t-1}$)
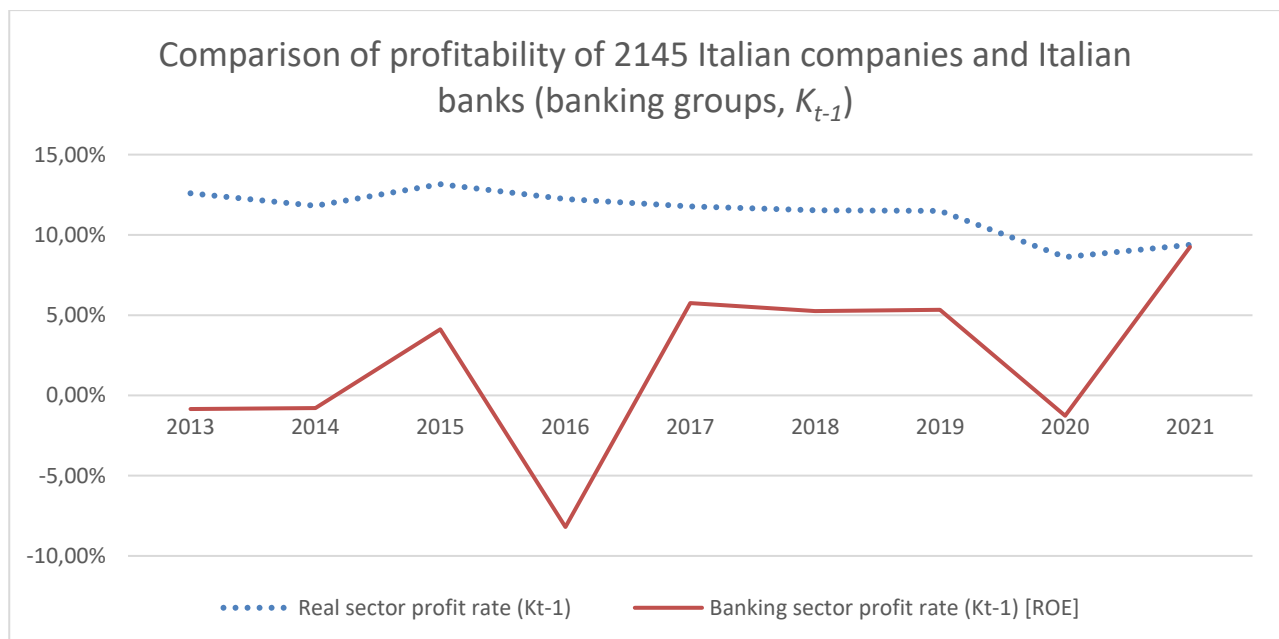
Source: elaboration on data from Mediobanca (2022) and Bank of Italy - Statistical database.

As already noted, the data on the 2145 Italian companies offer a higher estimate of profits than the ISTAT data, which is probably due to the higher profitability of these companies compared to

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[16] See OECD, 2020, Overview table, row concerning Italy and Bank of Italy, 2022, p. 161.

[17] Since 2020, the annual percentage change in the stock of bank loans has a permanently positive value. See 'Aggiornamento sul sistema creditizio', CER, 14 September 2022, https://www.centroeuroparicerche.it/il-credito-cresce-in-attesa-della-stretta-dei-tassi/?fbclid=IwAR0MQnlUdvEmTdSKlJpQLXaUF3bBa7dEAimtMhmiqwcZhB_Kn5K_mL1TJw0 .

[18] See Zolea, 2022a.

Italian companies as a whole and the different balance sheet items analysed. Bank profits are also significantly lower than those of the real productive companies surveyed[19], reversing the results of the comparison between the financial and non-financial sectors in the graph based on ISTAT data (Figures 1 and 2). One possible explanation is that the profit rate calculation methodologies using national accounts data (ISTAT), used to produce the graphs shown in Figure 1 and Figure 2, are based on value added and 'gross operating surplus', thus not taking into account 'provisions and value adjustments', which, in essence, are the main loss item for banks, which base their business on credit[20]. In fact, since banks do not sell their output, but lend it, the loss of a banking industry can be estimated by means of impaired loans: this idea can be likened to a loss resulting from the failure to sell the output produced. Thus, including loan write-downs in the calculation of the banking profit rate[21], in a period of financial crisis, leads to a lower result, which reflects the profitability problems of the banking system. Furthermore, national accounts data only take into account fixed capital, whereas other sources take into account a broader definition of capital, especially in the financial sector, where fixed capital is rather small.

