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EFFECTS OF BANS ON INDUCEMENTS REVISITED

Private households did not achieve higher portfolio returns due to inducement bans – but invested less money in funds

The performance of private investment portfolios in the Netherlands and the UK has not increased as a response to the bans on inducements, a regression analysis using data from the European Central Bank (ECB) and the UK's Office for National Statistics (ONS) suggests. Following the bans' introduction in 2014 and 2013, respectively, quarterly portfolio returns of private households increased only marginally by an estimated 0.04 percent. This increase is neither economically nor statistically significant and very robust against changes in our model's specification. Moreover, a second model shows that in cases with a ban on inducements, private households have reduced savings in funds. The statistically significant difference in quarterly net investment amounts to EUR 84 per capita.

Our results indicate that – contrary to claims by critics of commission-based advice – neither did retail investors benefit from a ban financially nor did net inflows into funds increase due to lower fund cost and/or "better" investment advice. Our finding has severe policy implications, as it challenges key arguments put forward by the European Commission in their recent retail investment strategy (RIS) proposal. After all, plans for a full or partial ban on inducements rest on the notion that returns are impeded by "high levels of costs" and an unsatisfying "quality of investment products" and a ban would hence "contribute to improving net investment performance". If this is not the case, the relationship between costs and benefits of the discussed ban changes drastically. Also, a key goal of the Commission's Capital Markets Union (CMU) program is to increase retail participation in capital markets. However, according to our findings for funds (including exchange-traded funds), bans – not commission-based advice – act as a detriment to private investor participation.
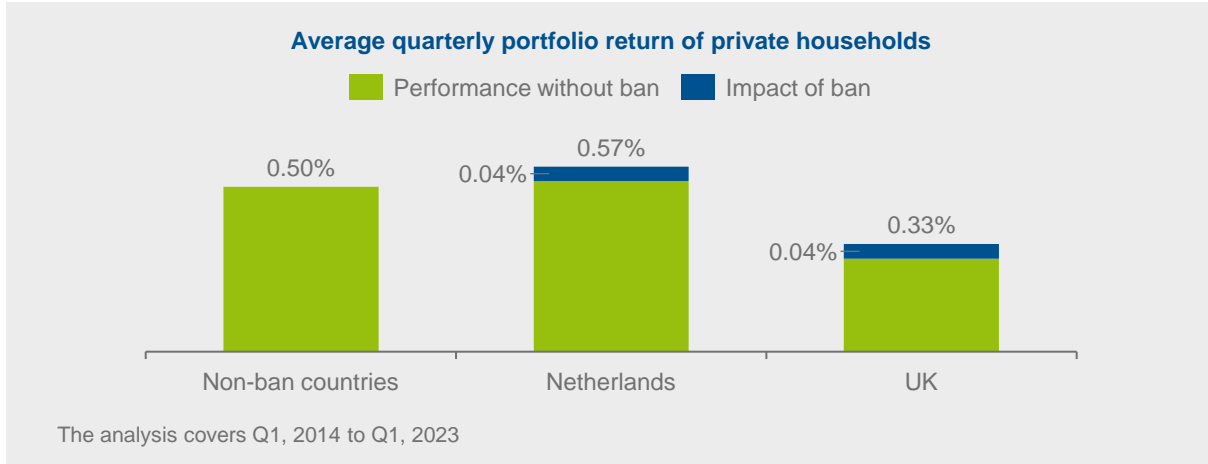
Inducement bans have no effect on portfolio returns

In our first regression analysis, we consider stocks and transactions in privately held portfolios[1] for 13 Western European[2] countries in the 1999-2023 period. We first estimate average quarterly investment returns (see annex for details) and then isolate the effect of inducement bans. The chart below shows how Dutch and UK households' returns were impacted – and how they compare to the average of the non-ban countries. For illustration

