



CIRANO
Allier savoir et décision

2016s-35

**The Gamma Factor and the Value of
Financial Advice**

Claude Montmarquette, Nathalie Viennot-Briot

Série Scientifique/Scientific Series

2016s-35

The Gamma Factor and the Value of Financial Advice

Claude Montmarquette, Nathalie Viennot-Briot

Série Scientifique
Scientific Series

Montréal
Août/August 2016

© 2016 *Claude Montmarquette, Nathalie Viennot-Briot*. Tous droits réservés. *All rights reserved*. Reproduction partielle permise avec citation du document source, incluant la notice ©.
Short sections may be quoted without explicit permission, if full credit, including © notice, is given to the source.



Centre interuniversitaire de recherche en analyse des organisations

CIRANO

Le CIRANO est un organisme sans but lucratif constitué en vertu de la Loi des compagnies du Québec. Le financement de son infrastructure et de ses activités de recherche provient des cotisations de ses organisations-membres, d'une subvention d'infrastructure du ministère de l'Économie, de l'Innovation et des Exportations, de même que des subventions et mandats obtenus par ses équipes de recherche.

CIRANO is a private non-profit organization incorporated under the Quebec Companies Act. Its infrastructure and research activities are funded through fees paid by member organizations, an infrastructure grant from the ministère de l'Économie, de l'Innovation et des Exportations, and grants and research mandates obtained by its research teams.

Les partenaires du CIRANO

Partenaires corporatifs

Autorité des marchés financiers
Banque de développement du Canada
Banque du Canada
Banque Laurentienne du Canada
Banque Nationale du Canada
Bell Canada
BMO Groupe financier
Caisse de dépôt et placement du Québec
Fédération des caisses Desjardins du Québec
Gaz Métro
Hydro-Québec
Industrie Canada
Intact
Investissements PSP
Ministère de l'Économie, de l'Innovation et des Exportations
Ministère des Finances du Québec
Power Corporation du Canada
Rio Tinto
Ville de Montréal

Partenaires universitaires

École Polytechnique de Montréal
École de technologie supérieure (ÉTS)
HEC Montréal
Institut national de la recherche scientifique (INRS)
McGill University
Université Concordia
Université de Montréal
Université de Sherbrooke
Université du Québec
Université du Québec à Montréal
Université Laval

Le CIRANO collabore avec de nombreux centres et chaires de recherche universitaires dont on peut consulter la liste sur son site web.

Les cahiers de la série scientifique (CS) visent à rendre accessibles des résultats de recherche effectuée au CIRANO afin de susciter échanges et commentaires. Ces cahiers sont écrits dans le style des publications scientifiques. Les idées et les opinions émises sont sous l'unique responsabilité des auteurs et ne représentent pas nécessairement les positions du CIRANO ou de ses partenaires.

This paper presents research carried out at CIRANO and aims at encouraging discussion and comment. The observations and viewpoints expressed are the sole responsibility of the authors. They do not necessarily represent positions of CIRANO or its partners.

ISSN 2292-0838 (en ligne)

The Gamma Factor and the Value of Financial Advice

Claude Montmarquette^{}, Nathalie Viennot-Briot[†]*

Abstract

“If it has a price, it must have value”

This study, based on a new Canadian survey and adjusting for the causality issue, reconfirms the positive value of having financial advice. As in our earlier paper, the discipline imposed by a financial advisor on households' financial behaviour and increased savings of advised households are key to improving asset values of households relative to comparable households without an advisor. Benefitting from a subset of participants in both surveys, dropping an advisor between 2010 and 2014 was costly: those households lost a significant percentage of their asset values while the households who kept their advisor have gained in asset values.

^{*} CIRANO and Université de Montréal. E-mail: claudio.montmarquette@cirano.qc.ca.

[†] CIRANO. E-mail: nathalie.viennot-briot@cirano.qc.ca.

1. Introduction

Financial institutions frequently describe and advertise the benefits of having a financial advisor. Industry participants routinely claim that this advice contributes by, among other things, increasing the rate of return on investments, improving savings and investment behaviors, selecting appropriate financial products, improving the tax efficiency of savings, optimizing asset mix for personal circumstances and risk tolerance, and ultimately increasing financial confidence and peace of mind. While these benefits may be valid, are the effects of advice observable and measurable? Is financial advice worth the cost?

Not surprisingly, the impact, or value, of advice has drawn considerable public attention. Positive industry claims are met with public skepticism, particularly when the markets show considerable volatility or downward results. By its nature, advice would seem to be a complex set of interrelated processes.

The academic literature remains relatively scarce about the net worth of advised investors, observed differences in portfolio composition and the cost, risk and consequences of advice. The type and volume of reliable data required to measure the various values or impacts of advice are hard to obtain. Overtimes, three factors were identified to estimate the net return on the value of advice. By far, the factor most refer to is the alpha factor where the performance of an investment is compared to a market index. Advice aim at over-performing the market which is realised by few financial advisors. Lower net return with financial advice relatively to non-advised households has been mentioned in many studies. Others have demonstrated the contrary. For the industry, advised savers received a net median returns that were about 3% points higher than non-advised participants. This is not negligible, although, how much of this is from better stock picking is unclear. Balanced market portfolio advice, sometimes associated with the beta factor, seems also to have a positive effect, albeit marginal for some. Recently, as reported by Hermansson and Song (2016), new studies identified value in advice that prompted diversification and improved savings discipline, better disciplined behavior facing market volatility rather than in returns. This is refered in this study as the gamma factor.

With a new Canadian survey, this current study reaffirms the strong postive effect on the amount and the value of assets of advised households. We were able to avoid the causility issue present in

this kind of study to identify if financial wealth attracts advice, or advice impact financial wealth, Furthermore, with a subset of households surveyed in both 2010 and 2014, we show that keeping your advisor was largely beneficial relatively to those who dropped their advisor after 2010 (the survival issue). In short, this research provides the foundation for an exceptionally strong key message about the value of financial advice.

Limits have to be stressed, however, with our results. Although, we control for many factors, we recognize that the positive effect of having the services of a financial advisor is overestimated by the lack of households characteristics, such as, for example, a willingness to invest attitude compare to an impatience to consume, a major factor that is difficult to measure with an household survey.¹

Following the introduction, section 2 concerns the updating of the previous study. Section 3 presents the results of a new literature. In section 4, the value of advice is revisited while in section 5, we discussed the survival principle by comparing the behavior of households present in both 2010 and 2014 surveys. Conclusions and suggestions for further research close the paper.

2. Updating the Previous Study

The Previous Study

In a previous paper (Montmarquette and Viennot-Briot, ‘The Value of Financial Advice,’ *Annals of Economics and Finance*, 2015, 16-1, 69-94), we addressed three questions:

- 1) What are the determinants of having a financial advisor?
- 2) What is the economic impact of having an advisor on household investment asset value?
- 3) How does financial advice work?

