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HOUSEHOLDS' INVESTMENTS IN FOREIGN MUTUAL FUNDS MADE TRANSPARENT

by Massimo Coletta* and Raffaele Santioni*

Abstract

The share of foreign investment funds in the portfolio of Italian households, negligible up to the mid-1990s, has risen significantly since 2012. At the end of 2018, these funds represented 16 per cent of households' financial portfolios and 54 per cent of their total investment fund holdings. Through foreign investment funds, households invest in the global financial markets, thereby increasing the degree of geographical diversification of their investments and, in principle, improving the risk-profile of their portfolios. By using a combination of very granular databases, this paper provides for the first time a comprehensive description of the foreign funds held by Italian households, with a particular focus on the period 2008-2017. The main contribution is the discovery of the final destination of the savings invested by Italian households via foreign mutual funds, broken down by country, sector and type of instrument. Moreover, the high data granularity has enabled us to estimate the total expense ratio and the net return, broken down into the main fund categories.

JEL Classification: G11, G23, G50.

Keywords: asset allocation, look-through, mutual funds, portfolio investment.

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Contents

* Bank of Italy, Directorate General for Economics, Statistics and Research.

1. Introduction[1]

The first foreign mutual fund was introduced in Italy in 1960, more than twenty years before the appearance of the first Italian mutual funds in 1984. For a long time foreign funds remained negligible in the Italian financial sector and as part of households' financial wealth. From the second half of the 1990s they have progressively grown in popularity and have contributed to the diversification of household portfolios to include asset management products, including during the severe crisis suffered by Italian mutual funds during the first decade of this century. At the end of December 2018, foreign funds were far more important than Italian mutual funds, with assets under management amounting to about €710 billion, equal to 70 per cent of the Italian fund market. Total foreign funds held by Italian households amounted to €265 billion, equal to about 6 per cent of their total financial wealth. Italian households were the main holding sector of foreign funds, with a share of about 37 per cent of the total amount held by residents, followed by other financial intermediaries (28 per cent) and insurance corporations and pension funds (22 per cent).

Foreign funds can be part of complex financial chains: they can be set up by either foreign or domestic asset management companies, which in turn can be controlled either by non-resident or by domestic financial groups. The Italian market terminology classifies them into two broad categories: "pure foreign funds", i.e. those controlled by foreign financial groups, and "round-trip funds", i.e. those under the control of Italian groups. At the end of 2018, pure foreign funds managed about 60 per cent of the net assets held by foreign funds traded in Italy. Foreign funds invest in a variety of securities and commodities issued across the globe, and frequently in securities issued in the countries where they are authorized to be negotiated. On the one hand, these products permit households to diversify their financial investments, especially geographically; on the other hand, they expose households to more heterogeneous and complex risks than those associated with bank deposits, government securities or shares in family businesses and in small corporations. Possible shocks hitting the portfolios of foreign funds may affect the value of households'

[1]We would like to thank Massimiliano Affinito, Giorgio Albareto, Riccardo De Bonis and Marcello Pericoli for their helpful comments. We would particularly like to thank Emanuela Bassi, Institutional Account Manager, and Francesco Paganelli, CFA research analyst, at Morningstar Inc. for their invaluable advices. The views expressed are our own and do not necessarily reflect those of the Bank of Italy. All remaining errors are ours.

wealth with a consequent impact on their saving and consumption decisions (the so-called wealth effect). The removal of the "intermediation veil", by looking through the underlying investments, thus proves essential to capture the real ultimate destination of households' saving.

Since foreign funds are issued in only a few financial centres, mainly Luxembourg and Ireland, official statistics on cross-border positions in such instruments are affected by significant opacity, because they do not allow us to identify the ultimate destination country of investment and the composition of foreign assets by instrument.

A complete analysis of the main characteristics of the foreign funds and of the composition of the indirect financial investments has been traditionally hampered by low data availability. However, it must be noted that until a few years ago the data shortage was not perceived as relevant, because foreign funds were not as important in the Italian mutual fund market as they are today. The national competent authorities (Consob and the Bank of Italy) have partial access to information on foreign funds because the relevant supervisory powers follow the "home country" approach. On the other hand, the Association of the Italian Investment Management Industry (Assogestioni) has progressively disseminated more granular data provided by its members but only on net subscriptions and net assets of foreign funds, even though broken down into several dimensions (e.g. managing groups, managing companies and investment categories).

However, in spite of the lack of detailed direct supervisory statistics, over the last few years significant enhancements have been made to some statistical domains, which make it possible to carry out a comprehensive analysis of the foreign mutual funds traded in Italy and in particular of their underlying portfolios. First, there has been an improvement in the quality and quantity of statistics on securities placed in custody with banks by investors; second, the creation by the European System of Central Banks of the Centralised Securities Database (CSDB) containing granular information security-by-security; and third, the availability of fund-level information in commercial databases developed by global financial service providers as a result of the significant worldwide growth of the asset management industry.

Two recent studies carried out at the Bank of Italy applied the look-through approach to remove the intermediation veil on domestic and foreign investments. Cardillo and Coletta (2018), applying a micro look-through approach, provide first evidence on Italian household investments through domestic asset management products. The main finding is that the indirect portfolio is primarily composed of Italian government debt securities and characterized by a significant share of bonds and equities issued by foreign intermediaries and non-financial firms. Della Corte et al. (2018), updating the first results published in Felettigh and Monti (2008), use a macro look-through approach to estimate the composition of the portfolio of foreign funds held by Italian investors: after looking through foreign funds' holdings, the share of debt securities rises from 40 per cent (before) to 70 per cent (after); the external portfolio held by Italian sectors becomes more geographically diversified.

By combining micro supervisory and security-by-security statistics with the fund-by-fund market data contained in the database managed by Morningstar Inc., one of the largest global mutual fund data providers, this is the first paper that analyses the characteristics of the foreign investment funds held by Italian households in the period 2008-2017 from different perspectives. The main contribution consists in the application of the look-through approach to the portfolio of each foreign fund actually held by Italian households, which provides novel evidence on the final destination of households' investments by country, sector and type of instrument. These data are not available in the statistics on mutual funds collected by the Bank of Italy. Moreover, the micro approach allows us to provide estimates on management fees and net returns by asset classes.

The rest of the paper is structured as follows. Section 2 provides an overview of the role of foreign funds in the Italian financial system in the approximately sixty years from their first appearance. Section 3 describes the data sources. Section 4 discusses the main features of foreign mutual funds in Italian households' portfolio while Section 5 analyses fees and performances. Section 6 describes the indirect investments of Italian households through foreign funds from several perspectives. Section 7 recaps the main findings of the paper and draws the conclusions. Finally, the Appendix A contains a description of the methodology and the key variables used in the analysis.

2. Historical perspective

The appearance in Italy of the first foreign mutual fund dates back to October 1960, when Interitalia, an open-end fund governed by Luxembourg law specialized in investment in equities and bonds issued by Italian residents, was introduced by a joint initiative of an Italian bank (Banco Ambrosiano) and two foreign intermediaries (Hardy & Co. and Hentsch & Cie) thereby initiating the phenomenon of round-trip funds, that would have grown forty years later.[2]

Following those already undertaken in other European countries (Belgium, France, Germany, the Netherlands and the United Kingdom), the innovation intended to offer new opportunities to Italian investors and funding sources alternative to bank credit to non-financial corporations. Yet these expectations did not materialize. The Italian financial system continued to be bank-based and the restrictions imposed on international capital flows – aimed at keeping national savings in Italy – contributed to hamper the diffusion of foreign funds despite their being authorized provided that the investments were made mainly in Italian equities and bonds.[3] The history of foreign funds in Italy is therefore emblematic of the slow development of the Italian asset management industry notwithstanding a generalized awareness of the inadequacy of the Italian financial system to fulfil the needs of investors and borrowers. For instance, in his remarks to the Annual Report for 1968, the Governor of the Bank of Italy stressed the importance of mutual funds for the development of the Italian economy (see Bank of Italy, 1969).

During the first twenty years, there were about a dozen foreign funds, which showed pro-cyclical behaviour. Initially, the long decline of the Stock Exchange discouraged the launch of other initiatives until 1967. Subsequently, net inflows alternated with net outflows in line with changes in economic conditions. At the end of 1983 the net assets managed amounted to about €1.5 billion. The weight of foreign funds remained, however, rather negligible both as a proportion of the total assets of the financial sector and of the total assets of Italian households (below 1 per cent). Nevertheless, by keeping alive the interest of investors, authorities and policy makers, foreign funds paved the way for the introduction of Italian funds. In particular, during the turbulent 1970s these products proved how beneficial collective saving management could be to households by providing good returns and by protecting on average households' savings from the high inflation that on the contrary eroded the value of the traditional financial instruments prevailing at that time.

[2]For a short but comprehensive history of the mutual fund industry in Italy see Rota (2015). For details at the fund level see Palladino (1983).

[3]For an overview on the restrictions on international capital flows in Italy see Micossi and Rossi (1998).

In the meantime, Italian banks gradually lost interest in the placement of these products with Italian savers;[4] At the beginning of the 1980s, two non-bank networks (Fideuram and Dival-Ras) had a market share of about 80 per cent. The introduction of the first Italian mutual funds in 1984 marked the official birth of the Italian asset management industry. After registering net inflows during the first cycle of growth of Italian funds (1984-1986), from 1987 to 1994 foreign funds recorded net outflows almost continuously, as a consequence of the lack of development and promotion by Italian management groups. As a result, at the end of 1994, foreign funds (still exclusively of the round-trip variety), represented only 6 per cent of the funds negotiated in Italy with 4.5 billion of net assets under management. Their share of households' total assets remained negligible at 0.3 per cent.

In 1995 Italian households returned to investing in foreign funds and from 1996 they began to make significant investments in Italian mutual funds as well.[5] It was the beginning of the second cycle of growth of the Italian industry that from 1996 to 1998 registered record net inflows of €430 billion; €67 billion were attributable to foreign funds.[6] Households contributed significantly to this performance. Several factors determined the recomposition of households' financial wealth towards mutual funds: the convergence with the European Economic and Monetary Union which determined the fall of interest rates; the performance of the stock exchanges driven by the boom of the dot-com companies; financial globalization; lower household risk-aversion; and the development of new and diversified products.[7] In 1999 the proportion of mutual funds in households' financial wealth reached the historical peak of 19 per cent, while foreign funds still represented only a small share of their total mutual funds (4 per cent) and of their total financial assets (less than 1 per cent). The banking system, which could take advantage of its proximity to households,

[4]Towards the end of the 1970s, bank deposits constituted about 70 per cent of the Italian households' total assets, the highest historical share.