The calculation based on Bank of Italy data should therefore show a more 'truthful' picture, or at least one that takes into account the problem of impaired loans (but it is through national accounts data that the GDP of countries is estimated). The importance in the crisis period of the problem of impaired loans would seem to be confirmed by the fact that between 2016 and 2019 the curves of the bank and production profit rates tend to converge; this could be explained by assuming that the effects on bank profitability of the crisis of the previous years have gradually diminished, bringing the bank profit rate back to a more 'normal' level.

In this regard, Bank of Italy, Annual Report (2021), p. 169, confirms the high level of non-performing loans.

Finally, a comparison is proposed in Figure 7 between the profit rate of the real sector, calculated from national accounts data using the methodology illustrated in the previous section, and the profit rate of the banking sector, calculated as ROE on Bank of Italy data[22]. This representation has the merit of showing the two trends simultaneously, but it lacks the fact that the data sources are

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[19] Note that similar results are seen in Figure 4, where only the largest banks are taken into account, according to the requirements outlined above. It follows that the low bank profitability shown in Figure 5 (and Figure 6) does not result from a particular disparity in profitability between small and large banks.

[20] See Stauffer (2004); Fournier and Marionnet (2009); Bazot (2017). Fournier and Marionnet (2009) state that the 'Produit net' of French banks is significantly higher than the 'Valeur ajoutée' between 1995 and 2008. Since 2007, however, they note a massive drop in 'Produit net'. This result in recent years does not seem too dissimilar to the results obtained in this paper for the Italian banking sector in the post-2008 period.

[21] Output produced but not sold accumulates in larger inventories, which may be subject to a write-down process. Similarly, not all impaired loans are completely uncollectable, but they are often written down.

[22] Basically, Figure 9 combines the real sector of Figure 1 and the banking sector shown in Figure 3.

different and not entirely overlapping and harmonious. It follows that the results should be considered with some caution. It should be noted, however, that a similar methodology has already been used in the literature by Lavapitsas and Mendieta-Muñoz, 2019a, on US data. In this case, the capital correction of Shaikh, 2010 is not presented, as it does not significantly alter the representation.