That study is based on a pair of detailed surveys conducted on a single, large set of working-age Canadian households about six months apart, in December 2010 and June 2011.² The

¹ Those characteristics are better measured in field experiments for an example associated with investing in human capital. See Johnson C., & C. Montmarquette, “The lack of Loan Aversion among Canadian High Schools Students”, *Canadian Journal of Economics*, 2015, 48-2, 585–611.

² In December 2010, Ipsos Reid was commissioned by Power Financial Corporation to conduct an Internet-based survey on the financial situation of Canadian households. A total of 18,333 working-age households participated; 10 505 were retained after adjustments for out-of-scope and incomplete answers. Sponsored by

sample totaled 3,610 respondents who were the primary financial decision-makers or were involved in the household's financial decision-making. All participants were between 25 and 65, had at least \$1,000 in financial assets and a household income of less than \$250,000. The surveys captured significant detail about the participants':

- financial situations,
- socio-economic background,
- financial literacy,
- behavioural tendencies,
- financial objectives,
- saving rates, type and tenure of advice, as well as their perceptions and satisfaction with their situation and financial advisors.

It should be noted that the financial and economic data are for fiscal 2009. In this survey, 1,785 participants (49.4% of the total) declared having a financial advisor, while 1,825 respondents did not have an advisor.

Question 1: What are the determinants of having a financial advisor?

Against the first question (“What are the determinants of having a financial advisor?”), as expected, three relevant factors positively affect the probability of having a financial advisor:

- income level,
- the capacity of the household to save and
- the age of the respondent.³

Power Financial, CIRANO designed and conducted a follow-up survey focused on assessing the value of advice in June 2011 that reassessed the 10,505 respondents from the original. A total of 4,978 observations were collected; of these, 3,610 were retained after adjustments for out-of-scope, incomplete, and inconsistent answers. CIRANO administered both survey datasets.

³ Asset levels were not considered as a determinant of having (or not having) a financial advisor as respondents' income and savings are correlated with their level of assets.

Respondents who are more financially literate or have a post-secondary diploma are more likely to retain the services of a financial advisor. Households that declare they will *never* save for retirement are less likely to have one. Couples with *no* children are more likely to have a financial advisor, even when we control for income and savings.

Our results are robust but rely on the assumption that advisors influence wealth rather than that wealth attracts advisors. In a survey setting, it was challenging to deal with the causality issue. Thus, our econometric approach was to use a sequential model. First we estimated the determinants of having a financial advisor. Then, we used an instrumental variable (IV) technique to control for endogeneity (i.e., a change or variable that arises from *within* a model or system) to assess how having a financial advisor affects the value of a household investment portfolio.

Question 2: What are the economic impact of having an advisor on household investment assets value?

For the second question (“What are the economic impact of having an advisor on households’ assets value?”), the econometric results show that participants using a financial advisor for more than 15 years have on average about 173% more financial assets, *ceteris paribus*, or 2.73 times the assets of “comparable” non-advised respondents. The impact of advice on financial assets (cash, GICs, term deposits, stocks, bonds, ETFs, investment funds and other investment vehicles) increases with the tenure of advice.

Question 3: How does financial advice work?

Concerning the third question (“How does financial advice work?”), the difference in financial assets is explained by higher household savings rates and a greater allocation of non-cash investments. That disciplined behaviour and greater savings habits are acquired through advice were key findings of the original paper.

The Updated Study

Power Financial Corporation commissioned Ipsos Reid to conduct a second Internet-based survey on the financial situation of Canadian households between July and August 2014.⁴ The financial and economic data assessed by the survey were for fiscal 2013.

This new survey questioned a subset of participants on the same issues as in 2010. However, one key question was added to focus on the causality issue raised before: What prompts households to seek financial advice? Respondents could select only one answer from these options:

- “Was recommended by friends/family/a trusted person”;
- “We felt the need for it”;
- “We were approached by a financial advisor”;
- “Other (please specify).”

More than 85% of advised households chose their financial advisors and were not (directly) approached by one. This statistic strongly supports our assumption in the initial study about the direction of causality from advisor to wealth.

In the 2014 survey, a subset of respondents who participated in 2010 answered similar questions. By asking two specific questions to those respondents, we add a dynamic dimension to the study which is associated with the concept of the “survival principle”:

- 1) How does the asset value of households *without* a financial advisor in 2010 *and* in 2014 compare with households *without* a financial advisor in 2010 but *with* an advisor in 2014?
- 2) How does the asset value of households *with* a financial adviser in 2010 *and* 2014 compare with the asset value of households *with* a financial advisor in 2010 but *without* one in 2014?

⁴ A total of 18,333 working-age households participated and 10,505 were retained after adjustments for out-of-scope and incomplete answers. About one-third was eligible for the study.

In Section 2, we briefly update our review of recent literature (our 2015 paper offers a complete account). In Section 3, we present our econometric analyses of these three questions:

- 1) What are the determinants of having a financial advisor?
- 2) What is the impact of a financial advisor on the value of assets?
- 3) What role do gamma factors play?

Results will be presented for both surveys; however, for households in 2014 with a financial advisor, the sample is restricted to those who declared they chose their advisor. Section 4 draws on households surveyed in 2010 *and* 2014 and discusses the survival principle.

3. The Recent Literature

Before the academic publication of our paper in 2015, a previous version had received considerable attention, notably from the investment industry. A shift in interpretive emphasis was apparent, from an advisor enhancing a portfolio through good stock picking to a more holistic view of the value of advice offered by a financial advisor. As expected, some in the industry considered the study as irrefutable proof that households should have financial advisors. While scientifically *all* studies are refutable by a better study, until proven otherwise, the results stand. In the academic literature, the main criticism of our original paper related to causality, i.e., that wealth attracts an advisor and not vice versa. Though the causality question pertains to *many other* studies, it is not always as evident as an assumption as it was with our study. Resolving this issue is the specific core consideration we address in this paper.

Many studies analyzed in our first paper dealt with the alpha factor: To what extent does an advisor increase household investment assets? Several studies stressed that the cost of a financial advisor is not justified by the low net return realized. This emphasis on alpha has *not* informed our research and does *not* apply to the current study. Our focus is on the gamma factors associated with financial advice: greater discipline, greater savings,

balanced portfolio (sometimes referred as the beta factor), etc. In our view, gamma factors increase the amount of assets *and* their value.

New papers published since our first critical review of the literature state that advisors have been unable to improve investors' risk-weighted return net of fees. However, others identified value in advice that prompted diversification and improved savings discipline, rather than in returns (see Hermansson and Song, 2016, for all the new references, including one to our 2015 paper).⁵

Two studies omitted in our earlier review raised complementary results to the current paper and deserve attention.