[5]Italian households invested in mutual funds also through portfolio management services mainly provided by banks. It is estimated that from 1995 to 2002 the foreign funds held by all Italian investors through portfolio management services accounted, on average, for 40 per cent of all foreign funds negotiated in Italy.

[6]In these years, the number of foreign funds negotiated in Italy grew significantly because funds controlled by non-resident intermediaries also entered the market. At the end of 1997, the Supervisory Authority on Financial Markets surveyed about 600 of the authorized foreign asset classes.

[7]The 1998 Consolidated Law on Finance harmonized and reorganized the Italian legislation into a coherent framework and innovated the area of collective savings management by introducing a new type of financial intermediary - the asset management company, authorized to carry out both collective and individual portfolio management.

played a significant role: the net assets managed by bank-affiliated networks surpassed those managed by non-bank intermediaries. Banks channelled not only new household savings but also the proceeds of the reimbursement of Government bonds towards mutual funds.[8] From 2000 to the end of 2002, households invested €11 billion in foreign funds (net of redemptions) against net redemptions of Italian funds for the amount of €4.6 billion. Moreover, the negotiation of the first foreign exchange traded funds (ETFs) on the Italian Stock Exchange at the end of 2002 gave Italian households the opportunity to invest in products with a more favourable risk-return profile.

In 2003 Italian funds suffered a period of crisis, whose causes and remedies have been long and widely debated.[9] While foreign funds, at first, continued to register net inflows until 2006,[10] in the period 2007-08 they recorded significant net outflows that exacerbated the shrinking of the Italian market. Italian households were a main contributor. As a result, despite the weight of mutual funds in the households' wealth declining by 7 percentage points to 6 per cent in the period 2003-08, the weight of foreign funds remained unchanged at 1.3 per cent and their share in households' mutual fund portfolio grew from 10 to 22 per cent.

Even though the crisis for Italian mutual funds continued until 2012, the year 2008 probably marks the end of the worst negative cycle for the Italian market. In the second quarter of 2009 the net inflows of foreign funds turned positive again and were larger than the outflows of Italian funds. By 2010, foreign funds had become prevalent in the Italian market. In 2013, the third cycle of growth of the Italian mutual fund market began.

Since 2009, foreign funds have recorded sustained growth in households' portfolios, with the exception of the second half of 2011 when the euro-area sovereign debt crisis led households to

[8]Moreover, during the second half of the 1990s, banks began to sell a large part of their securities issues to Italian households, a practice that continued until 2012 (for more details see Coletta and Santioni, 2018).

[9]For a detailed discussion of the main determinants of the crisis and of the possible lines of intervention, see Bank of Italy (2008), Spaventa (2008), Messori (2007, 2008). The analyses indicate that the crisis was attributable to three main factors: asymmetries in the regulation of financial products; the characteristics of the mutual funds' distribution structure; and the tax treatment.

[10]Pure foreign funds progressively increased their importance: at the end of 2006 there were 2,400 such funds authorized to negotiate in Italy, twice the amount of round-trip funds that, however, were still largely predominant in terms of net assets managed (over 70 per cent). The president of Assogestioni in his speech at the 2006 assembly of the Association commented positively on the role of pure foreign funds as a sign of the increased openness and competitiveness of the Italian market while, on the contrary, he said that the predominant weight of round-trip funds was the demonstration of the comparative disadvantage of the Italian mutual fund market due to inadequate regulation and taxation.

reduce their exposure to foreign funds and to invest heavily in government bonds. At the beginning, the growth was mainly attributable to round-trip funds, while subsequently it was driven by foreign funds controlled by foreign intermediaries, reflecting the dynamics of the market.[11] Since 2013, foreign funds have become the most important foreign asset in households' financial wealth and, since the beginning of 2017, they have become more important than Italian funds. In the last decade, the large investments by households in foreign funds (about €180 billion)[12] have contributed to bringing the financial assets directly invested abroad[13] to 11 per cent of their total assets (end-December 2018), a share higher than that of households resident in the other leading European countries. The overall weight of mutual funds in households' balance sheet has returned to 12 per cent, a percentage not seen since 2004, but still far from the maximum of 19 per cent reached in 1999.

At the end of 2018, foreign funds held by Italian households amounted to €265 billion, equal to 54 per cent of their mutual fund portfolio and to about 6 per cent of their total financial wealth. Italian households were the main holding sector for foreign funds, with a share of about 37 per cent of the total amount held by residents, followed by other financial intermediaries, insurance corporations, and pension funds. Moreover, it is estimated that Italian households held about 20 per cent of foreign funds through the portfolio management services provided by asset management companies, banks and securities firms.

The growth of foreign funds in households' portfolios[14] signals that, despite a low degree of financial literacy by international standards, Italian households are increasingly aware of the need to diversify their investments.

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[11] In these years households showed increasing interest in a new generation of funds characterized by a more flexible asset allocation. An example is the target-date funds that made their appearance in the Italian market in 2011 and at first they were exclusively round-trip funds.

[12] Equal to 42 per cent of the total net acquisitions by households of asset managed products. These investments were also made through portfolio management services.

[13] Cardillo and Coletta (2018) have analysed the investments underlying the Italian asset management products held by households and have found that half of the underlying portfolio is invested abroad.

[14] The net assets of foreign funds held by all Italian investors have risen from about €250 billion at the beginning of 2008 to €710 billion at the end of December 2018 (70 per cent of the market).

3. Data description

We have built a novel dataset combining four main data sources. Our data allow us to analyse the foreign mutual funds actually held by Italian households in the period 2008-2017.

The main source is the statistics on financial instruments held in custody by banks operating in Italy. Custodial statistics, collected monthly by the Bank of Italy on a security-by-security basis (i.e. Isin-by-Isin), provide information on domestic and foreign debt securities, equities and mutual fund shares held by all categories of investors. These data are used to identify foreign mutual funds held by Italian households.

Secondly, we have matched the custodian banks' statistics with fund-by-fund information available in Morningstar Direct, a granular database of the universe of mutual funds traded worldwide, managed by Morningstar Inc., an investment research company and provider of analysis, ratings and data. Morningstar Direct includes data on both active and non-active funds (survivorship bias-free). In particular, from this database we have collected the following information: fund's name; asset management company (AMC henceforth); investment objective; ISIN code of each position held by foreign funds in shares, bonds and derivatives;[15] Morningstar rating; net returns and fees charged to investors. Even though the majority of funds report their portfolio composition on a monthly or quarterly basis to Morningstar, for the purpose of our analysis we have collected annual information on each position. Table A1 in the Appendix provides a description of the main variables used in this paper.

The third source is the Centralised Securities Database (CSDB) that has been used extensively to classify foreign funds' underlying positions according to their currency, maturity and issuing sector. This database is a security-by-security database developed by the European Central Bank and jointly operated by the members of the European System of Central Banks (ESCB) that contains reference, price, rating and statistical classification data for more than five million active debt securities, equity shares and investment fund units issued worldwide.[16] The CSDB is accessible to the entire ESCB and is updated on a daily basis with inputs from national central banks and several commercial data providers.

[15]The ISIN code is the key variable in that it allows us to match the database with other sources.

[16]For more details, see *The centralised securities database in brief*.

Finally, the Orbis database managed by Bureau van Djik is the source of information on the global ultimate owner (GUO henceforth) of each AMC and on the country in which the GUO is legally incorporated.

Our dataset includes all mutual funds actually held by Italian households. For the look-through approach to mutual fund portfolios, we have built a highly representative sample, a solution that overcomes any technical constraints related to the downloading of universe data. The sample is based on two conditions: (i) the representativeness of each foreign fund in Italian households' portfolios and (ii) the availability of data on the composition of each foreign fund's portfolio. Firstly, we looked at the distribution of the funds, taking into consideration the ratio of the amount held in each fund by households to the amount held in all foreign funds. Secondly, we excluded funds in the lowest decile (i.e. the less significant funds); this choice implies the exclusion of non-EU funds and EU non-harmonized funds (e.g. hedge funds, closed-end funds and trusts) because they are not significant in household portfolios. Finally, we looked through all the funds for which information on the portfolio composition was available in Morningstar Direct. As a result, our sample is composed of European open-end harmonized funds and ETFs[17] which represents 75 per cent of all foreign funds held by Italian households. Given the high granularity of the collected data, our dataset contains about 7 million individual securities held indirectly by Italian households.

4. Main characteristics of the funds

Foreign investment funds held by Italian households from 2008 to 2017 were almost entirely open-end harmonized funds (about 90 per cent) and ETFs (9 per cent). Our dataset includes funds domiciled in 13 countries. However, foreign funds held by Italian households were on average almost entirely domiciled in just four countries: Luxembourg (78 per cent), Ireland (9 per cent), France (9 per cent) and United Kingdom (2 per cent). Conversely, foreign funds set up by

[17] Open-end harmonized funds, i.e. those established and managed in accordance with EU rules and regulations, are open to redemption at any time on the basis on the net asset value and invest predominantly in listed shares and debt securities. Exchange-traded funds (ETFs, also known as "passive" funds) are marketable securities that track an index, a security or a basket of assets, including commodities, and are characterized by low annual expense ratios.

Italian intermediaries were mostly domiciled in Luxembourg and Ireland.[18] Our results confirm that Luxembourg and Ireland are the leading centres for cross-border distribution of investment funds; their legal, fiscal and regulatory framework for investment funds offer advantages that other countries are not able to match. At the end of 2017, net assets managed by the foreign funds held by Italian households included in our sample amounted to €271 billion (Table 1), six times the value at the end of 2008. The growth was mainly driven by the funds controlled by non-domestic entities that were prevalent in all the years analysed. Indeed, from 2008 to 2017 the quota managed by round-trip funds declined from 42 to 18 per cent; the strong decline in 2017 was also due to the acquisition by the French group Amundi of Pioneer Investment from Unicredit, the Italian banking group.

Table 1: **Households' Foreign Mutual Funds: composition by country of the ultimate owner of the asset management company**

This table reports the composition of households' foreign mutual funds by country of the ultimate owner of the AMC over the period 2008-2017. Reported values (by country) are percentages by column. Total is the amount in millions of euros held by Italian households.