**Figure 7**
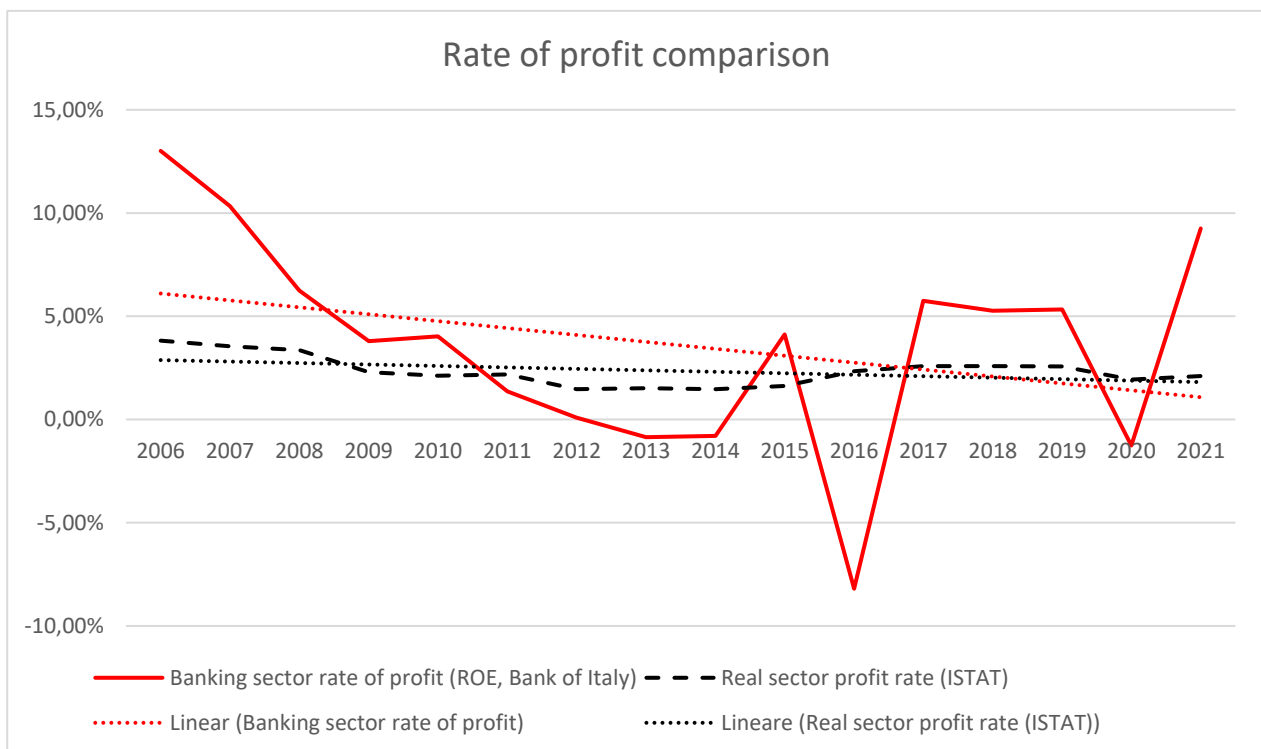


Source: elaboration on ISTAT and Bank of Italy data - Statistical database.

Given the limits to the possibility of comparing different data discussed above, the graph shown in Figure 7 shows a broadly stable trend in the real sector profit rate and a much more oscillatory and random trend in the bank profit rate. The banking profit rate seems to tend to be higher than the productive profit rate, with the exception of the years 2011-2014, 2016 and 2020. These years roughly coincide with the most acute phases of the banking and financial crisis in recent years (all these years show a negative ROE, or close to zero). The linear trend of Figure 7 would therefore confirm the possibility of a higher than normal financial profit rate, although not during the banking crisis years, an abnormal period for the banking sector.

To sum up, national accounts data (ISTAT) concerning finance and specialised financial data (Bank of Italy; Mediobanca Research Area) give very different estimates of the profit rate of the banking

sector, as already identified and discussed by Stauffer (2004); Fournier and Marionnet (2009); Bazot (2017). According to the former, the financial profit rate (no data are available for banks only) is higher than that of the real sector, while the opposite is true for the latter.

Apart from a greater specificity on banks within the financial specialised data, the differences between the two sources seem to be due to the different calculation method and the different balance sheet items taken into account. National accounts estimate financial income by imputation (FISIM), basically not considering finance as producing an output, but as receiving income from an intermediation activity (Stauffer, 2004, p. 6). Furthermore, the profit rate calculation methodology based on national accounts does not take into account the write-down of impaired loans, unlike the specialised data. These drawbacks are not present in banking data, which is usually used in the financial field.

It is also evident that it is through national accounts data that the Gross Domestic Product (GDP) of countries is estimated and that national accounts data present the most complete and systematic system of economic data and statistics. For many purposes, therefore, these data may be more appropriate than specialised financial or banking data. Many authoritative financial profit rate estimates in fact use precisely national accounts data (Duménil and Lévy, 2004; Shaikh, 2010; Bakir and Campbell, 2013; Lapavitsas and Mendieta-Muñoz, 2016).

The analysis of the banking industry carried out in this paper considers credit as banking output, thus departing from the approach followed by national accounts. It follows, therefore, that for the purposes of calculating the profit rate of the banking sector the specialised data of the Bank of Italy are more appropriate (see also Lapavitsas and Medieta-Muñoz, 2017; 2019a).

A bank profit rate lower than that of the most dynamic firms in the real sector (the only ones considered in the Mediobanca Research Area data) does not reflect the commonly held idea of the financial sector. However, it should be noted in this regard that the period examined in this paper is a period of crisis in the banking sector, especially in Italy after 2011 (for an estimate of the earlier period in France, see Fournier and Marionnet (2009); note that in the two authors' estimates of bank profitability in the period prior to 2008 the national accounts data gave lower rather than higher results than the Banque de France's specialised data).