Kramer (2012),⁶ drew on longitudinal data of about 16,000 investors over a 52-month period to investigate if advisers add value to individual investors' portfolio decisions. He compared the portfolios of advised and self-directed (execution-only) investors⁷ and analyzed self-directed investors who switched to advice taking. His analysis confirms that advisors add positive value to portfolios.

Hung and Yoong (2010) investigated two interesting questions:

- 1) Do individuals improve their financial behaviour in response to advice?⁸
- 2) If policymakers increase the availability of unbiased financial advice, will participants seek and implement that advice?

The questions relate indirectly to the value of financial advice and both are appealing from a policy perspective. Based on a household survey, their results indicate no statistically significant consistent predictive relationship between reported use of an advisor in 2008

⁵ C. Hermansson and H. S. Song, 'Financial advisory services meetings and their impact on saving Behaviour—A difference-in-difference analysis,' *Journal of Retailing and Consumer Services*, May 2016, 30, 131–139.

⁶ Marc M. Kramer, 'Financial Advice and Individual Investor Portfolio Performance,' *Financial Management*, 2012, 41-2, 395–428.

⁷ Not exactly what we have called the 'trader' in Montmarquette–Viennot-Briot (2015).

⁸ A. A. Hung and J. K. Yoong, 'Asking for Help: Survey and Experimental Evidence on Financial Advice and Behaviour Change,' Rand labor and population, 2010, WR-714-1.

and concurrent plan-related outcomes like savings, investment, and withdrawals.⁹ In a second analysis, they turn to (hypothetical) experimental methods to better understand the causal relationship between advice and behaviour.

Respondents are randomly assigned to one of three study groups:

- 1) *Control group* – the task is presented *without* advice;
- 2) *Group two* – all respondents get the *same* advice;
- 3) *Group three* – respondents may get advice or not (“affirmative decision group”).

The authors found a large and statistically significant positive relationship between advice and behaviour *only* for the affirmative decision group. They concluded that:

- 1) Having policy makers recommend mandatory financial counseling does not remedy bad financial behaviour;
- 2) Advice recipients must be prepared to accept counsel. Accordingly, the financial literacy needed to correctly evaluate the value of financial advice is critical.

4. Revisiting the Value of Financial Advice

Some descriptive statistics

Results for 2010 and 2014 *are* discussed. However, for 2014, among advised households *only those who chose their advisor were retained*.

The data filtering was slightly different: in both cases, households needed \$1,000 in assets, an income of less than \$250,000 and a savings rate of under 90%. Retired respondents had to have government transfer income less than \$26 000 annually. The respondent was 25 years and older in 2014 and between 25 and 65 in 2010.¹⁰ Table 1, compares both surveys on the value of financial assets by categories of respondents.

⁹The survey size is 1,467 individuals with, however, few socioeconomic variables for their regression analyses.

¹⁰ The econometric results are unchanged for 2014, if we restrict the sample to those 25–65.

Table 1: Descriptive Statistics on the Value of Financial Assets by Categories of Respondents

	2010		2014	
	Advised	Non-Advised	Advised (Chosen by Household)	Non-Advised
Observations	1,785	1,825	487	1,097
Median (\$)	101,000	24,000	135,000	25,000
Mean (\$)	193,772	93,384	273,091	79,634
Standard Deviation	281,874	264,005	427,866	173,901

In 2014, 30.7% of households had an advisor (34.2% if households approached by an advisor are included); in 2010, 49%. Recent independent statistics (BC Securities Commission & Oversyth, 2015) suggest the percentage of households with an advisor was oversampled in 2010.¹¹

The mean value of assets for non-advised decreased in 2014 relative to the same category in 2010. The standard deviation of the value of assets for advised households is relatively large in 2014.¹²

Figures 1 and 2 show the distribution of the value of assets respectively for 2010 and 2014 that would prompt a household to seek advice. In both cases, advised households start relationships with only modest asset levels (the median initial investment is \$11,000), while non-advised households believe they need more assets to seek advice. Among the non-advised, almost half (44%) feel they need \$50,000 plus to qualify.

In 2010, we identified another non-advised category, classified as non-advised but active (“traders”). These households self-managed their investments, identified themselves as their main source of advice, and had no advisor because they are capable of managing their own investments. Relatively speaking, they exhibit greater education, income, and

¹¹ Based on a working sample of 1,219 respondents, the study suggests that 30% of Canadians age 35 plus invest with an advisor. Note that the study does not define “advisor.” ‘National Smarter Investor Study. Public Opinion Research. Key Highlights.’ BC Securities Commission & InvestRight, 2015. 14 pages.

¹² Differences in mean value of assets between advised and non-advised households for both years are statistically significant at a 1% level of confidence by standard t-tests.

financial literacy. Nearly two-thirds of “traders” believe they need \$100,000 plus to seek advice.

In 2014, 32% of non-advised households declared that no amount of assets would make them seek advice.¹³ Via a Probit regression, we find that households with savings under \$3,000, the respondent carrying life insurance and being financially literate, are less likely to be among this group.

Thus the samples are different and limit comparisons of the results.¹⁴

¹³ This answer category was not proposed in 2010.

¹⁴ Other differences are discussed in the text.

Figure 1: Distribution of Value of Assets that Would Prompt Households to Seek Financial Advice in 2010