Country of the Ultimate Owner	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Italy	42.1	37.5	33.7	37.7	35.0	34.6	31.8	28.5	29.3	18.4
United States	18.5	19.0	20.4	20.9	20.0	21.8	21.3	19.7	19.5	19.5
France	15.9	14.4	11.8	9.8	8.9	8.9	10.9	14	14.4	21.9
United Kingdom	5.1	6.5	7.3	7.3	8.1	8.7	10.4	9.6	8.3	9.2
Bermuda	2.7	3.2	4.0	3.8	4.7	5.3	6.4	7.6	7.2	8.0
Switzerland	5.7	5.8	6.1	5.5	5.4	4.8	4.7	5.1	4.5	4.8
Germany	1.1	1.3	2.8	3.2	5.7	4.7	3.7	3.7	4.1	5.1
Sweden	0.1	0.1	0.2	0.4	0.5	0.7	1.0	1.6	2.7	2.2
Austria	0.6	0.3	0.2	0.3	0.7	0.5	0.4	0.4	0.4	0.4
The Netherlands	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.3
Other countries	6.5	10.2	11.8	9.5	9.7	8.7	7.8	7.9	7.7	10.3
Total (€ millions)	**46,455**	**62,967**	**89,003**	**90,596**	**122,482**	**148,441**	**184,861**	**212,138**	**230,120**	**270,724**

In the period analysed, the retail market of foreign funds traded in Italy was concentrated in the hands of the top asset management groups.[19] In particular, the top three and the top five

[18]The introduction and subsequent spread of round-trip funds were motivated by a more favourable regulatory framework and fiscal system (Assogestioni, 2013): mutual funds based abroad were taxed on a realization basis while those based in Italy were taxed on an accrual basis. However, starting from July 2011, both types of mutual funds are taxed on a realization basis. The Italian investment funds market is analysed in Bank of Italy (2008).

[19]Concentration and competition in the mutual fund industry are policy-relevant topics since they may impact the fees paid and the net return earned by households. Ferreira and Ramos (2009), on examining mutual fund industry competition in 27 countries found that the industry was concentrated worldwide.

groups accounted on average for 32 and 42 per cent respectively of the foreign funds held by Italian households. The largest companies managing round-trip funds were mainly controlled by the top five Italian financial groups: Unicredit (until mid-2017), with Pioneer Investment; Intesa, with Eurizon Capital, the largest Italian fund manager; Fideuram and UBI, two private bankers; and Generali, the largest Italian insurance group. The 2018 agreement between Poste Italiane and Anima signals that the market concentration is expected to increase further. In the same period, Italian households held an average share in assets managed by round-trip funds that was significantly higher than that held in assets managed by pure foreign funds (Table 2).[20] Considering the top three asset management groups, the fund size held by Italian households was slightly higher for both round-trip and pure funds (31 and 7 per cent respectively).

Table 2: **Households' Foreign Mutual Funds: descriptive statistics by type of fund**

This table presents the baseline statistics on the foreign funds held by Italian households, broken down between those controlled by foreign intermediaries (pure funds) and those controlled by Italian intermediaries (round-trip funds). The symbol (#) denotes the number of AMCs, the number of funds and of asset classes. The fund size is the net asset value at the end of period, while the size held by households is the percentage of participation.

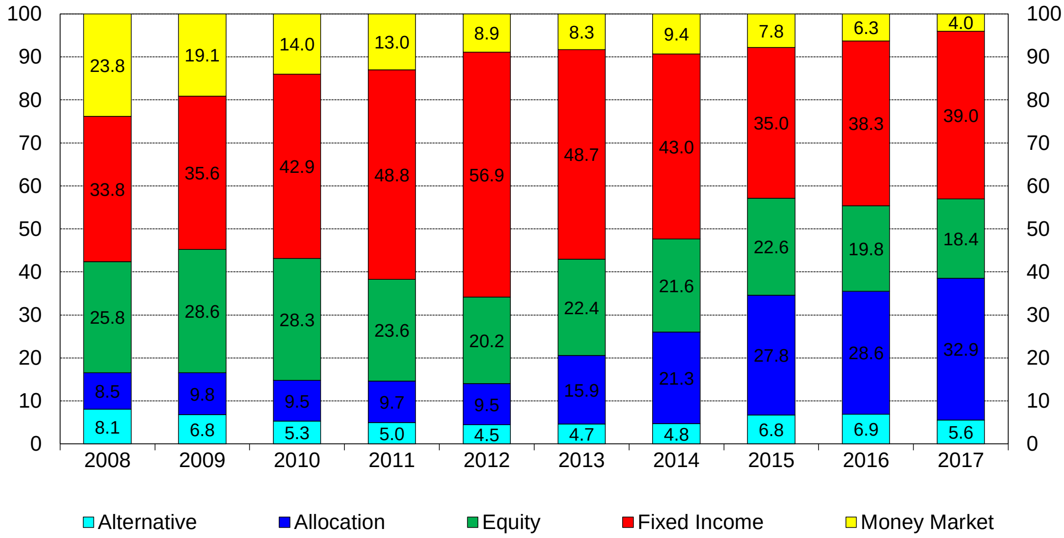
Type of fund	2008	2011	2014	2017
Pure funds				
AMC (#)	627	702	666	902
Fund (#)	2,796	3,143	3,398	4,581
Class (#)	5,729	7,306	9,655	13,688
Fund size (€ millions)	786,741	1,441,304	2,605,031	3,424,375
Fund size held by households (%)	2.8	3.4	4.2	6.4
Top 3 AMCs				
Fund (#)	419	396	467	564
Class (#)	1,415	1,559	1,937	2,304
Fund size (€ millions)	223,058	423,885	576,235	582,379
Fund size held by households (%)	4.9	5.3	7.5	13.1
Round-trip				
AMC (#)	115	102	94	43
Fund (#)	476	606	770	269
Class (#)	765	944	1,305	445
Fund size (€ millions)	88,785	125,169	198,731	105,826
Fund size held by households (%)	22.0	27.3	29.5	18.6
Top 3 AMCs				
Fund (#)	280	382	468	199
Class (#)	517	634	823	345
Fund size (€ millions)	66,319	89,307	147,263	86,756
Fund size held by households (%)	26.3	34.7	34.0	22.2

[20] A study by Rota and Giuliano (2012) of the Italian household demand for mutual funds for the period 2002-2010 shows that the household share of the net assets managed by the round-trip funds surveyed, representing about 30 per cent of the total net assets of the round-trip funds traded in Italy, was between 40 and 50 per cent.

According to the Morningstar classification, funds are split into five categories. Fixed income funds have been dominant on average in households' portfolios (Figure 1).[21] These funds gained momentum during the sovereign debt crisis due to the high interest rate environment and the 'search for yield' behaviour; at the end of 2012, their share in the total assets indirectly held by Italian households peaked at 57 per cent. After the crisis, the weight of this category declined to 35 per cent and then stabilized around 40 per cent.

Figure 1: **Households' Foreign Mutual Funds: composition by category**

This figure plots the percentage composition of the households' foreign mutual funds by category over the period 2008-2017. The description of Morningstar fund categories is provided in the Appendix (Table A1).



In recent years, Italian households have rebalanced their foreign funds portfolio in favour of products characterized by less cautious risk-return combinations. Two supply and demand factors have contributed to this pattern: i) the awareness of asset managers of the need to innovate their offer with products that are less constrained to specific asset classes; and ii) the increasing preference of Italian households for allocation funds,[22] whose share rose from 9 per cent in 2008 to 33 per cent in 2017. Finally, the macroeconomic scenario characterized by yields on debt securities

[21]These results are coherent with the macro-based estimates provided by Della Corte et al. (2018) for all the Institutional Sectors.

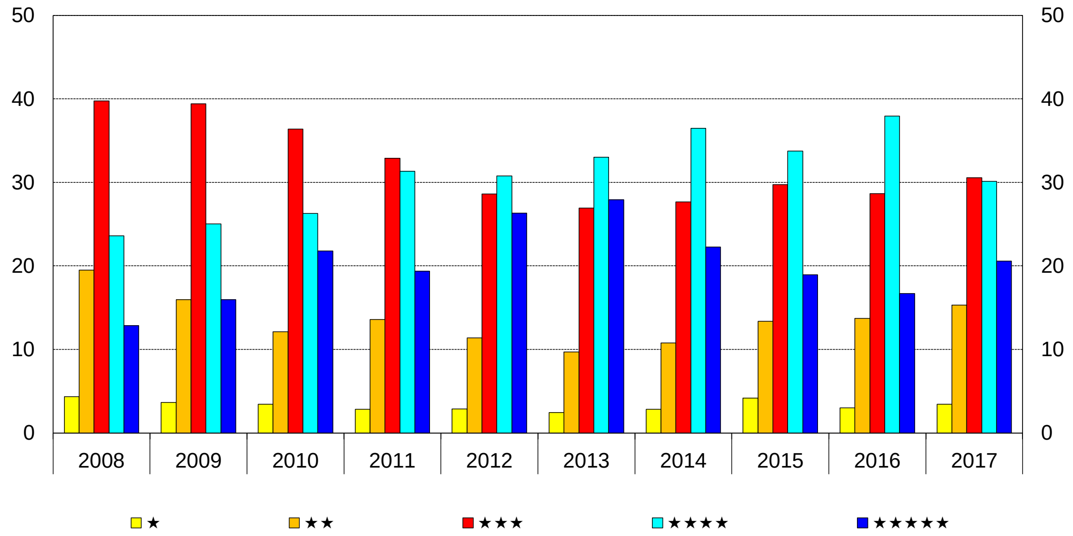
[22]Morningstar classifies funds that can invest in different asset classes in this category. In particular, households invested in fixed-term allocation funds characterized by a fixed time horizon (usually from 3 to 5 years) and generally by periodic coupon detachments. Since these funds are allowed to apply distribution fees rather than entrance fees, they are very attractive for distributors.

that have fallen below zero has significantly hit the money market category, which plummeted by 20 percentage points to 4 per cent.

According to the Morningstar rating classification (see Appendix A.3), in the period 2008-2017 the quality of foreign funds in Italian households' portfolio improved. The weight of 4- and 5-star funds (highest quality) increased from 24 to 30 and from 13 to 21 per cent respectively (Figure 2), while the incidence of the intermediate categories (3 and 2 stars) decreased. The share of the worst rated category (1-star funds) remained below 5 per cent. These results, based on the positions held by households on each fund at the end of the reference year, do not allow us to disentangle the two main determinants of the dynamics observed: the exogenous component, i.e. the active role of households in selecting higher rated funds, and the endogenous component, i.e. the change in the rating assigned to the funds held by households.

Figure 2: **Households' Foreign Mutual Funds: composition by star rating**

This figure plots the percentage composition of the households' foreign mutual funds by Morningstar star rating over the period 2008-2017. The description of Morningstar quantitative ratings is provided in the Appendix (Table A1).