The analysed banking data for Italy do not allow us to confirm the existence of a particularly high profit rate in the banking sector in this historical period. However, Figure 7 would show precisely the peculiarity of the period under consideration and a bank profit rate otherwise higher than the production rate. However, the representation of Figure 7 is not entirely reliable, mixing data from different sources.

## 3. International comparison (Mediobanca, OECD)

The last step in the analysis of bank profit rate data consists of an attempt to compare profit rates in various European and world countries. The sources used unfortunately present fragmentary data[23], but we reconstructed a fairly clear general picture.

Higher bank profitability in the foreign countries considered could be an interesting indication of higher-than-normal profit rates in certain socio-historical contexts.

Figure 8 clearly shows the trend of the average ROE of major European, US, Japanese and Chinese banks between 2009 and 2017 (Mediobanca, 2019a[24]). Chinese banks have a much higher ROE than US and Japanese banks[25], which have a fairly similar ROE. European banks close the ranking, whose ROE is the lowest since 2010.

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[23] For example, the OECD does not present banking data on the UK. See also Bazot (2017), p. 129.

[24] From Mediobanca (2019a), p. 140: 'The selected companies include the major banking groups of the world's three largest economic areas (Europe, Japan and the United States, referred to as the 'triad' for brevity) and China. The selection criterion adopted for the triad is total balance sheet assets. To be included in the sample, companies must represent a significant share of the aggregate total assets of the respective region. Significance is defined by adding companies to the sample as long as their contribution is greater than one per cent of the previous aggregate total of balance sheet assets; those banks whose contribution is less than one per cent of that aggregate are excluded. For China, the top 10 banks by asset size were considered' (my translation).

[25] It should be noted, however, that the Chinese financial system is quite different from that of Italy or the US and the Chinese State's control over the financial market is significantly greater. See Gabriele, 2020; Gabriele and Jabbour, 2022.

**Figure 8**



Comparison of ROE USA - Japan - EU - China
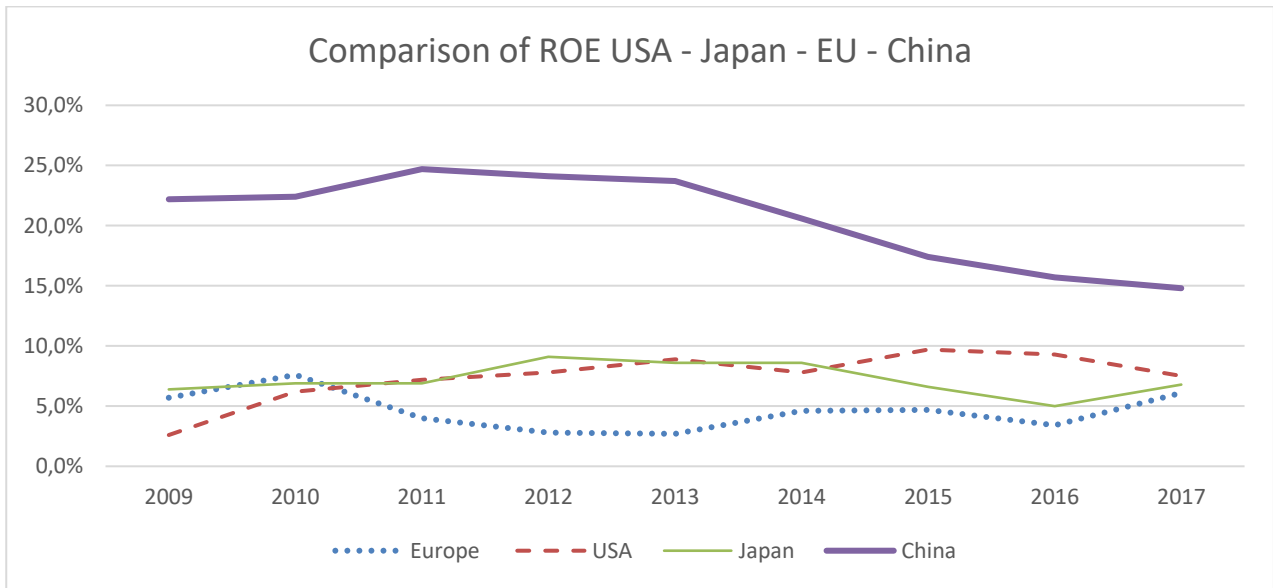
Source: elaboration on Mediobanca data.