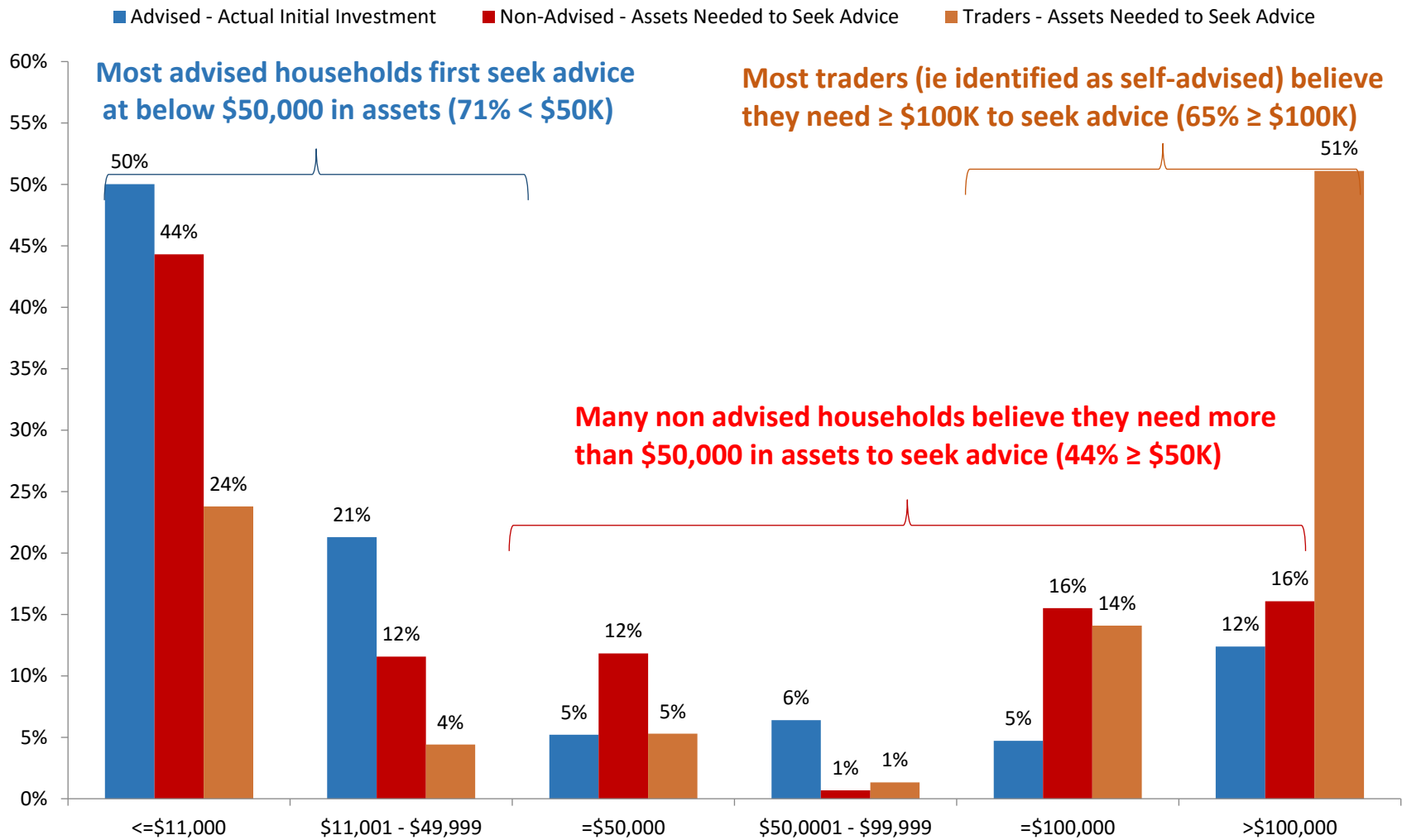
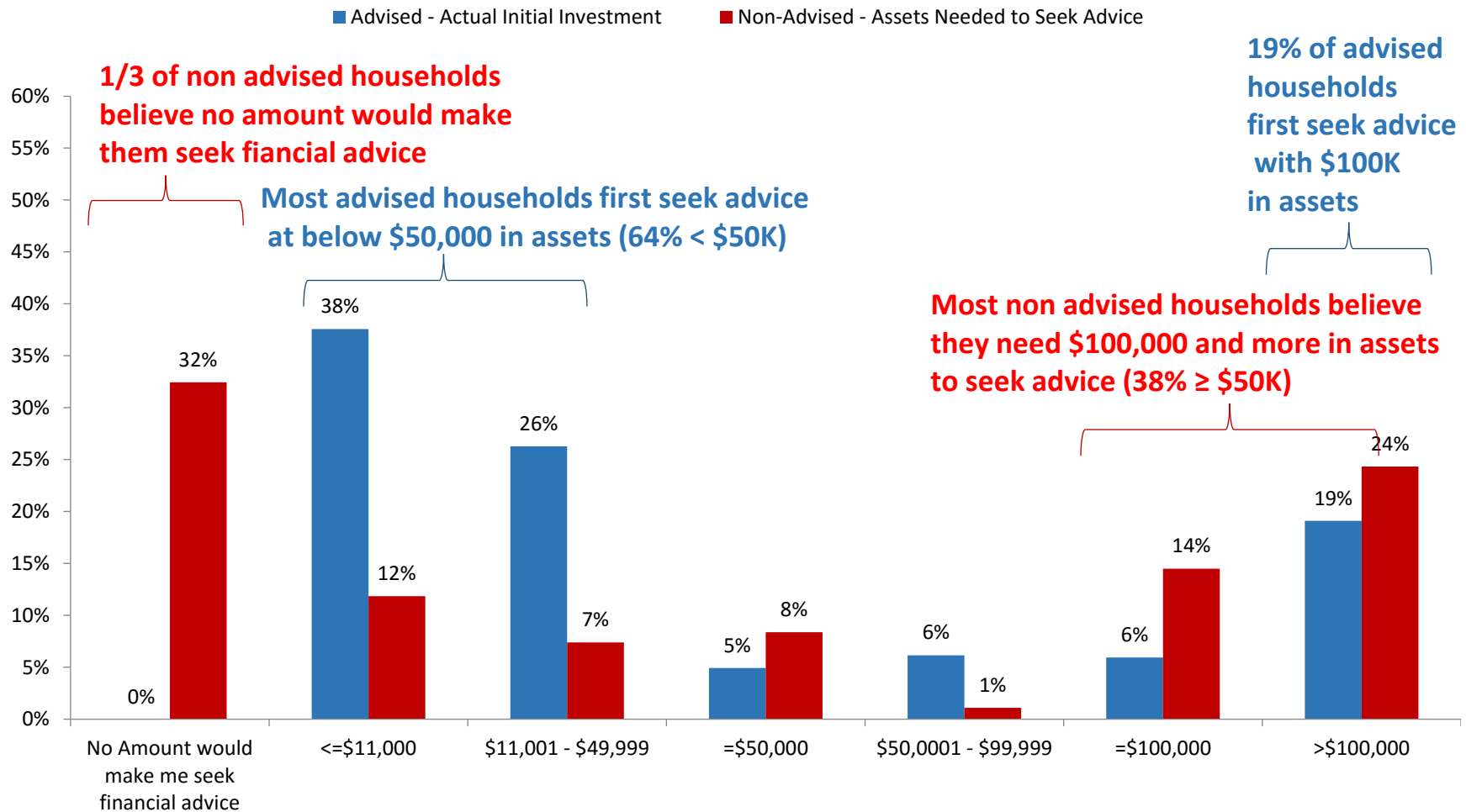


Figure 2: Distribution of Value of Assets that Would Prompt Households to Seek Financial Advice in 2014



The determinants of having a financial advisor

In Table 2, we present the probability determinants of households having an advisor. “FAC” signifies households that chose their own advisor and had not been approached by one. This distinction was not possible in 2010 (where FA is used for a financial advisor).

As expected, in both surveys¹⁵, the key factors that positively affect the probability of having a financial advisor are: income level, the capacity to save, post-secondary education, and age of respondent.¹⁶ In the 2010 survey, having some level of financial literacy positively affects the probability of having an advisor. This variable presents a coefficient estimate not statistically significant in 2014.