Moreover, the results must be interpreted by taking into account that a significant share of funds are not eligible for the Morningstar rating. In particular, about 40 per cent of foreign mutual funds held by Italian households in the period 2008-2017 were not covered by the Morningstar rating. This is the consequence of the selection criteria on which the assignment of the rating is based.[23]

Morningstar (2015) has investigated the link between net inflows and both star ratings (quantitative) and analyst ratings (qualitative) and concluded that rating drives fund flows.[24] Investors show a strong preference for funds with favourable ratings. In particular, the paper finds a monotonic pattern of flows as star ratings increase: an average outflow for funds with a rating of between 1 and 3 stars and an average inflow for 4- and 5-star funds.

The Morningstar database includes information on the currency used to report net assets (denomination currency).[25] For the period under analysis, the euro represented on average the denomination currency of 87 per cent of foreign funds; the remaining part was mainly denominated in US dollars (10 per cent).

5. Fees and net returns

General overview. Costs and returns are key indicators for the mutual funds' industry. They measure the efficiency of asset management companies and they indicate in particular whether intermediaries add value to or subtract value from investors' savings.[26]

The total costs associated with investing in mutual funds comprise the expenses charged to the fund that are indirectly incurred by investors (management and performance fees, the remuneration of the custodian bank and other ongoing costs), and expenses charged directly to investors (subscription and redemption charges). The number and type of costs vary according to the characteristics of the funds (e.g. active or passive management, age, fund and family size), of the industry (e.g. fund governance, level of competition and managerial skills) and of the financial

[23]A mutual fund must have at least 36 continuous months of total returns in order to receive a quantitative rating. In addition, a fund becomes eligible for a suspension if it has changed its broad asset class or if it has an exceptionally long period of time in cash form. If a fund is eligible for suspension, the local research team will review the situation and determine if the suspension should take place. Three years after the suspension date, the fund will be eligible for a three-year rating and an overall rating.

[24]Knuutila et al. (2007) used the Morningstar ratings to study the correlation between net inflows and star ratings in the Finnish market, and only found a positive correlation for non-bank funds.

[25]A correct evaluation of the overall currency risks should also consider the original currency of the underlying assets – which can be different from the denomination currency – and the hedging operations carried out by asset managers to protect against exchange-rate fluctuations: this information is not available.

[26]The Directive 2014/65/EU on markets in financial instruments (MiFID II) requires investment firms to provide full disclosure of costs and charges to enable clients to make more informed decisions and ultimately to apply downward pressure on the charges they pay.

system (e.g. efficiency of the trading system). Moreover, the expenses and loads vary from country to country. A great deal of empirical literature has studied the determinants and the evolution of funds' costs in different markets (e.g. Khorana et al., 2009; Cooper et al., 2018). The analyses regularly released by Morningstar confirm that the global mutual fund industry is experiencing a declining trend in average fund fees, mainly driven by the strong competition from passive funds and ETFs.

The costs indirectly incurred by investors are typically measured by the Total Expense Ratio (TER), which represents the percentage of the fund assets used to pay for operating expenses and management fees, including marketing and promotion fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. A broader measure is the Total Shareholder Cost (TSC), which can be obtained by adding the subscription and redemption fees paid by investors to the TER.[27]

Among the many factors that shape households' opinion of the industry and their propensity to invest in mutual funds, performance is probably the most influential.[28] The fund performance is an indicator that is as essential as it is controversial to interpret and difficult to manage correctly, especially for retail investors, since it aims to synthesize the performance of a portfolio composed of a variety of financial instruments, while taking into consideration its dynamism, due to the frequent inflows and outflows, and all the expenses directly and indirectly borne by investors.[29]

Our estimates. Despite the availability of numerous statistics on costs and returns of investment

[27] Albareto et al. (2017), in light of the increase in inflows to Italian target-maturity funds, whose fee structure sets particularly high exit charges in the event of redemption before maturity, estimate the TSC for Italian open-end funds in the period 2006-2016 and find that the TSC is on average 1.58 per cent of the funds' total assets. Moreover, they find evidence that subscription and redemption fees reduce the elasticity of subscriptions and redemptions with respect to returns.

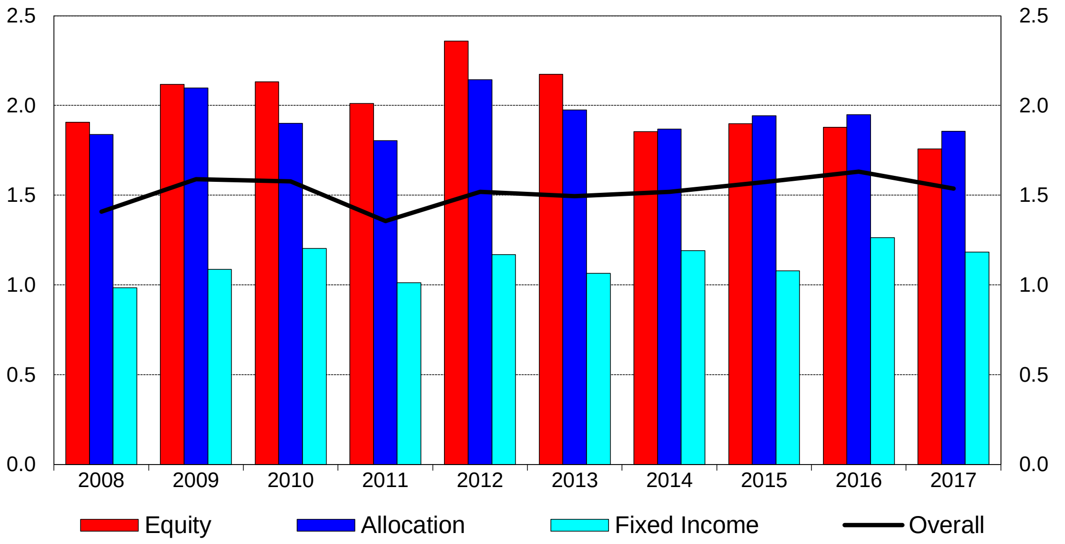
[28] The 2018 Survey on the financial choices of Italian households carried out by Consob (2018) shows that individual investors declaring that they keep track of their financial choices (about 60 per cent) consider information on performance more salient than cost disclosures. According to the results of the 2018 Mutual Fund Shareholder Tracking Survey conducted regularly by the Investment Company Institute (2018), when asked about the information used when choosing a mutual fund, 90 per cent of US fund-owning households say that they review past performances, fees and expenses.

[29] The literature has found that fund returns are correlated with many of the determinants of funds' costs: age, fund and family size, management structure and other characteristics (e.g. Khorana et al., 2005; Gil-Bazo and Ruiz-Verdú, 2009; Lückoff, 2011; Hao and Yan, 2012; Franzoni and Giannetti, 2019). Although the literature focuses mainly on the US mutual fund industry, several authors have studied the fund performance in other countries (e.g. for Italy see Cesari and Panetta, 2002; Bianchi and Miele, 2011. For cross-country analysis see Ferreira et al., 2013).

funds, the novelty of our contribution is to estimate the costs of and returns on foreign investment funds actually held by Italian households. During the period 2008-2017, the TER of the foreign funds held by Italian households increased by about 15 basis points to 1.54 per cent (Figure 3). However, the three main asset classes show different trends. The TER associated with fixed income funds had an upward trend and then in the last two years it stabilized at around 20 basis points higher than the value it had at the end of 2008 (1 per cent). The TER of equity funds initially rose to 2.4 per cent in 2012 and then declined by about 60 basis points to 1.76 per cent in 2017. The incidence of the costs of allocation funds after peaking in 2012 remained quite stable on average (1.86 at the end of 2017); this has been the most expensive category in the households' portfolio since 2014.

Figure 3: **Total Expense Ratio by global broad category**

This figure plots the total expense ratio (percentage points) by Morningstar global broad category over the period 2008-2017 with a yearly frequency. The weighted mean is calculated using the assets under management held by Italian households. The description of variables and their data sources are provided in the Appendix (Table A1).



A study by Morningstar (2016) on the expenses of European investment funds shows that in 2016, the asset-weighted ongoing charge for the European fund universe was 1 per cent, down from 1.09 per cent in 2013. According to the study, the decline was the result of the increasing diffusion of investment funds without commission fees (clean share classes) and of investors' increased preference for less expensive funds. Italy, together with Denmark, Germany and Spain, is an exception; from 2013 to 2016, Italian fund expenses increased to 1.42 per cent.[30] Finiguerra et al. (2018), following the findings by Morningstar (2016) and Albareto et al. (2017), also use the data on the ongoing charges available in the Morningstar database to analyse the costs of all the harmonized investment funds available for sale in Italy from 2014 to 2016. The authors estimate an ongoing charge for all Italian funds of 1.44 per cent in 2016, a ratio similar to that estimated by Morningstar (2016), and higher than that associated with foreign funds traded in Italy (the ratio was 1.20 and 0.93 on average for funds domiciled in Luxembourg and Ireland respectively). The differences are motivated by the prevailing weight of the less expensive institutional classes among the foreign funds.[31] In fact, when the authors limit the comparison to retail classes, they find that the expensiveness of Italian open-end funds is aligned with that of the corresponding foreign funds.

Referring to our estimates presented in Figure 3, we find that in the period 2013-2016 the average weighted TER incurred by Italian households by holding foreign funds experienced an upward trend and that in 2016 it was about 60 basis points higher than the ongoing charge estimated by Morningstar (2016).[32] These differences can be attributed to two factors: the inclusion in the TER of the performance fees that are excluded from the ongoing charge; and the consideration in our analysis of the foreign funds actually included in Italian households' portfolio with the implication that calculating the average weighted TER takes into account the effective portion of the net assets held by households instead of the total net assets under management.

To estimate the aggregated annual performance of the foreign funds held by Italian households, we used the Morningstar monthly net return available at the fund level. First, we estimated the monthly overall average net return of the funds using the assets under management actually held by households in each fund as weights. The annual net return was then obtained by compounding the monthly average net returns.

[30] According to Morningstar, 'Investors in Italian domiciled funds paid more or less the same range of asset weighted ongoing charges within the broad asset classes as in 2013. However, investor preferences changed from cheaper fixed income funds to more expensive allocation funds, increasing the overall asset-weighted ongoing charge'.

