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Looking through cross-border positions in investment funds: evidence from Italy

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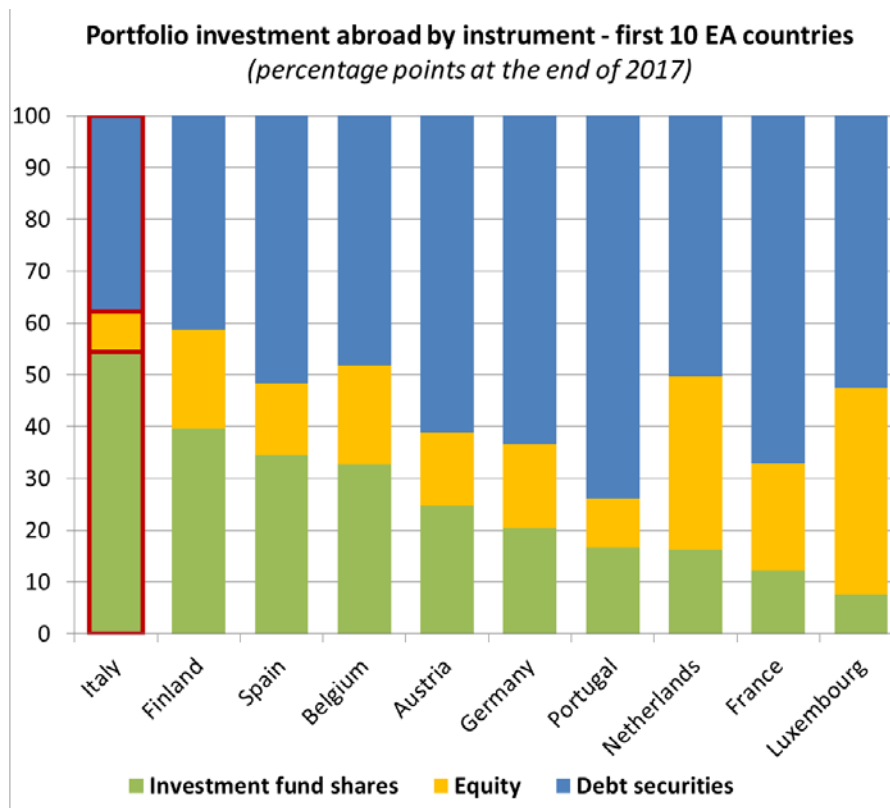
Introduction

- Total net assets of worldwide regulated funds have more than doubled in the past 10 years (to \$49 trillion at year-end 2017 according to the *IIFA*)
- Growth of foreign investment funds might affect external statistics (Felettigh and Monti, 2008)
- Italy as an extreme case: foreign investment fund shares (almost 800 EUR billion at end-2017) account for almost 30 % of the country's IIP assets (in most EU countries between 5-10%)
- Issues
 - What is the actual asset class exposure (bond vs equity) of the country's portfolio investment abroad?
 - What is its geographical exposure? Investment fund domicile \neq ultimate destination



The veil of foreign investment funds

1) What is the actual asset class exposure (bond vs equity) in portfolio investment abroad?



Source: ECB

2) What is the geographical exposure? investment fund domicile ≠ ultimate destination

Italian portfolio investment abroad - country composition at end of 2016

country	%
Luxembourg	40.5
France	11.6
Ireland	8.2
United States	7.8
Germany	5.9
Spain	5.9
United Kingdom	5.0
Netherlands	4.0
International org.	2.6
Belgium	0.8
Others	7.8
	100.0