However, in 2014, the variable “respondent has a life insurance policy” positively affects the probability of having a financial advisor. It can be argued that for an individual to hold a personal life insurance policy, a certain level of financial literacy is implied. This variable is not present in the 2010 survey, and the measure of financial literacy differs in both surveys (footnote 16). We insist on this point for at least two reasons:

- *First*, as mentioned, Hung and Yoong (2010) stress the need for the recipient of advice to be prepared to benefit from the counsel received.
- *Second*, for many, financial literacy appears a substitute for counsel. Our results suggest that it is a *complement, rather than a substitute*, for financial advice.

¹⁵ The variables “Minimum living needs at retirement”, “Assets needed” and “Traders” were not available in 2014. Many characteristic variables of the households’ respondent were also not available in 2014.

¹⁶ Asset levels were not introduced as a determinant of having or not having a financial advisor as the respondents’ income and savings are correlated with the respondents’ asset levels.

Table 2: The Determinants of Having a Financial Advisor (Probit models)

SAMPLE	2010 ¹⁷	2014 ¹⁸
	FA	FAC
Assets Needed (ln)	-1.62e-06*** (2.38e-07)	
Household's annual income before taxes		
Income before taxes <\$35,000	Ref.	Ref.
\$35,000<= income before taxes <\$60,000	0.096 (0.080)	0.142 (0.155)
\$60,000<= income before taxes <\$90,000	0.219**	0.196

¹⁷ For 2010:+

Consider in the following hypothetical choice offered to the participants: If you were to be presented with an opportunity to receive a cash award, what would you prefer? Please select one only.

- 100% chance of receiving \$500
- 50% chance of receiving \$1,200 but 50% chance of receiving \$0

Participants who chose the second option are considered risk averse.

*Consider the following two questions: If you were given the choice of receiving cash today or in the future, what would you prefer? Please select one only.

- \$1,000 today
- \$1,100 in 6 months

If you were given the choice of receiving cash today or in the future, what would you prefer? Please select one only.

- \$1,000 today
- \$1,100 in a year

Participants who chose the today option for both questions are showing a preference for immediate consumption.

#Participants who chose the second option for both questions in footnote 13 are showing a preference for investing.

&Consider the following two questions: If the interest rate on your savings account is 2 per cent a year and inflation is 3 per cent a year, after five years, you would expect the money in the account to buy how much? Please select one only.

- More than it does today
- Exactly the same as it does today
- Less than it does today
- Don't know

Suppose you have \$100 in a savings account earning 2 per cent interest a year compounded. After five years, how much would you expect your savings account would be worth? Please select one only.

- Less than \$110
- Exactly \$110
- More than \$110
- Don't know

Participants who chose the third option for both questions show financial literacy.

¹⁸For financial literacy, only the first question of 2010 was asked in 2014.

	(0.089)	(0.159)
Income before taxes >=\$90,000	0.416***	0.344**
	(0.098)	(0.164)
Savings		
Savings=0	Ref.	Ref.
savings>0 & savings<=\$3,000	0.255***	-0.188*
	(0.072)	(0.100)
savings>\$3,000 & savings<=\$10,000	0.444***	0.069
	(0.073)	(0.096)
savings>\$10,000	0.673***	0.599***
	(0.088)	(0.098)
Labour market characteristics		
Wages (2010) , Wages and salaries & Self-employment income (2014)	0.060	0.105
	(0.123)	(0.198)
Self-employment income (2010)	0.166	
	(0.138)	
Workplace pension	0.050	0.028
	(0.048)	(0.074)
Working full-time	-0.082	-0.065
	(0.077)	(0.120)
Fully retired	0.179	0.024
	(0.157)	(0.324)
Minimum needed at retirement		
Less than 40%	Ref.	
40%	0.112	
	(0.080)	
50%	0.082	
	(0.070)	
60%	0.059	
	(0.077)	
70%	0.083	
	(0.083)	
More than 80%	-0.072	
	(0.084)	
Economic decisions or preferences		
Never save for retirement	-0.578***	
	(0.095)	
Risk adverse*	0.022	
	(0.062)	
Preference for receiving cash today*	-0.085	
	(0.061)	
Preference for investing#	-0.049	
	(0.069)	
Individual has life insurance		0.432***
		(0.073)

Financial literacy ^{&}	0.103** (0.049)	0.065 (0.078)
Gender		
Female	Ref.	Ref.
Male	-0.036 (0.049)	-0.042 (0.073)
Diploma		
High School / Elementary School diploma	Ref.	Ref.
Post-secondary diploma	0.112** (0.052)	0.323*** (0.101)
Age		
Age < 45	Ref.	Ref.
45<= age<54	0.294*** (0.055)	0.375*** (0.084)
54<=age<65	0.535*** (0.061)	0.624*** (0.106)
age>=65		1.312*** (0.354)
Number of income earners aged 18 or older in the household		
One income earner	Ref.	Ref.
Two income earners	-0.141** (0.068)	0.094 (0.111)
Three or more income earners	-0.218** (0.093)	0.177 (0.146)
Marital status		
Another family type	Ref.	Ref.
Single individual household	-0.018 (0.113)	-0.203 (0.264)
Couple with no children	0.260*** (0.092)	-0.437 (0.270)
Couple with children	0.115 (0.096)	-0.505* (0.269)
Single parent family	0.215 (0.132)	-0.163 (0.305)
Region		
Atlantic	Ref.	Ref.
Quebec	0.056 (0.102)	-0.037 (0.148)
Ontario	0.052 (0.099)	0.037 (0.141)
Manitoba, Saskatchewan	-0.006 (0.121)	0.078 (0.179)
Alberta	0.009 (0.116)	-0.140 (0.173)

British Columbia	0.090 (0.110)	-0.041 (0.164)
Constant	-0.893*** (0.207)	-1.402*** (0.386)
Observations	3,610	1,584
ll_0	-2502.040	-977.399
ll	-2147.675	-861.935
chi2	434.445	213.873
Prob < chi^2	0.000	0.000
r2_p	0.142	0.118
Robust standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Assessing the impact of a financial advisor on the value of assets

A critical goal for a financial advisor is to increase the value of his/her clients' assets. Does this occur? This section addresses this question within the limits of the surveys at hand. In Table 1, we presented the median, mean and standard deviation of the value of financial assets for the two categories of respondents for both surveys.¹⁹ The average value of assets for the non-advised decreased in 2014 relative to 2010. The standard deviation of advised households in 2014 is large.

The median value of financial assets of the advised respondents in 2010 was 4.2 times the median value (2.07 for the mean value) of all non-advised respondents. For 2014, the median value of the financial assets of advised respondents is 5.4 times the median value (3.43 for the mean value) of all non-advised respondents. Thus, the samples are different and impose limits on comparing results.

However, in Figures 3 and 4, differences in median value of assets for the various categories of respondents by income and age are not that different.