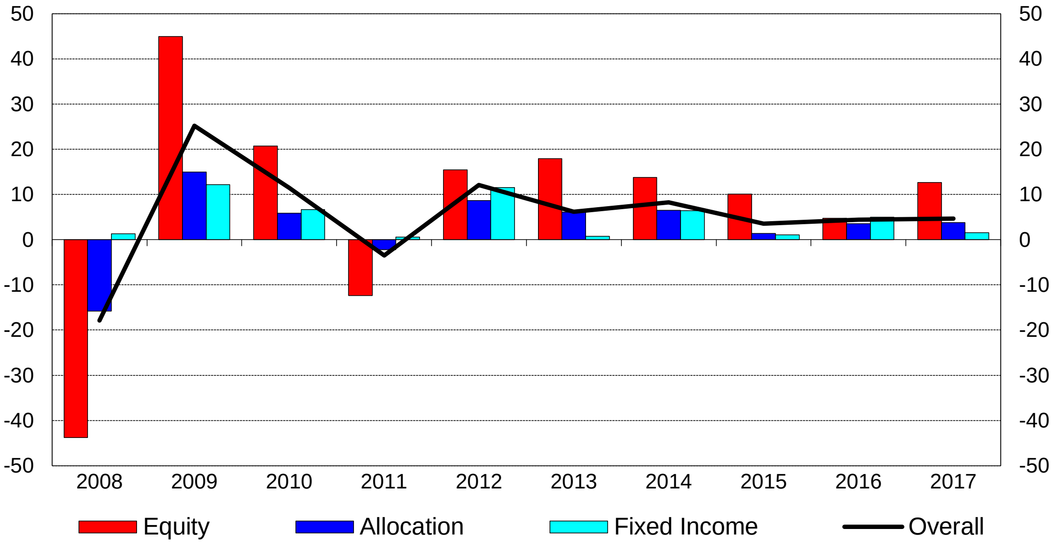
[31] The asset classes available for institutional investors are usually less expensive than classes available for retail investors. The difference can be explained by many factors, in particular by the larger size of the wholesale products and the lower distribution costs.

[32] A difference that holds for both equity (1.9 *vs* 1.3 per cent) and fixed income funds (1.3 *vs* 0.7 per cent).

We find that after the high fund return volatility of the first years of the financial crisis, Italian households have gained an average positive return since 2012, net of all expenses, mainly determined by the good performances of the equity markets (Figure 4). We estimate an average overall net return of 4.6 per cent in 2017, gross of taxes on capital gains and dividends.

Figure 4: **Net return by global broad category**

This figure plots the 12-month net returns (percentage points) by Morningstar global broad category over the period 2010-2017. The weighted mean is calculated using the assets under management held by Italian households. The description of variables and their data sources are provided in the Appendix (Table A1).

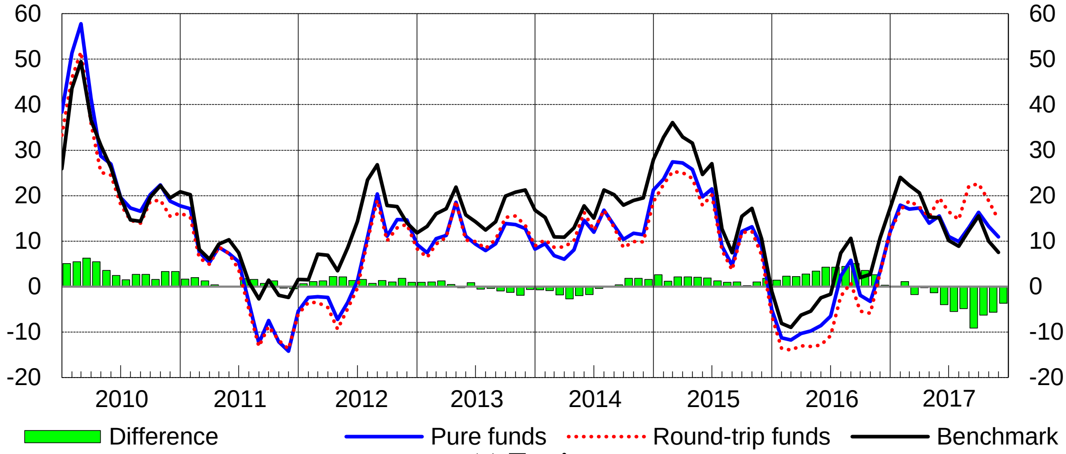


To provide a preliminary evaluation of the reliability of the estimated performances, we selected three market benchmarks representative of the three macro asset classes: *MSCI World NR EUR* for equity funds; *Barclays Euro Aggregate Bond TR EUR* for fixed income funds; and *Cat 50% Barclays Euro Aggregate TR & 50% FTSE World TR* for allocation funds. Figure 5 shows our results. In particular, funds' performances were positively correlated with the corresponding market benchmarks, albeit systematically lower. Our main conclusion is that from 2010 to 2017, foreign funds managed by foreign intermediaries performed better on average than the corresponding round-trip funds; the differences are more pronounced for fixed income funds.

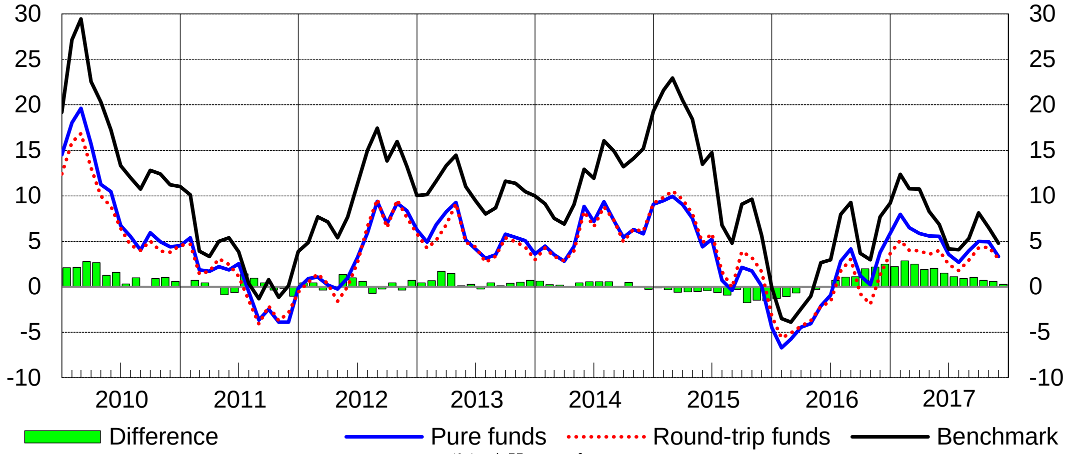
All these results should be considered cautiously, since they are inevitably affected by the high heterogeneity of the funds within the broad category. For this reason, as a robustness check, we replicated the estimates for some micro asset classes, choosing some specific benchmarks: *Europe Large Cap Blend and Global Equity Income* for equity funds; *EUR Corporate Bond and EUR*

Figure 5: **Net Returns by Global Broad Category**

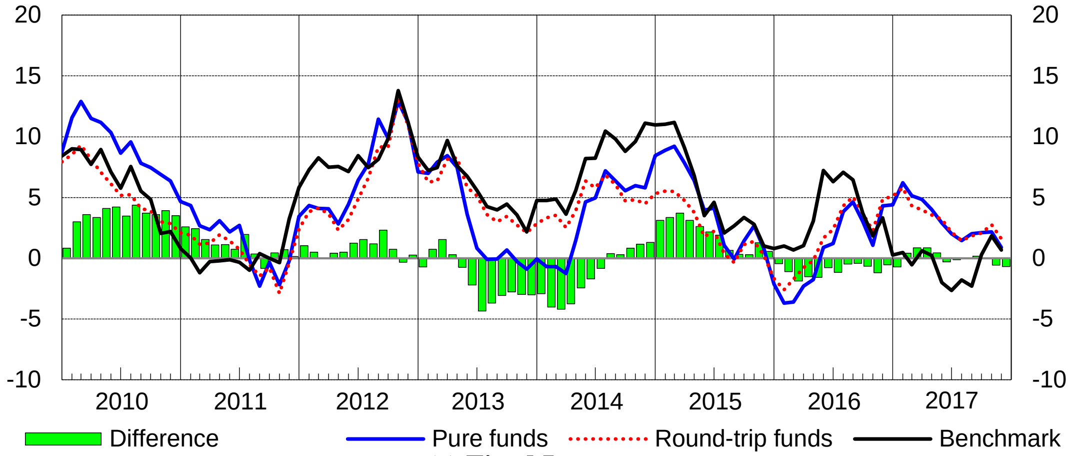
These figures plot the 12-month net returns (percentage points) by Morningstar global broad category over the period 2010-2017. The weighted mean is calculated using the assets under management held by Italian households.The description of variables and their data sources are provided in the Appendix (Table A1). The difference plots the over- or underperformance of pure funds with respect to round-trip funds.



(a) **Equity**



(b) **Allocation**



(c) **Fixed Income**

Diversified Bond Short Term for fixed income funds; and *EUR Cautious Allocation and EUR Moderate Allocation* for allocation funds. Since our findings are substantially similar to those obtained at the macro level, the issue of heterogeneity seems to be less important than expected.

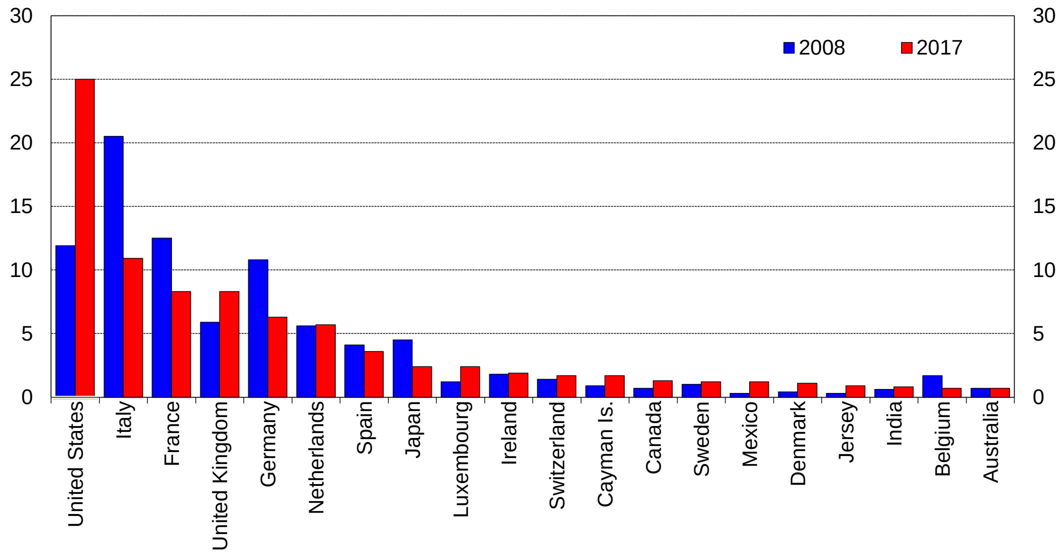
6. The look-through approach

In this section, we provide evidence on the final destination of the portfolio investments carried out by foreign mutual funds on behalf of Italian households in the period 2008-2017. We remove the intermediation veil to describe the composition of indirect household investments from several perspectives, mainly by country, sector and type of instrument.