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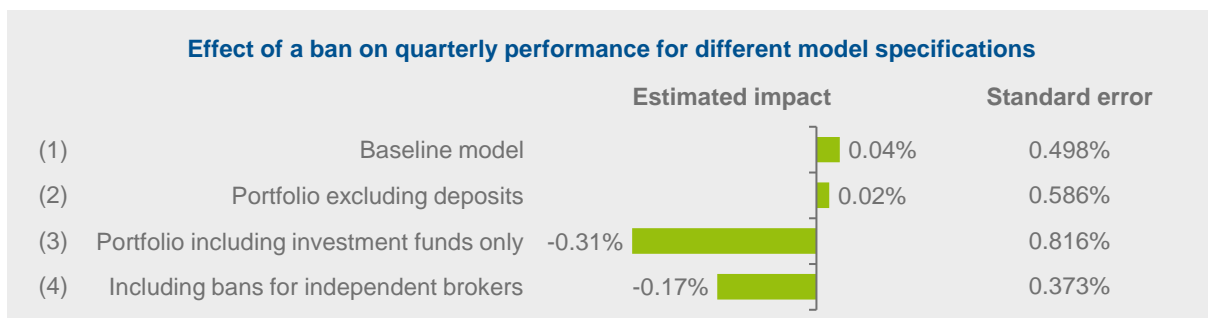1 We consider deposits, debt securities, shares, investment funds as well as insurance and pension contracts
2 Austria, Belgium, Denmark (from 2013), Finland, France, Germany, Ireland (from 2016), Italy, Luxembourg (from 2003), the Netherlands, Portugal, Spain, and UK

Average quarterly portfolio return of private households

■ Performance without ban　■ Impact of ban

The analysis covers Q1, 2014 to Q1, 2023

purposes, we depict average returns since 2014 (when inducement bans were in place in both countries) and highlight the estimated impact of banning inducements[3]. In countries without a ban, private households achieved a performance of 0.50 percent per quarter. Dutch investors managed to realise slightly higher returns (0.57 percent); of this, only about 0.04 percentage points may be attributed to the ban, the remainder was due to other, country-specific factors. UK households suffered from significantly lower portfolio returns (0.33 percent). One key determinant for overall lower investment performance may have been economic uncertainty associated with Brexit. This comparison already shows that the majority of variance in portfolio returns is explained by factors that are not attributable to bans on inducements. Statistically speaking, we cannot even rule out that the estimated value is zero (based on conventional confidence levels).

The method applied distinguishes itself from most other contributions on this topic as it separates the effect of a ban from other variables impacting portfolio returns. We have controlled for both country-specific aspects – such as differences in the financial system, attitudes towards risk and investing, etc. – as well as time-specific factors, most notably quarterly market returns. Formally, we included so-called country-fixed effects and time-fixed effects in our regression model. This contrasts with the approach taken by the European Commission in its impact assessment. There, cross-country analyses with control variables are hardly used. It must remain unclear whether observed developments can be attributed to the ban or are caused by other factors.

We have also tested different model specifications to confirm robustness of our result. They all support our finding. We have first calculated the effect of an inducement ban excluding deposits from the portfolio (Row 2). This helps to abstract from the diluting factor of bank deposits as well as changes in household's risk appetite. Another alternative specification looks at investment funds only (Row 3). The effect of inducement bans should be particularly pronounced for funds, as distribution occurs comparatively often via commission-based advice. Finally, we have included the Finnish and Danish bans for independent brokers that entered into force in 2005 and 2017, respectively (Row 4). Interestingly, none of these changes alters the essence of our result. The effect on portfolio

Effect of a ban on quarterly performance for different model specifications

		Estimated impact	Standard error
(1)	Baseline model	0.04%	0.498%
(2)	Portfolio excluding deposits	0.02%	0.586%
(3)	Portfolio including investment funds only	-0.31%	0.816%
(4)	Including bans for independent brokers	-0.17%	0.373%

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3 Note that this is an – albeit thoroughly calculated – estimate only, and that there is some uncertainty in the data (see annex).