¹⁹ As mentioned earlier, only respondents declaring positive financial assets of more than \$1,000 were retained in the study. Financial assets include cash, GICs, term deposits, stocks, bonds, ETFs, investment funds and other investment vehicles.

Figure 3: Median Value of Financial Assets of the Different Categories of Respondents by Income and Age in 2010

▲ Advised ♦ Passive Non-Advised ■ Traders

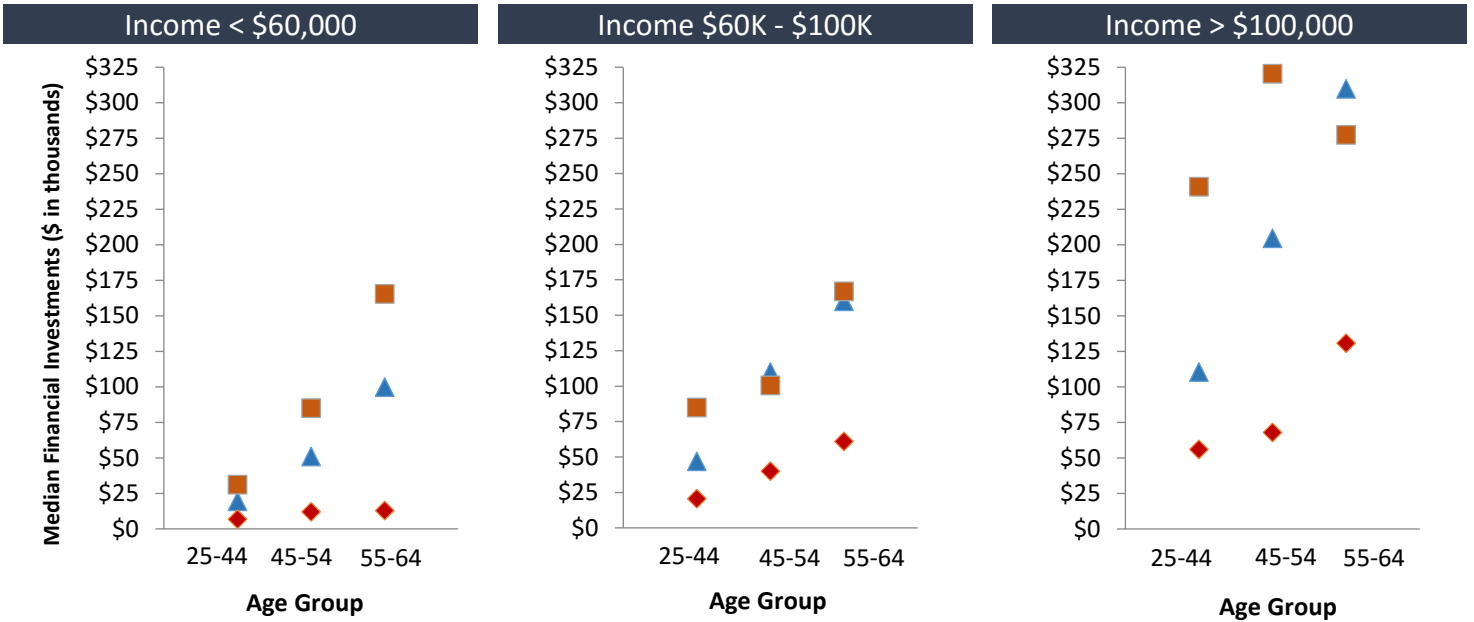
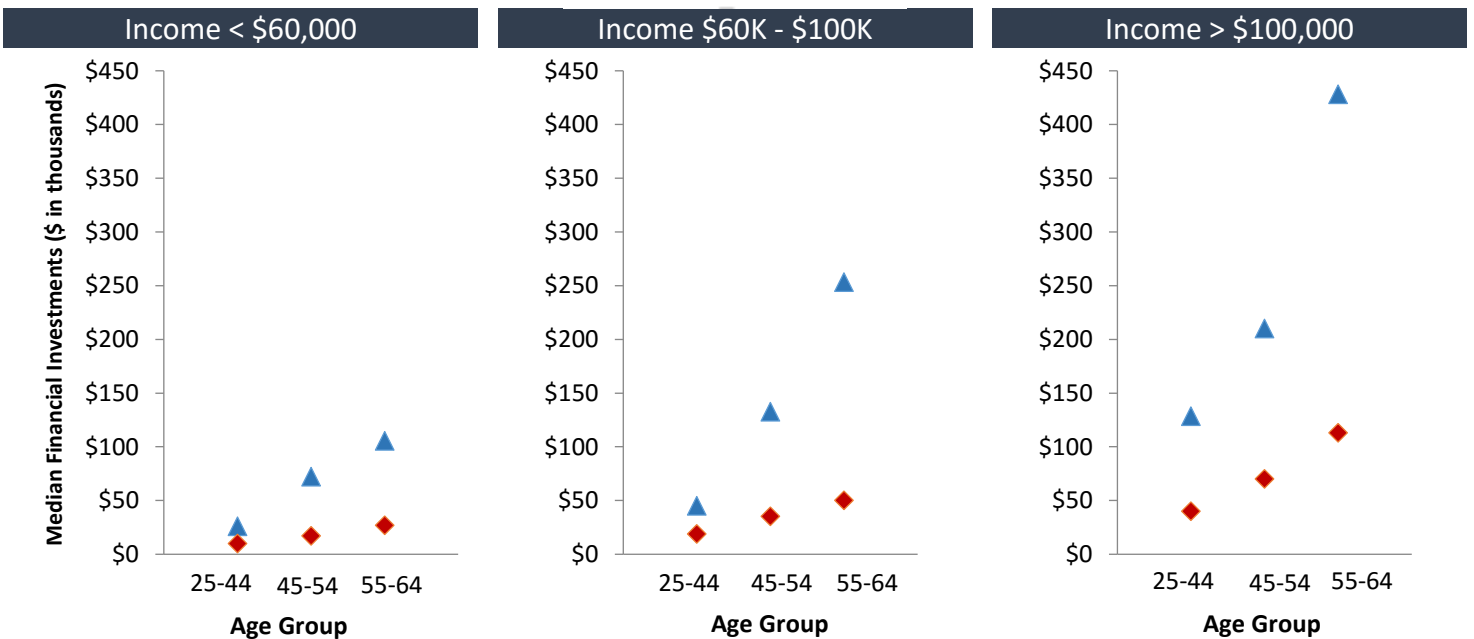


Figure 4: Median Value of Financial Assets of Different Categories of Respondents by Income and Age in 2014*

▲ Advised ♦ Non-Advised



*_“Trader” category was not available in 2014.