Country destination. The final geographical destinations of funds' portfolios are the countries where the financial instruments in which asset managers invest are issued. The distribution by country of residence of the issuers of the underlying assets is more heterogeneous than the distribution of funds by country of domicile. In the period 2008-2017, the indirect investments of Italian households through foreign funds were placed in about 150 countries; however, at the end of 2017, the top ten counterpart countries represented about 75 per cent of the total underlying portfolios (Figure 6).

Figure 6: **Top 20 destination countries of Italian households' portfolio investments**

This figure plots the top 20 destination countries of households' indirect portfolio investments at the end of 2008 and 2017. Reported values are measured as percentages.



Three main results emerge from the comparison of the final destination in 2008 and 2017: i) the portfolio re-composition in favour of the United States, whose share increased from 12 to 25 per cent; ii) the prevalence of euro-area countries as the main destination area with an average weight of 47 per cent; and iii) the noteworthy share of Italy (16 per cent on average over the period 2008-2017). In the case of round-trip funds, the portion of investments in Italy is even more significant.

In order to verify if there is a correlation between the destination country and the country of residence of the ultimate owner of the asset management company, we matched the data of Morningstar Direct with the Orbis database. The exercise carried out for the main destination countries in 2017 shows that managing companies tend to allocate their investments mainly in the country of residence of their ultimate parent body, hinting at a kind of home bias (Table 3). For instance, one-third of the €31 billion invested by funds ultimately owned by US entities are placed in the United States. Similar results were found for Italy and France (38 and 12 per cent respectively). On the contrary, investments originating from entities domiciled in the United Kingdom and Germany are less home-biased and mainly placed in the United States.

Table 3: **Destination countries of Italian households' indirect portfolio investments by country of the ultimate owner (December 2017)**

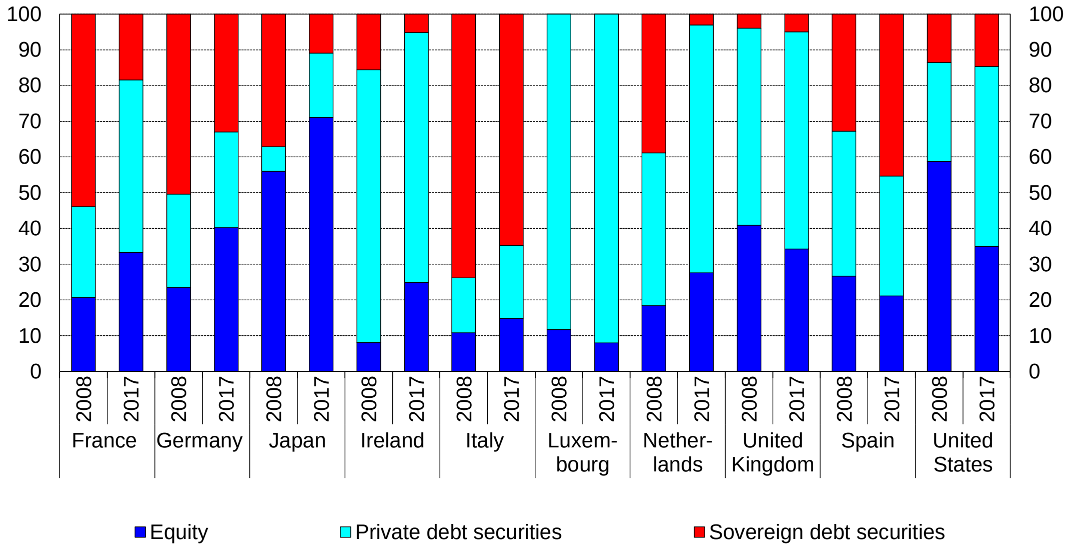
This table reports the destination countries of households' indirect portfolio investments at the end of 2017. Reported values (by country of the funds' ultimate owner) are measured as percentages by row. The total is the amount in millions of euros held by Italian households. The description of variables and their data sources are provided in the Appendix (Table A1).

Country of the funds' ultimate owner	**Destination country**							
	United States	**Italy**	**France**	**United Kingdom**	**Germany**	**Other EU countries**	**Rest of the World**	**Total (€ million)**
United States	34	5	6	8	4	18	24	**30,914**
Italy	15	38	7	5	4	18	14	**15,907**
France	22	9	12	7	6	22	22	**29,479**
United Kingdom	24	3	9	7	15	17	25	**4,493**
Germany	44	6	4	9	5	16	16	**11,195**
Other EU countries	29	3	7	6	5	25	25	**6,324**
Rest of the World	21	10	9	10	7	13	30	**74,135**

Country destination and type of instrument. The underlying assets have been reclassified into three main portfolio categories: listed shares, private debt securities and sovereign debt securities.[33] We have excluded a residual category from our analysis, mainly composed of cash and deposits, because these instruments do not have an ISIN code and so they cannot be allocated by country: at the end of 2017, this component amounted to about €30 billion. At the end of 2017, private and public debt securities represented the most important asset classes held indirectly by Italian households (45 and 23 per cent respectively), followed by equity (32 per cent). From 2008 to 2017, there was a recomposition from sovereign to private debt securities as a consequence of the Eurosystem Public Sector Purchase Programme and the decline of market interest rates. The overall composition for financial instruments is confirmed when we consider the top ten destination countries, though with a few exceptions (Figure 7).

Figure 7: **Top 10 destination countries of Italian households' indirect portfolio investments by asset category**

This figure plots the top 10 destination countries of households' portfolio investments by asset categorys at the end of 2008 and 2017. Reported values are measured as percentages. The description of variables and their data sources are provided in the Appendix (Table A1).



Italy and Spain continue to have, even though with opposite dynamics, a significant weight of sovereign debt securities, coherently with national financial markets dominated by the public sector and characterized by little development in their Stock Exchanges; Japan is the third exception with an equity-based portfolio.

[33]The security-by-security look-through approach has been iterated to make the levels of intermediation beyond the first transparent, due to the fact that mutual funds usually invest in other mutual funds too (i.e. funds of funds).

Country destination, type of instrument and issuing sectors. The identification of the country of final destination and of the broad category of portfolio investments is not sufficient to assess the risks indirectly borne by Italian households. The characteristics of the issuers and of the underlying assets also need to be investigated. Of course, the two domains are closely interconnected. For the former, it is essential at least to know the sector or economic branch to which the issuer belongs; for the latter, no plausible conclusions on the risks can be drawn without taking into consideration the various features of the asset class in the portfolios, for instance the type of securities (plain vanilla or structured; listed or unlisted), the coupon rate (fixed, floating or indexed), and the currency and the maturity (original or residual). The high granularity of the data available makes this thorough multidimensional analysis possible.

Following the evidence provided in Figure 7, we investigated some features of these two domains further: the weight of the main issuing sectors; the concentration of equities and debt securities in portfolios measured by the Herfindahl-Hirschmann Index (HHI) and by the share of top ten securities;[34] and some characteristics of the debt securities.

Starting with the equity portfolio, from 2008 to 2017, Italian households were exposed indirectly to equities issued mainly by non-financial corporations, with a significant increase in France, Germany, Ireland and Japan and a large decline in the UK and the US (Table 4). As regards the equity portfolio concentration, at the end of 2017 it was quite high in Spain, the Netherlands and Italy.[35] We find the opposite for Japan and the US.

In the period 2008-2017, the debt security portfolio prevailed over equities, with the exception of Japan and the US (only in 2008). Our results show an overall reclassification of about 21 percentage points from sovereign and banks' debt securities to bonds issued by non-financial corporations and non-bank financial intermediaries, with some peculiarities: France and the Netherlands are the destination countries where foreign funds switched the most from sovereign to non-financial corporations' bonds. As regards the concentration of the debt securities portfolio, at the end of 2017, Spain was the country with the highest HHI.

[34]The concentration ratio is measured at individual security level as $HHI = \sum_{i=1}^{N} security\ share_i^2$.

[35]In these countries, the top ten equities in the underlying portfolio represented about 60 per cent of all equities purchased in each of these countries.

Table 4: **Top 10 destination countries of Italian households' indirect portfolio investments by asset category and issuing sector**

This table reports the top 10 destination countries of households' portfolio investments by asset category and issuing sector at the end of 2008 and 2017. Reported values are measured as percentages by row. Sectors are divided in non-financial corporations (NFCs), Banks and Other sectors (other financial intermediaries, insurance companies and pension funds). The description of variables and their data sources are provided in the Appendix (Table A1).