returns ranges from -0.31 to +0.02 percent. However, no coefficient is statistically significantly different from zero at the conventional confidence levels.
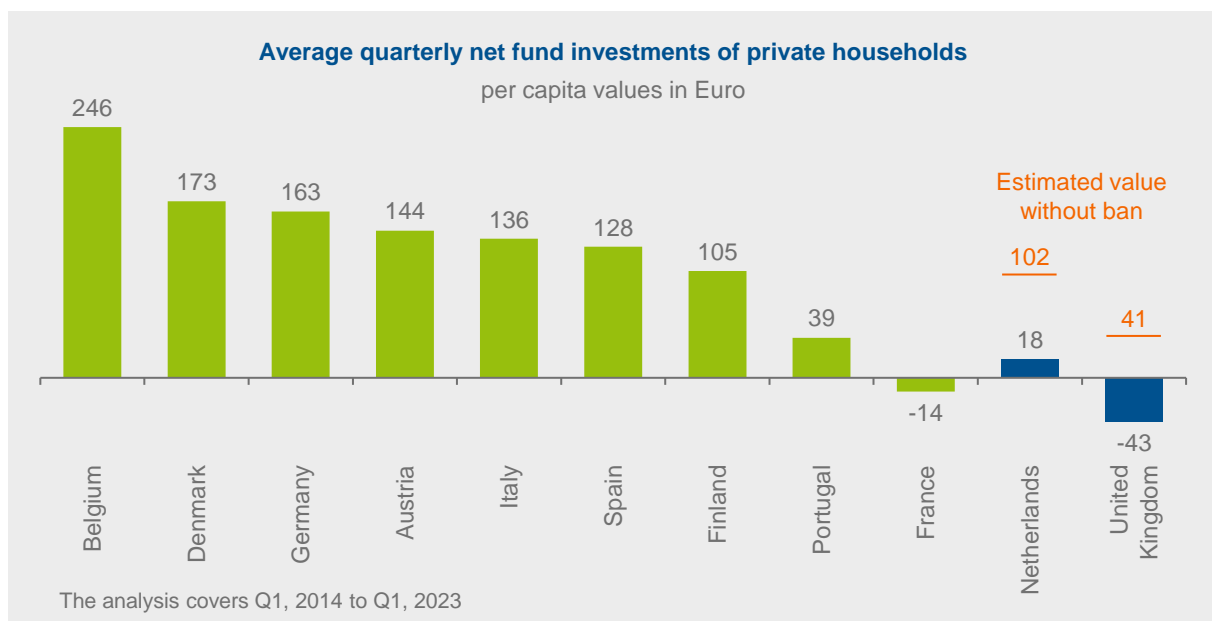
As a result, we believe it is very unlikely that a ban on inducements in Europe would improve retail investor's portfolio returns. This is quite striking as investment products that do not include distribution cost will undoubtedly yield higher returns on average. There are several possible, and partially connected, explanations for the phenomenon of unchanged performance: (1) The distribution cost is not reduced under a ban, but only paid separately, (2) the investment options chosen before were not "underperforming or excessively risky", as claimed by the European Commission in their impact assessment, and (3) there are changes in the composition of household financial assets that offset any gains from lower-cost options. This could be due to an "advice gap", i.e., a reduction in capital-market participation of retail investors because they are unwilling to pay up-front for advice and do not want to engage in self-directed investments either.

Reduction in household's net fund investments following the introduction of bans

To perform a first tentative test on whether there are changes in the portfolio composition, we analyse savings in investment funds. After all, if high inducements were to act as a detriment to investor willingness to invest and trust in financial advice, retail investment in funds should increase as a result of prohibiting inducements. We have therefore tested how quarterly net inflows of private households into investment funds have changed due to the bans in the Netherlands and the UK. Again, we consider quarterly data for 1999-2023 and include country- and time-fixed effects as control variables in our model to isolate the effect of inducement bans. In order to make cross-country comparisons more intuitive, all net investments are reported as per capita values for the population aged 15 and above.

We indeed find a change in private investor behaviour. However, contrary to the European Commission's hypothesis, countries without commission-based advice experience lower net fund investments to the magnitude of EUR 84 per capita. The difference in household's behaviour is sufficiently pronounced to conclude that bans have a significant negative effect, i.e., that the result is not due to chance.

The chart below reports average net fund investments per capita across the countries in our sample for the 2014-2023 period. As a result of the ban, an average Dutch investor has only bought fund shares for EUR 18 per

Average quarterly net fund investments of private households
per capita values in Euro

Estimated value without ban

The analysis covers Q1, 2014 to Q1, 2023

quarter. In the UK, private households have even sold funds to the extent of EUR 43. In our sample of non-ban countries, net fund investments were far higher: In Germany, Austria and Italy, for instance, they amounted to approximately EUR 150 per quarter. In Belgium, per capita investments even reached EUR 246. That being said, even without the ban, fund purchases of retail investors would have been only moderate in the Netherlands and the UK due to (other) country-specific factors – but capital market participation would at least have been at the levels common in countries like Finland and Portugal.