Source: Banca d'Italia



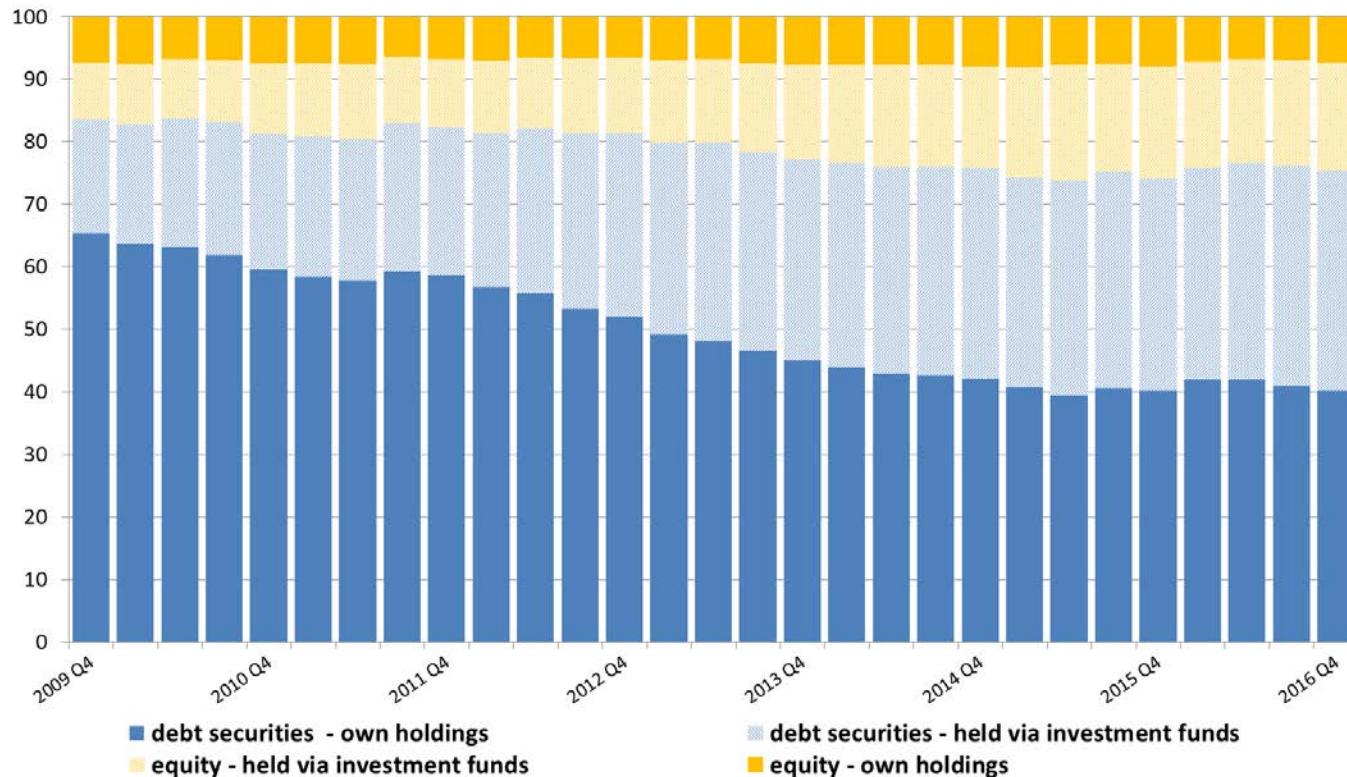
“Looking through” foreign investment funds

- For economic analysis purposes, need to correct the distortions arising from these positions
- Data availability is an issue: compilers typically do not know foreign funds portfolios
- Our approach (Della Corte, Federico and Felettigh, 2018) relies on a combination of sources to derive an approximation of foreign investment funds allocation:
 1. as for the composition by financial instrument: data from the Italian Association of investment management companies
 2. as for the geographical diversification: data from partner countries and CPIS (IMF)
- *Macro* approach: based on publicly available aggregate data, so we are making some stringent assumptions



Asset class exposure

- Without adjustments, the debt (equity) share in foreign portfolio assets stood at **40%** (7%) at the end of 2016; the overall share rises to **75%** (25%) after the adjustment
- The debt share remains in a maximum interval of +/-7 points around this value as we relax our assumptions



Sources: calculations based on Banca d'Italia IIP data and Assogestioni and ECB data.



The “ultimate” geographical exposure

- Main (strong) assumption: geographical allocation of Italian-owned foreign funds equal to that of the entire fund industries in Luxembourg, Ireland and France (over 95% of these funds are domiciled in these three countries)
- USA becomes the first destination of Italian portfolio investment
- Shares of the other main EU partners also increase
- Overall, geographical diversification rises

ranking	Total portfolio unadjusted		Total portfolio (adjusted)	
	country	%	country	%
1	Luxembourg	40.5	United States	20.7
2	France	11.6	France	12.2
3	Ireland	8.2	Germany	9.2
4	United States	7.8	United Kingdom	8.3
5	Germany	5.9	Spain	7.3
6	Spain	5.9	Netherlands	6.7
7	United Kingdom	5.0	Luxembourg	3.8
8	Netherlands	4.0	Italy (<i>round trip</i>)	2.9
9	International org.	2.6	International org.	2.8
10	Belgium	0.8	Ireland	2.0
others	-	7.8	-	24.0
		100.0		100.0

Sources: calculations based on Banca d'Italia IIP data and ECB, IMF, Banque Centrale du Luxembourg and Central Bank of Ireland data.