Issuing country:	**Equity**				**Debt Securities**					**Total**
	Total	**NFCs**	**Banks**	**Other**	**Total**	**NFCs**	**Banks**	**Other**	**Gen. Gov.**	
					2008					
France	20.8	*16.7*	*2.9*	*1.2*	79.2	*4.5*	*15.9*	*4.9*	*53.9*	100
Germany	23.5	*18.9*	*0.6*	*4.1*	76.5	*1.7*	*23.0*	*1.5*	*50.3*	100
Ireland	8.1	*7.1*	*0.2*	*0.7*	91.9	*0.2*	*29.1*	*47.1*	*15.6*	100
Italy	10.8	*7.6*	*2.4*	*0.8*	89.2	*1.0*	*10.5*	*3.8*	*73.8*	100
Japan	56.1	*47.4*	*1.1*	*7.6*	43.9	*0.7*	*2.8*	*0.8*	*39.6*	100
Luxembourg	11.7	*11.2*	-	*0.5*	88.3	*3.0*	*9.2*	*76.0*	-	100
Netherlands	18.4	*16.9*	-	*1.5*	81.6	*4.3*	*16.1*	*22.4*	*38.8*	100
Spain	26.7	*18.1*	*8.1*	*0.5*	73.3	-	*11.1*	*29.4*	*32.8*	100
United Kingdom	41.0	*36.6*	-	*4.4*	59	*10.2*	*26.4*	*18.5*	*3.9*	100
United States	58.7	*51.8*	*0.2*	*6.7*	41.3	*7.6*	*2.9*	*16.6*	*14.2*	100
Total	27.5	*22.9*	*1.7*	*2.9*	72.5	*3.5*	*13.5*	*11.3*	*44.2*	100
					2017					
France	33.2	*28.0*	*2.8*	*2.5*	66.8	*26.9*	*15.4*	*6.1*	*18.4*	100
Germany	40.2	*34.2*	*0.6*	*5.5*	59.8	*11.9*	*8.6*	*6.3*	*33.0*	100
Ireland	24.9	*22.1*	-	*2.8*	75.1	*16.0*	*13*	*40.9*	*5.2*	100
Italy	14.9	*10.2*	*3.9*	*0.7*	85.1	*9.2*	*9.7*	*1.5*	*64.7*	100
Japan	71.1	*59.9*	*0.5*	*10.8*	28.9	*11.1*	*2.3*	*3.0*	*12.4*	100
Luxembourg	8.0	*7.7*	-	*0.4*	92	*26.8*	*2.4*	*62.6*	*0.1*	100
Netherlands	27.6	*22.6*	-	*4.9*	72.4	*28.9*	*8.4*	*32.1*	*3.0*	100
Spain	21.1	*15.6*	*5.1*	*0.4*	78.9	*8.2*	*19.1*	*6.3*	*45.3*	100
United Kingdom	34.2	*27.7*	-	*6.6*	65.8	*17.4*	*11.8*	*30.9*	*5.6*	100
United States	35.0	*29.1*	*0.1*	*5.8*	65	*27.1*	*1.7*	*21.1*	*15.0*	100
Total	31.0	*25.5*	*1.2*	*4.3*	69	*20.6*	*7.8*	*17.8*	*22.8*	100

Since at the end of 2017 half of the debt security portfolio was made up of fixed-rate debt securities,[36] we computed the residual maturity of the debt security portfolio, which can be used as a proxy of the duration to measure the interest rate risk and the associated losses when the portfolio is composed mainly of fixed-rate bonds. As regards sovereign bonds, the overall residual maturity for Italy, Germany and Spain was noticeably lower than in the other top destination countries (about 5 years for these three countries; 9 years for the remaining countries). For the private debt security portfolio, all destination countries presented a quite similar residual maturity (7 years on average) with the exception of Germany, the UK and the US (9 years).

More detailed conclusions can be drawn by looking at the indirect investments in equities and debt securities through foreign funds broken down by destination areas, type of instruments and issuing sectors (Table 5).

Table 5: **Worldwide destination of Italian households' indirect portfolio investments by asset category and issuing sector**

This table reports the worldwide destination of households' portfolio investments by asset category and issuing sector at the end of 2017. Reported values are measured as percentages. Sectors are divided into financial corporations (FCs: banks, other financial intermediaries, insurance companies and pension funds), non-financial corporations (NFCs) and general government. The description of variables and their data sources are provided in the Appendix (Table A1).

Destination	**Equity**		**Debt Securities**			**Total**	
country:	**FCs**	**NFCs**	**FCs**	**NFCs**	**Gen. Gov.**	**%**	**€ million**
Italy	0.5	1.1	1.2	1.0	7.0	10.9	18,727
Other euro-area countries:	1.6	7.5	9.0	6.3	6.7	31.1	53,692
-of which:							
France	0.4	2.3	1.8	2.2	1.5	8.3	14,298
Germany	0.4	2.2	0.9	0.8	2.1	6.3	10,904
Netherlands	0.3	1.3	2.3	1.7	0.2	5.7	9,861
Spain	0.2	0.6	0.9	0.3	1.6	3.6	6,257
Rest of the world	4.4	16.8	14.6	12.1	10.1	58	100,028
United States	1.5	7.3	5.7	6.8	3.8	25.0	43,154
United Kingdom	0.5	2.3	3.5	1.4	0.5	8.3	14,297
Japan	0.3	1.4	0.1	0.3	0.3	2.4	4,121
Total	6.5	25.4	24.9	19.4	23.8	100	172,447

In 2017, Italian government bonds represented 30 per cent of total sovereign debt securities

[36] A result mainly attributable to bonds issued in Italy and the US.

indirectly held; the US Government was the second foreign public sector of destination. The details confirm the US as the most important foreign destination also according to other breakdowns: indirect investments in bonds and equities issued by US non-financial corporations were higher than those issued by all euro-area countries; the weight of equities issued by US financial corporations was similar to that of the euro area as a whole. The low amount indirectly held in equities issued by Italian financial and non-financial corporations confirms the low representativeness of the Italian Stock Exchange in the portfolios of foreign investors.

Households' direct and indirect portfolio investments: a comparison for 2017. The low incidence of foreign mutual funds in households' financial wealth, equal to €4.4 trillion at the end of 2017, may suggest that the indirect portfolio is not worthy of being investigated. Nevertheless, the role of indirect investments should be more properly assessed through a comparison with the corresponding assets categories held directly.[37]

For this reason, in Table 6 we compare the portfolios held directly and indirectly by Italian households in 2017, broken down by type of instrument, residency and sector of the issuers. The indirect holdings are split into foreign and domestic funds: the latter are based on the estimates provided by Cardillo and Coletta (2018).[38] In the last column, the total amounts directly and indirectly held are also computed as percentages of the total financial assets held by Italian households.

The results show that Italian households in 2017 invested prevalently in debt securities. Government securities were predominant in the domestic component held directly and indirectly, while debt securities issued by financial corporations prevailed in the non-resident components. As regards listed equities, in 2017 the direct component was mainly exposed to domestic issuers, while the indirect component was mostly exposed to non-resident issuers, mainly non-financial corporations. After adding the indirect portfolio, the total debt security and equity portfolio held by Italian households increases by 80 per cent.[39]

[37]Households' total financial assets include components that are absent (insurance products and trade credits) or only partially present (deposits and unquoted shares) in mutual fund assets.

[38]The authors do not reiterate the method, therefore the two categories do not include debt securities and shares in the portfolios of funds of funds.

[39]The portfolio that includes also unlisted and other equities rises by 24 per cent.

Table 6: **Households' direct and indirect portfolio investments at the end of 2017**

This table reports the households' direct and indirect portfolio investments by asset category and issuing sector at the end of 2017. Reported values are measured in percentages by column. The total is the overall amount held by Italian households measured both in millions of euros and as a share of total financial wealth. Sectors are divided into financial corporations (banks, other financial intermediaries, insurance corporations and pension funds), non-financial corporations and general government.

Financial instruments	**Direct**[1]	**Indirect**		**Total**	
		Foreign funds	**Italian funds**[2]	**millions of euros**	**%**
A. Debt securities	**79.2**	**68.0**	**79.7**	**549,400**	**12.6**
Issued by resident sectors	58.0	9.2	41.7	307,992	7.0
General Government	32.9	7.0	31.8	189,672	4.3
Financial Corporations	24.3	1.2	6.2	107,843	2.5
Non-financial Corporations	0.8	1.0	3.7	10,476	0.2
Issued by non-resident sectors	21.1	58.8	38.0	241,408	5.5
General Government	5.6	16.8	15.3	73,803	1.7
Financial Corporations	13.7	23.6	14.7	116,705	2.7
Non-financial Corporations	1.8	18.4	8.1	50,925	1.2
B. Listed Shares	**20.8**	**32.0**	**20.3**	**167,894**	**3.8**
Issued by resident sectors	13.9	1.6	5.3	65,770	1.5
Financial Corporations	4.2	0.5	1.5	19,786	0.5
Non-financial Corporations	9.7	1.1	3.8	45,984	1.1
Issued by non-resident sectors	7.0	30.4	14.9	102,124	2.3
Financial Corporations	0.5	6.1	3.2	17,115	0.4
Non-financial Corporations	6.5	24.3	11.8	85,010	1.9
Total portfolio (A+B)	**100.0**	**100.0**	**100.0**	**717,294**	**16.4**
memo: total portfolio (millions of euros)	*396,890*	*172,447*	*147,957*		

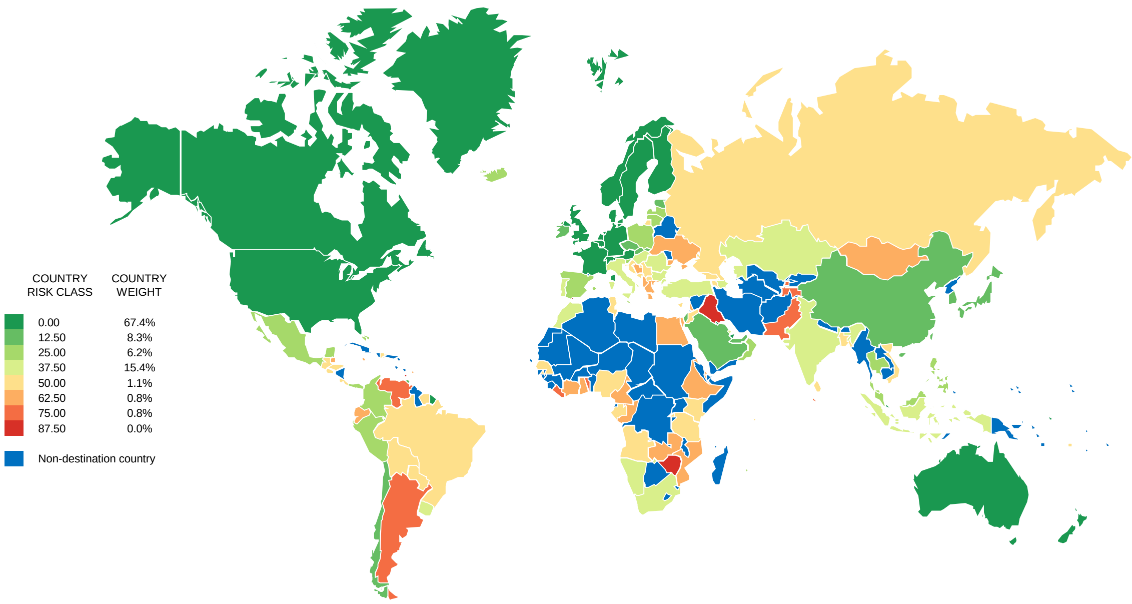
[1] Based on Financial Accounts.
[2] Based on Cardillo and Coletta (2018).