To assess the impact of a financial advisor on the value of assets, consider the linear sequential model of equation (1):

$$\ln A_i = y_i\theta + \alpha_0 FAC_i + \alpha_1 FAC * 4\text{ to }6\text{ years} + \alpha_2 FAC * 7\text{ to }14\text{ years} + \alpha_3 FAC * 15\text{ years or more} + \varepsilon_i \quad (1)$$

In equation (1), the effect of the financial advisor, FAC (FA), on the level of assets (expressed in logarithm terms), $\ln A$, is also influenced by the length of time one has had a financial advisor. Positive and statistically significant parameter estimates for the α coefficients will suggest that a financial advisor adds to the financial assets of participants, taking into account the amount of time that one had a financial advisor. y is a set of other explanatory variables, and ε is the error term.

In this specification, the choice of having an advisor, FAC (FA in 2010), is endogenous and is therefore instrumented using the parameter estimates of the Probit regressions above. Substituting the predicted value for FAC (FA), the linear least squares estimation results of equation (1) are reported in Table 3.

**Table 3: Determinants of the (logarithm) Value of Assets
(Instrumented Linear Least Squares)**

	2010	2014
SAMPLE	FA	FAC
The household has a financial advisor (IV)	-0.123 (0.076)	0.468*** (0.144)
Type of advisor X Tenure		
Financial advisor X Less than 4 years (& bad prediction)	Ref.	Ref.
Financial advisor X 4 to 6 years	0.456*** (0.092)	0.837*** (0.249)
Financial advisor X 7 to 14 years	0.687*** (0.074)	0.504** (0.216)
Financial advisor X 15 or more years	1.006*** (0.078)	0.894*** (0.175)
Household's annual income before taxes		
Income before taxes <\$35,000	Ref.	Ref.
\$35,000<= income before taxes <\$60,000	0.482*** (0.089)	0.041 (0.158)
\$60,000<= income before taxes <\$90,000	1.081***	0.504***

	(0.097)	(0.163)
Income before taxes >=\$90,000	1.682***	1.277***
	(0.106)	(0.170)
Labour market characteristics		
Wages (2010) , wages and salaries & self-employment income (2014)	-0.040	-0.867***
	(0.143)	(0.220)
Self-employment income (2010)	0.258	
	(0.161)	
Workplace pension	-0.026	-0.029
	(0.051)	(0.079)
Working full-time	-0.059	0.040
	(0.085)	(0.134)
Fully retired	0.387***	-0.193
	(0.149)	(0.383)
Minimum livings need at retirement		
Less than 40%	Ref.	
40%	-0.036	
	(0.085)	
50%	-0.066	
	(0.074)	
60%	-0.196**	
	(0.082)	
70%	-0.160*	
	(0.084)	
More than 80%	-0.388***	
	(0.093)	
Economics decisions or preferences		
Never save for retirement	-0.926***	
	(0.104)	
Risk adverse	-0.154**	
	(0.063)	
Preference for receiving cash today	-0.082	
	(0.064)	
Preference for investing	0.181**	
	(0.071)	
Individual has life insurance		-0.127
		(0.078)
Financial literacy	0.288***	0.463***
	(0.052)	(0.081)
Gender		
Female	Ref.	Ref.
Male	0.196***	0.297***
	(0.051)	(0.076)
Diploma		
High School / Elementary School diploma	Ref.	Ref.

Post-secondary diploma	0.047 (0.057)	0.152 (0.101)
Age		
Age < 45	Ref.	Ref.
45<= age<54	0.586*** (0.062)	0.551*** (0.088)
54<=age<65	0.950*** (0.071)	0.891*** (0.132)
age>=65		0.406 (0.444)
Number of income earners aged 18 or older in the household		
One income earner	Ref.	Ref.
Two income earners	-0.216*** (0.071)	-0.090 (0.120)
Three or more income earners	-0.379*** (0.097)	-0.096 (0.154)
Marital status		
Another family type	Ref.	Ref.
Single individual household	0.057 (0.121)	-0.205 (0.260)
Couple with no children	-0.027 (0.098)	-0.204 (0.269)
Couple with children	0.066 (0.104)	-0.257 (0.267)
Single parent family	-0.220* (0.132)	-0.257 (0.313)
Regions		
Atlantic	Ref.	Ref.
Quebec	0.030 (0.110)	0.055 (0.161)
Ontario	0.295*** (0.107)	0.272* (0.157)
Manitoba, Saskatchewan	0.214* (0.127)	0.166 (0.187)
Alberta	0.424*** (0.124)	0.048 (0.183)
British Columbia	0.395*** (0.119)	0.278 (0.182)
Industries		
Other industries	Ref.	Ref.
Goods-producing industries	0.109 (0.093)	
Service-producing industries	0.158* (0.082)	
Public administration	-0.080	

Constant	(0.102) 8.947*** (0.233)	9.821*** (0.392)
Observations	3,610	1,584
ll_0	-7201.752	-3109.660
ll	-6301.139	-2804.455
R-squared	0.393	0.320
r2_a	0.386	0.307

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Controlling for multiple factors, the results of the determinants of the value of assets with a semi-logarithmic equation concerning the specific effect of having or not having an advisor differed in 2014 compared to 2010.

In 2010, the presence of a financial advisor increased asset size, but only after four years. For directly comparable individuals, those who had a financial advisor for at least four to six years will have almost 58% more financial assets than those who did not.²⁰ Similarly, a respondent associated with an advisor for seven to 14 years will have 99% more assets. Those with 15 years or more will have 173% more assets than they would have if they did not have an advisor (2.73 times the asset value of the equivalent non-advised household).

²⁰ From the estimated coefficients of equation (1), we predict the \ln of assets of an individual with a financial advisor for at least 4 to 6 years, that is $FA = 1$ and $FA * \text{advisor for 4 to 6 years} = 1$ with the following equation: $\ln A_i = y_i \theta + \alpha_0 + \alpha_1$

Without a financial advisor, $FA = 0$:

$$\ln A_j = y_j \theta.$$

The difference in the \ln of assets for the same individual or a comparable individual in all aspects (same income, age...) except for the presence of a financial advisor is:

$$\ln A_i - \ln A_j = \alpha_0 + \alpha_1. \text{ Raising to the exponential on both sides: } A_i / A_j = \exp(\alpha_0 + \alpha_1). \text{ Neglecting}$$

α_0 which is non-significantly different from zero at the 5% level of confidence, with $\alpha_1 = 0.456$ the expected ratio of assets is equal to 1.58. Similar computations were performed for the other cases and for the 2014 results.

In 2014, the impact of having a financial advisor took effect as soon as four years: for comparable households, the one with a financial advisor gains 69% more value for its investment assets. The additional value reaches 290% for a household with an advisor for 15 years or more (3.9 times the value of assets of the equivalent non-advised household).²¹

Across both years, many other variables have coefficient estimates with positive, statistically significant effects on the logarithm of the value of assets. Notable variables include households with income levels above \$60,000, the household respondent exhibits financial literacy, the household respondent is older than 45 and male, and households in Ontario. Some differences result from the different variables used. For example, 2014 regressions have fewer variables than 2010. Variables that proved to be statistically significant in 2010 like “preference for investing (+),” “never save for investment” (-), “risk adverse” (-) were not available in 2014. This might explain some differences in the results defining the impact of having an advisor. However, these variables do not affect the value of assets only positively.