Figure 9 depicts the ROE trends of France, Germany, Italy, the Netherlands, Switzerland and the USA (OECD data).

In general, the profit rate estimated through ROE of Italian banks does not deviate much from the trend of banks in the other countries considered; between 2007 and 2009, the ROE of Italian banks declined the least. Then note the trend in US bank ROE, which goes from being the lowest in the 1980s to being the highest between 1992 and 2004 (Figure 9).

**Figure 9**



Comparison of bank ROEs, main countries

Legend: France, Germany, Italy, Holland, Switzerland, USA
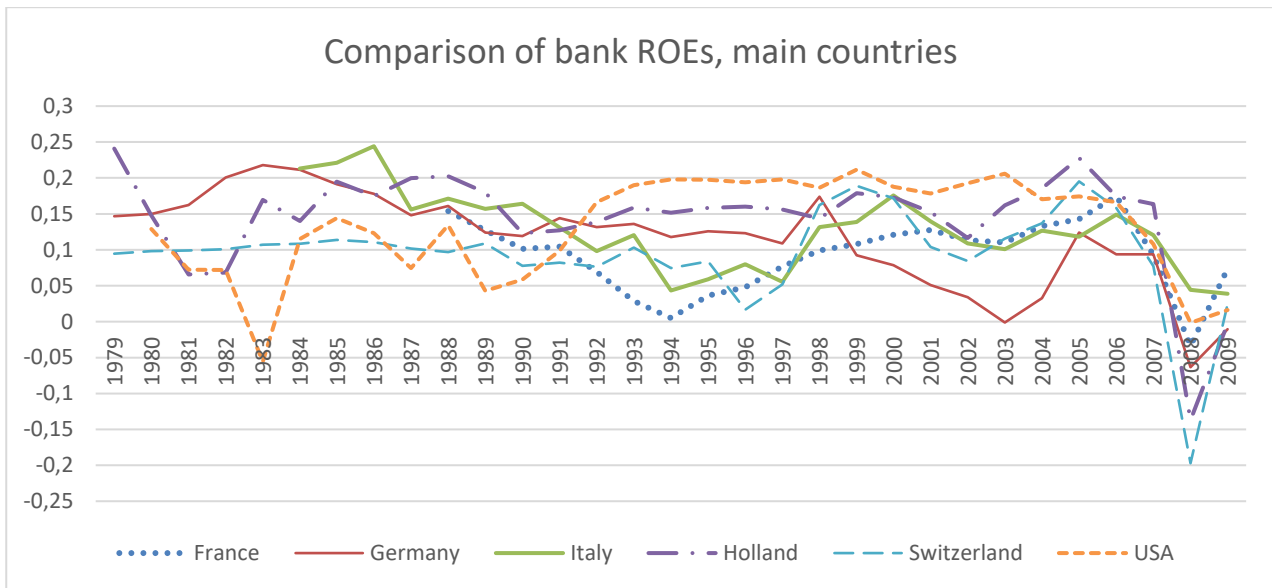
Source: elaboration on OECD data. Note that the time series for Italy starts in 1984, for France in 1988; that for the USA in 1980.

Putting Figure 8 and Figure 9 together gives an idea of the ROE trend in some of the major European and world economies between 1979 and 2017. This is due to the fact that the two series (OECD and Mediobanca Research Area) do not present complete data for the entire period considered (nor for the same countries)[26]. However, by ideally combining the data from the two sources, it is possible to get an idea of the international picture over a fairly wide time span.

Finally, we discuss the graph presented by Lapavitsas and Mendieta-Muñoz (2019a, Figure 2, p. 8), cited above. Using a similar methodology to that used in Figure 8, the graph of Lapavitsas and Mendieta-Muñoz (2019a, Figure 2, p. 8) is particularly useful for an international comparison between the US and Italy (although the two authors show a considerably longer time series).