Finally, by combining Table 5 and 6 with further details provided by Cardillo and Coletta (2018) and by the financial accounts, we estimate that at the end of 2017, through domestic and foreign mutual funds, Italian households: i) held €60 billion of Italian government debt securities, equal to about fifty per cent of the amount directly held; ii) invested in debt securities issued by foreign non-financial corporations a multiple of the amount directly held in Italian and foreign non-financial corporations (13 and 6 times respectively); iii) invested in debt securities issued by non-financial corporations resident in France and in the US far more than they invested directly and indirectly in Italian non-financial corporations (€21 billion against €10 billion); and iv) invested in listed shares issued by foreign financial and non-financial corporations more than they invested directly in listed Italian corporations (€74 against €55 billion) and around three times more they held directly in foreign corporations.

Country risk map. Based on the hypothesis that the risk associated with a financial investment in a country may be proxied by the risk connected with a trade relationship, for 2017, we combined the results of our analysis with the information from the Country Risk Map provided by the national agency for export and internationalization (SACE).[40] The outcome of our exercise is a visual representation of the distribution by countries of the risks indirectly incurred by Italian households through foreign funds (Figure 8).

Figure 8: **Country Risk Map at the end of 2017**

This figure plots the geographical distribution of the risks incurred by Italian households at the end of 2017 through foreign mutual funds using the SACE Country Risk Map. The country risk class reports the overall risks incurred by investors divided into 8 sub-classes. Country weight represents, for each country risk class, the overall amount invested (in per cent) by Italian households. The description of variables and their data sources are provided in the Appendix (Table A1).



[40]SACE publishes an annual ranking of the counterpart countries with which Italian companies have trade partnerships ordered by the level of risk. SACE assists Italian companies in the assessment, assumption and management of risks associated with operating in foreign markets. By combining the information of its two interactive maps (Country Risk Map and Export Map) with its analysis, SACE indicates the risks and opportunities for Italian companies in doing business in 189 nations. The risk indicators (Sovereign, Bank and Corporate) range from 0 to 100 and measure the level of the counterpart risk.

To take into account the importance of each destination country, the information on each country risk class was completed with the weight of the corresponding final investments in the portfolios. The main results are the following: over two thirds of the underlying portfolios are invested in very low risk countries (0–12.5 risk class); countries with a very high risk class (over 62.5) capture a negligible share of the investments (about 1 per cent); despite the high geographical dispersion of final investments, numerous countries located in Africa and in the Middle-East are not targeted by asset managers (blue-labelled countries) as they are considered too risky.

7. Conclusions

Italian households have been investing in foreign mutual fund shares for a very long time, although only in a significant way since the second half of the 1990s. Households also continued to place net inflows into these products during the crisis of the Italian mutual fund market in the first decade of 2000s, registering net outflows only at the beginning of the financial crisis. Since 2013, foreign funds have become the most important foreign assets in households' financial wealth and since the beginning of 2017, more important than Italian funds. At the end of 2018, households were the main holding sector of foreign funds traded in Italy.

By making a combined use of very detailed databases, this work has provided a comprehensive description of the foreign funds held by Italian households with a particular focus on the period 2008-2017. The main contribution of the paper has been to disclose the final destination of the savings invested by Italian households through foreign mutual funds, broken down by country, sector and type of instrument.

From 2008 to 2017, foreign funds held by Italian households were essentially made up of open-end harmonized funds and ETFs mainly domiciled in Luxembourg and Ireland. In this period, the weight of foreign funds in Italian households' wealth rose by about four times. This growth was mainly driven by funds controlled by non-domestic intermediaries. Fixed income funds were dominant in household portfolios, even if households began to switch in 2013 towards more flexible products characterized by less cautious risk-return combinations. From 2008 to 2017, households improved the quality of their portfolios by increasing the weight of top-rated funds.

In the same period, the total expense ratio (TER) of foreign funds held by Italian households increased by about 15 basis points to 1.54 per cent. Italian households have gained positive return on average since 2012, net of all expenses, associated with the good performance of the equity markets. We estimated an overall net return for the year 2017 equal to 4.6 per cent. As regards the performance of the most important asset classes (fixed income, equity and allocation), we find that from 2010 to 2017, pure foreign funds performed better than round-trip funds on average, with more pronounced differences for fixed income funds. Moreover, the three asset classes underperformed on average compared with the corresponding market benchmarks.

In the period analysed, the indirect investments of Italian households through foreign funds were placed in about 150 countries; however, at the end of 2017, the top ten counterpart countries represented about 75 per cent of the total underlying portfolios. Euro-area countries prevailed as the main destination area; Italy had a noteworthy share, especially through round-trip funds; there was a recomposition in favour of the United States; the most important managing companies preferred assets issued in the country of residence of the ultimate parent entity. From 2008 to 2017, the overall debt security portfolio prevailed over listed equities. The Eurosystem Public Sector Purchase Programme and the decline of market interest rates contributed to the recomposition of the foreign funds' portfolio from sovereign debt securities to bonds issued by non-financial corporations. Over the same period, Italian households indirectly held equities issued mainly by non-financial corporations.

The comparison between households' indirect investments through domestic and foreign mutual funds and the corresponding asset categories held directly shows that in 2017, Italian households held through mutual funds an amount of Italian government debt securities equal to half the amount held directly; debt securities issued by foreign non-financial corporations held indirectly were a multiple of the amount held directly in domestic and foreign non-financial corporations; and the amount of listed shares issued by foreign financial and non-financial corporations held indirectly was larger than the amount held directly in listed Italian corporations. To conclude, the analysis shows that by investing in foreign funds, Italian households increase the geographical and sectoral diversification of their financial portfolios.

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Appendix A.

Appendix A.1. Market and Morningstar variable definitions

Table A1: **Variable definitions.**

Indicator	Description
Branding Name	A global grouping of asset management companies that represents the management philosophy, the firm's marketing/communication channels, and their distribution/sales efforts.
Denomination Currency	The currency in which the fund reports the net asset value.
Domicile	The country in which the fund is legally organized.
Firm Name	A company which offers mutual funds. Generally speaking, the company name is included in the official fund name.
Global Broad Categories	These are obtained by aggregation of the Morningstar category and are classified into 9 different categories (equity, allocation, fixed income, convertible bond, money market, alternative, commodity, property and miscellaneous). The category description is in Morningstar (2018).
Global Ultimate Owner	A Global Ultimate Owner is the individual or entity at the top of the corporate ownership structure.
ISIN	International Securities Identification Number. This is a unique 12-character international code assigned to a security.
Fund Load	A category of fee paid by investors. A front-end load is a commission applied at the time of the initial purchase of a fund while a back-end load is charged when investors sell mutual fund shares.
Morningstar Category	In an effort to distinguish funds by what they own, as well as by their prospectus objectives and styles, Morningstar developed the Morningstar Categories. While the prospectus objective identifies a fund's investment goals based on the wording in the fund prospectus, the Morningstar Category identifies funds based on their actual investment styles as measured by their underlying portfolio holdings. The category description is in Morningstar (2018).
Net Expense Ratio (annual)	The percentage of fund assets used to pay for operating expenses and management fees, including accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the total expense ratio. The expense ratio for fund of funds only includes the wrap or sponsor fees, and does not include the underlying fund fees. For more details Appendix A.2.
Net Return (monthly)	Expressed in percentage terms, Morningstar's calculation of total return is determined by taking the change in price, reinvesting, if applicable, all income and capital gains distributions during the period, and dividing by the starting price. Unless otherwise noted, Morningstar does not adjust total returns for sales charges (such as front-end loads, deferred loads, and redemption fees). Total returns do account for the expense ratio, which includes management, administrative, distribution fees, and other costs that are taken out of assets.
Ongoing charge	This indicator was introduced in the Key investor information document (Kiid) disciplined by the UCTIS IV directive and it has been applicable since July 2011; it has replaced the Total Expense Ratio. Ongoing charge includes all professional fees, management fees, audit fees and custody fees. The most significant difference between total expense ratio and ongoing charge is that the performance fees are included in the total expense ratio but not in the ongoing charge.
Rating (monthly)	Morningstar provides two different types of rating: star rating (quantitative) and analyst rating (qualitative). For more details see Appendix A.3.

Appendix A.2. Mutual fund fees

The expenses paid by the investors are of three different types:

- Custodian fees, the fees paid to the bank which acts as custodian of the fund's assets and which takes care of all the operations related to the fund's portfolio.
- Management fees, the fees paid every year to the AMC as a percentage of the fund's Net Asset Value (NAV). This item includes incentive fees, i.e. the extra fees that some of the funds pay to the management company if the return of the fund's portfolio exceeds a given benchmark.
- Trading fees, includes stamp duty, bid-ask spreads and brokerage fees. The first component is included in the fund's annual report (the item 'other expenses'), while the others are considered as a capital item and included in securities prices (thus influencing performance directly), so that they cannot be isolated.

The four basic types of fees or expenses associated with mutual funds are the following:

- Front-end and back-end loads can be fixed or a percentage (constant or decreasing). Front-end loads tend to decrease as the capital is put into the fund, back-end loads instead can decrease, especially according to the length of adherence to the fund.
- Ongoing services paid by a fund company to brokers and salespersons for personal assistance to the clients, which is mainly investment advice.
- Ongoing management and administrative costs. These include the costs of the management of the fund together with those for the custodian and the transfer agent.
- Costs associated with the trading of the securities in the portfolio.

Appendix A.3. Morningstar rating

Morningstar's mutual fund rating service is probably the most influential fund rating system worldwide and is based on a quantitative and qualitative assessment.

The quantitative rating is based on its historical performance with respect to both return and risk relative to its peer group. Specifically, every month Morningstar uses 36 months of load adjusted returns to compute a three-year risk-adjusted rating for each fund. Stars are assigned monthly to funds in every category so that funds with risk adjusted ratings in the top 10 per cent of their peer group are assigned five stars, the next 22.5 per cent receive four stars, the next 35 per cent receive three stars, the next 22.5 per cent receive two stars and the bottom 10 per cent of funds in each peer group receive one star.

The qualitative rating is released by Morningstar on the basis of the five-tier judgments. It is composed of three positive grades (Gold, Silver and Bronze), a Neutral grade and a Negative grade, and it is based on the analysts' belief in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over the long term. Let us describe the features of each level of the qualitative rating:

- Gold, the best-of-breed fund that distinguishes itself across the five pillars and gained the analyst's higher level of conviction.
- Silver, assigned to a fund whose advantages outweigh the disadvantages across the five pillars and gained a sufficient level of analyst conviction to be granted a positive rating.
- Bronze, for a fund that has advantages across several, but not all, pillars, and the strengths of the fund make it reasonably convincing for the analyst.
- Neutral, assigned to a fund that does not deliver exceptional returns but is not likely to significantly underperform, according to analysts.
- Negative, for a fund that has at least one flaw that is likely to significantly hinder a good performance and is considered to be an inferior opportunity with respect to its peers.