Conclusions

- Growing importance of foreign investment funds might affect external statistics
- Italy as an example
 - Foreign investment fund shares account for almost 30 per cent of the country's IIP assets
 - Disproportionate weight of financial centres among the country's portfolio investment destinations
- After the “looking through” exercise:
 - the share of debt securities in the country's external portfolio significantly rises
 - the shares of the United States and our main euro-area partners as destination countries increase too
- *Caveat*: our approach relies on strong assumptions and “macro” data
→ **Data needs**: micro data (i.e. fund-level data on portfolio allocation)



Data needs: advantages to collect fund level data

Accuracy:

- Large heterogeneity among investment funds (Hau and Rey, 2008)
- Different funds reach different clienteles (Anderson *et al.*, 2011)
- assumption of investing in the average fund likely violated

Much richer insights for economic analysis:

- e.g. what is the risk profile of funds held by the household sector ?
- what the implied vulnerabilities to specific market scenarios (e.g. rise in yields)?

Micro-approach adopted by new research in progress at Banca d'Italia:

- Coletta M. and Santioni R. (2018) rely on fund-level data to assess the exposure and returns of Italian households via foreign funds
- Della Corte and Santioni are working on extensions to other euro-area countries



References

- Anderson Christopher W, Mark Fedenia, Mark Hirschey and Hilla Skiba (2011), “Cultural influences on home bias and international diversification by institutional investors”, *Journal of Banking & Finance*, Vol 35, Issue 4, pp 916-934.
- Coletta Massimo and Raffaele Santioni (2018), *Mimeo*.
- Della Corte Valerio, Stefano Federico and Alberto Felettigh (2018), “Looking through cross-border positions in investment funds: evidence from Italy”, *Occasional Papers*, no. 439, Banca d'Italia
- Felettigh Alberto and Paola Monti (2008), “How to interpret the CPIS data on the distribution of foreign portfolio assets in the presence of sizeable cross-boder positions in mutual funds. Evidence for Italy and main euro-area countries”, *Occasional Papers*, no. 16, Banca d'Italia
- Hau Harald and Hélène Rey (2008), “Home Bias at the Fund Level”, *American Economic Review*, 98 (2):333-38



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Back-ground slides

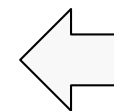


Financial instrument composition of foreign investment funds

Assogestioni's classification of foreign funds into about 40 categories according to their investment policy enables us to estimate a range for the composition by financial instrument (equity vs debt securities)

Macro-category/category	restrictions on the equity allocation (Assogestioni)		equity allocation assumed in the adjustment by instrument of the positions in mutual funds		
	min	max	baseline	min	max
Money-market/liquidity (<i>all categories</i>)	0	0	0	0	0
Bond					
- <i>mixed</i>	0	20	10	0	20
- <i>all others</i>	0	0	0	0	0
Balanced					
- <i>bond</i>	10	50	30	10	50
- <i>no indication</i>	30	70	50	30	70
- <i>equity</i>	50	90	70	50	90
Flexible	0	100	40 (*)	20 (*)	46 (*)
Equity (<i>all categories</i>)	70	100	85	70	100
All funds as a whole					
2009 Q4 - 2016 Q4 (average)	21	47	32	25	38
At the end of 2016	20	50	33	25	40

Sources: Assogestioni and, for flexible allocation funds, calculations based on ECB data (Investment Funds statistics).





The “ultimate” geographical exposure (by instrument)

Equity				
ranking	country (unadjusted)	%	country (adjusted)	%
1	United States	25.9	United States	25.9
2	France	14.5	France	10.8
3	Germany	13.3	Germany	9.3
4	United Kingdom	10.8	United Kingdom	8.5
5	Netherlands	8.5	Japan	5.2
6	Switzerland	6.2	Netherlands	5.1
7	Spain	3.4	Switzerland	4.4
8	Japan	3.1	Luxembourg	2.9
9	Luxembourg	1.4	Spain	2.3
10	Belgium	1.2	Cayman Islands	2.1
others	-	11.8	-	23.5
<i>memorandum item: share on total portfolio investment</i>		7.3		24.6

Debt Securities				
	country (unadjusted)	%	country (adjusted)	%
1	France	15.3	United States	19.0
2	Spain	14.0	France	12.7
3	United States	13.8	Germany	9.1
4	Germany	11.3	Spain	8.9
5	Netherlands	8.4	United Kingdom	8.2
6	United Kingdom	7.2	Netherlands	7.3
7	International org. (1)	6.2	Luxembourg	4.1
8	Luxembourg	4.4	International org.	3.7
9	Ireland	2.7	Italy (<i>round-trip</i>)	3.4
10	Belgium	1.8	Ireland	2.2
others	-	14.9	-	21.4
<i>memorandum item: share on total portfolio investment</i>		40.3		75.4