The linear regression for fund flows hence suggests indicatively that potential gains from lower fund cost may be offset by a switch to lower-yielding investment options. It also casts doubt on the European Commission's notions that investor participation would increase due to a ban on inducements as (1) "improving the quality of advice […] could contribute to unblocking reluctance of some households that are concerned about risks" and (2) "availability of more cost-efficient products […] could convince some of those households that refrained from investment because of too low returns". In our view, the data suggests that a ban would rather deter more investors from fund investments (and possibly other capital market oriented products).

Annex: Definitions and models

Countries in sample and bans on inducements

Our analysis covers 13 Western European countries in the 1999-2023 period. The two European fund hubs (Ireland and Luxembourg) were excluded from the anaylsis of a ban's effect on net fund investments. The unusually high fluctuations in net sales in these two countries are likely to be caused by other effects than actual retail business. We considered the commission bans in the Netherlands (effective Q1, 2014) and the UK (effective Q1, 2013). In some of our alternative specifications, we also include the Finnish and Danish bans for independent brokers that entered into force in 2005 and 2017, respectively.

Sample composition over time

■ without ban　■ with ban　■ ban depending on specification

	1999	...	2023
Austria		without ban	
Belgium		without ban	
Denmark			
Finland			
France		without ban	
Germany		without ban	
Ireland*			
Italy		without ban	
Luxembourg*		without ban	
Netherlands			with ban
Portugal		without ban	
Spain		without ban	
UK			with ban

* Excluded for net fund investments specification
Source: Office for National Statistics for UK, otherwise European Central Bank and Eurostat
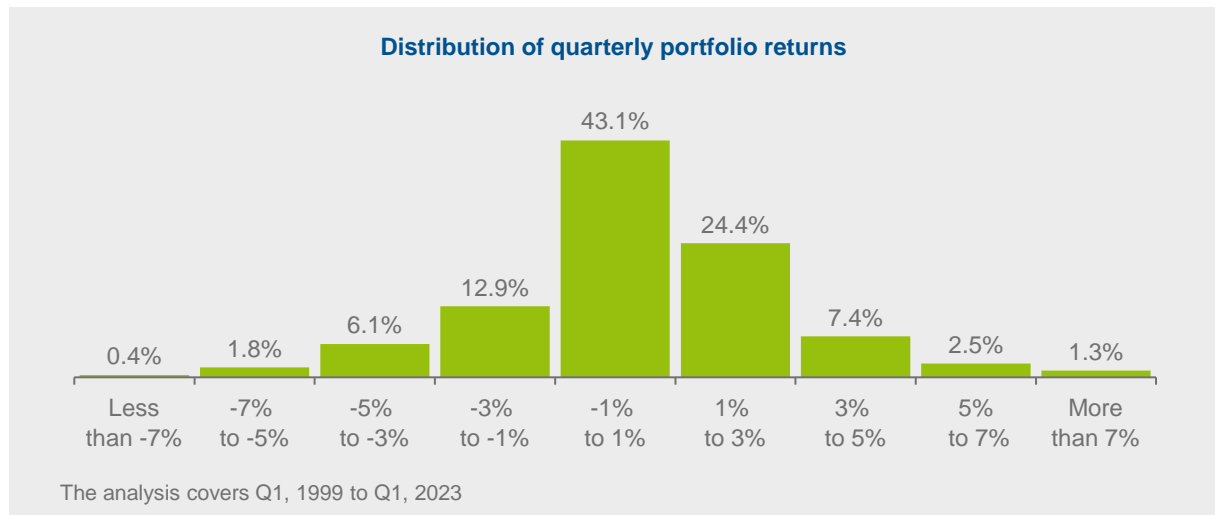
Financial assets

We consider financial assets of private households and non-profit institutions serving households (NPISH, e.g., sports clubs and charities). Our baseline portfolio considered comprises the following assets: deposits (excluding currency), debt securities (e.g., bonds), equity, investment fund shares, as well as insurance and pension contracts. All data stem from the ECB and ONS, respectively. Financial data are denoted in EUR; if necessary, local currency data was converted using end-of-period ECB reference exchange rates.