The comparison between Figure 8 and Lapavitsas and Mendieta-Muñoz (2019a, Figure 2, p. 8), confirms the highly fluctuating trend in bank profit rates and the fall of the latter due to the financial crisis of 2007 (although the most serious effects came later in Italy with the so-called 'sovereign debt crisis').

It can therefore be concluded that the international comparison shows a disappointing dynamics of European bank profits in recent years compared to the rest of the world. These data therefore indicate that bank profitability tends to be higher abroad. A high level of bank profitability (in some cases at a spectacular level: China has a bank ROE steadily around 20%, Figure 8) is certainly a

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[26] On some difficulties and problems in OECD banking data see Bazot (2017), p. 129.

prerequisite for a higher-than-normal bank profit rate. This could be the starting point for interesting future studies.

The great fluctuation of the bank profit rate, however, makes it difficult to state a stable and lasting dynamic above or below the profit rate of the productive sector (used as a benchmark of the general one). This confirms the approach followed in Zolea (2021, 2022c), which envisages the possibility of higher-than-normal bank profit rates, but without taking this hypothesis as an obligatory and absolute condition, considering it instead as a possibility within the dynamics attributable to the contrast between classes and between subclasses of capitalists, in a Marxian context (Marx 1894).

**Conclusions**

An attempt was made to calculate the profit rate of the banking sector, trying to find an empirical confirmation of a higher-than-normal bank profit rate.

The calculation of the bank profit rate shows a substantial difference between national accounts data (ISTAT) and bank-specific database data (Bank of Italy, Mediobanca Research Area, OECD). First of all, it must be pointed out that the national accounts data show the aggregate data of the entire financial sector and not just the banks; furthermore, the calculation methodology using ISTAT data is based on added value. The other sources, on the other hand, are based on 'gross banking profit'.

The result is peculiar: the national accounts data show a much higher financial profit rate (within which the banks are found) than that of the real sector; the comparison using bank data, on the other hand, shows a higher profit rate of the main companies of the real economy than that of the banks. In the 'gross banking profit', in fact, value adjustments due to non-performing loans are taken into account. Within the national accounts, however, this figure seems to be lost, although it often represent a very valuable indication of bank losses related to its intrinsic business: lending.

Combining national accounts data for the real sector profit rate and specialised data for the bank profit rate results in a fluctuating trend of the bank profit rate, sometimes higher and sometimes lower than the real productive rate. The linear trend of the profit rate of the banking sector is decreasing from a higher level than that of the production sector to a lower one.

In an international comparison, European banks show the lowest profitability levels compared to the US, Japan and China. The comparison with other countries also confirms the existence of profitability problems in the period after 2007-2008, linked to the economic-financial crisis, which

in Europe and Italy had a rather long aftermath.

The rather divergent data analysed do not allow us to assert with certainty that bank profitability is stably above average, nor do they allow us to assert the contrary. Certainly, the period considered is rather 'eventful' (one of the most important economic crises for decades and a global epidemic with devastating socio-economic effects) and does not help to understand a long-term theoretical phenomenon such as the profit rate trend. However, the unstable and fluctuating trend of the bank profit rate, confirmed by estimates on rather long time series referring to the USA, seems to confirm the conflicting aspect of bank profitability, as Marx predicted.

It can be argued that since bank profitability depends on the conflict between classes and subclasses of capitalists, it varies over time according to the power relations that gradually prevail (Marx, Book III of *Capital*). The hypothesis of a 'natural' higher than normal profit rate in the banking industry thus seems to be discardable, as banking concentration depends on the course of social conflict between classes and within the class of capitalists. A not insignificant actor in this conflict is the State (or the monetary authorities with decision-making powers on monetary policy and regulation; in the eurozone, essentially the ECB), which through its intervention can significantly affect bank profitability: indirectly, by modifying banking regulation and managing policy rates, and directly, by intervening in the banking market with loan guarantees and extremely favourable bank financing conditions. Evidence of this is the particular increase in the Italian bank profit rate in the year 2021, probably largely due to the extraordinary measures implemented by the central bank and the Government during the pandemic period.

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