Portfolio return

We define portfolio return as the percentage change in financial assets over each quarter which is not explained by net financial transactions, i.e., selling or buying instruments. We assume flows occur at quarter-end:

$$\text{Return}_{\text{Quarter}} = \ln\left(\frac{\text{Financial assets}_{\text{Quarter}} - \text{Financial transactions}_{\text{Quarter}}}{\text{Financial assets}_{\text{Quarter-1}}}\right)$$

where Quarter describes the period. An example: For the fourth quarter 2022, we consider the assets as of 31 December 2022 and substract net transactions over the quarter. The resulting figure is then divided by assets held at 30 September 2022. The distribution of quarterly returns across our sample reflects the conservative investment approach of European households: More than 80 percent of returns were between -3 percent and +3 percent:

Distribution of quarterly portfolio returns

Less than -7%	-7% to -5%	-5% to -3%	-3% to -1%	-1% to 1%	1% to 3%	3% to 5%	5% to 7%	More than 7%
0.4%	1.8%	6.1%	12.9%	43.1%	24.4%	7.4%	2.5%	1.3%

The analysis covers Q1, 1999 to Q1, 2023

Net fund investments

For quarterly investments of private households (and NPISH) in investment funds, we calculate per capita values based on the population aged 15 and above. For all countries except the UK, we use quarterly Eurostat data. In less than 5 percent, we interpolated missing quarterly values. For the UK, we take the annual ONS population estimate and interpolate to arrive at quarterly level (assuming a linear population growth). Moreover, we apply growth rates according to the official population projection to estimate data for Q1, 2022 to Q1, 2023 (as no ONS estimates were available). The formula for net fund investments is:

$$\text{Net fund investments per capita}_{\text{Quarter}} = \frac{\text{Net fund investments}_{\text{Quarter}}}{\text{Estimated population aged 15 and above}_{\text{Quarter}}}$$

Our models

For testing the impact of inducement bans on portfolio returns and net fund investments, we use linear regression models (ordinary least squares). We test how quarterly returns and retail fund net flows are driven by three sets of explanatory variables:

- Country-fixed effects: We allow the averages for countries to differ due to specific (but time-invariant "fixed") qualities. This includes the respective economic/political setup as well as the population's attitudes towards investing. One notable example are differences in the pension system.
- Time-fixed effects: As investment returns across Europe are strongly affected by similar economic and financial market developments (e.g., rising share prices), we also include variables covering uniform time effects across all countries.
- The inducement ban (if present).

Econometrically speaking, our linear regressions therefore have the following specification:

$$\text{Portfolio return}_{\text{Country,Quarter}} = \alpha_{\text{Country}} + \beta_{\text{Quarter}} + \gamma \cdot \text{Ban}_{\text{Country, Quarter}} + \varepsilon_{\text{Country, Quarter}}$$

$$\text{Net fund investments per capita}_{\text{Country,Quarter}} = \alpha_{\text{Country}} + \beta_{\text{Quarter}} + \gamma \cdot \text{Ban}_{\text{Country, Quarter}} + \varepsilon_{\text{Country, Quarter}}$$

The regression approach tries to minimise the unexplained residual (ε). It yields the estimated impact (coefficient) for all variables. The effect of a ban on inducements equals a performance increase by 0.04 percent and a reduction in per capita fund flows by EUR 84, respectively. We have performed tests with alternative specifications, also including additional control variables. The table below reports detailed results for the most important specifications. Cases where the result is statistically significantly different from zero are denoted with asterisks.

	Return (in percent)				**Net fund investments** (in EUR per capita)	
Impact of ban (Standard error)	+0.045 (0.498)	+0.022 (0.586)	-0.314 (0.816)	-0.169 (0.373)	-84.02*** (22.58)	-53.43** (20.87)
Portfolio composition	Deposits included	Deposits excluded	Fund Shares only	Deposits included	Fund Shares only	Fund Shares only
Countries with ban	NL, UK	NL, UK	NL, UK	NL, UK, FI, DK	NL, UK	NL, UK, FI, DK
Observations	1,115	1,115	1,115	1,115	1,005	1,005
Adjusted R²	0.444	0.479	0.292	0.444	0.359	0.356

Notes: Heteroskedasticity-robust standard errors; * p-value<0.1, ** p-value<0.05, *** p-value<0.01

Disclaimer

This paper represents research in progress. We are very grateful for any comments or suggestions for improvements. To facilitate further research on this important matter for the future of retail distribution of financial products in Europe, all data, methods, and code used are available upon request.

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