Assuming the same level of initial assets, what could explain substantial increases in the value of assets of long-tenured advised participants over comparable non-advised individuals?

In recent U.S. research, the accounts of workers who received some form of financial help, or advice, in defined contribution plans were compared with those who received no advice for the period from 2006 to 2010.²² Advised savers received median returns that were about 3% higher than non-advised participants. If markets are efficient, it is indeed difficult to earn even a 3% rate of return through better stock picking. We have shown (Montmarquette and Viennot-Briot, 2015) that with a 3% annual rate of return on a dollar investment compounded, it takes “forever” (exactly 34 years) to achieve a 173% difference in returns and, of course, even longer to obtain 290%!²³ Applied to the 2014 results, the number of

²¹ Those multiple factors are relatively reasonable given that for 2010 the average value of assets for advised respondents is \$193,772 versus \$93,384 for the average dollar assets for *all* non-advised respondents, thus a ratio of 2.07; while for 2014, the corresponding averages are respectively \$273,091 versus \$79,634 or a ratio 3.43. See Table 1.

²² Aon Hewitt and Financial Engines (2011).

²³ A 2015 report from mutual fund giant Vanguard Group Inc., ‘3% Advantage? Show Clients What You’re Worth’ claims that state-of-the-art professional advice can add “about 3 per cent” a year in net returns.

equivalent years is even bigger. The positive impact of advice arises from factors other than better stock picking, such as an increase in savings rates, better portfolio diversification, and more tax-efficient investments. Also, since statistically significant positive coefficient estimates on the tenure dummies are related to compounded growth rates, sticking with an advisor induces more disciplined behaviour during periods of market volatility.

The role played by other gamma factors

How can one explain the much higher level of assets of long-tenured advised households compared to non-advised households if not by the discipline factor?

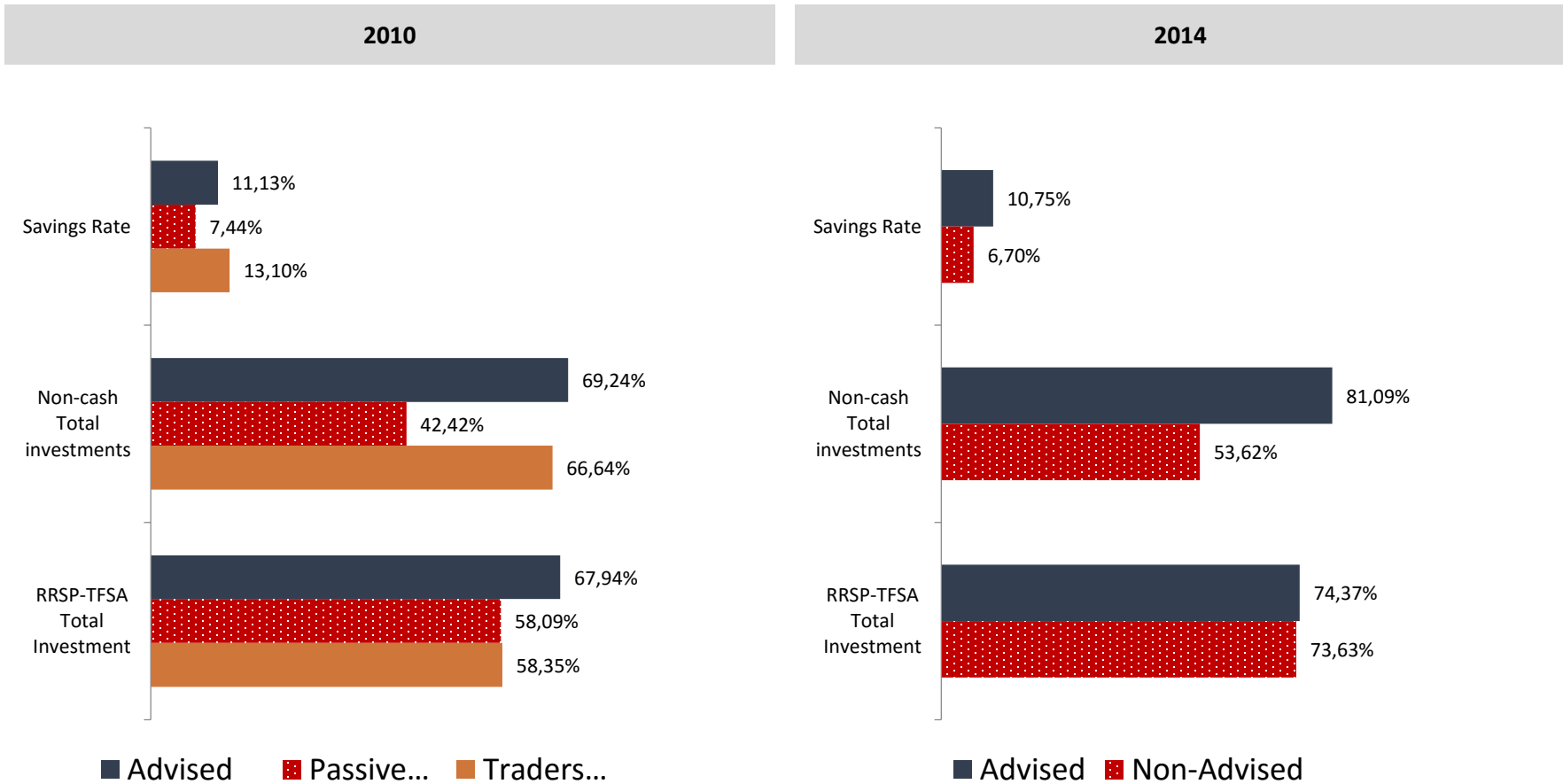
Among the first factors to consider is the saving rate. The saving rate is a primary source for increasing assets. A strategy for improving portfolio performance is diversification of financial investments which are associated in this study with the ratio of non-cash over total investments. Finally, a strategy that minimizes fiscal effects can also improve the value of one's assets. Therefore, the ratio of RRSP (Registered Retirement Savings Plan) and TFSA (Tax-Free Savings Account) investments over total investment is analyzed.²⁴

Figure 5 outlines respondents' observed saving rates and assets allocation. Statistically, significant differences emerge between non-advised and advised respondents regarding their savings rates and allocation of assets into non-cash investments.²⁵ When we combine the fiscal strategies of RRSPs and TFSAs, the difference in ratios between advised and non-advised households are not significant for 2014.

²⁴ In 2010, the TFSA was not included initially. Regressions for 2010 have been estimated with this new fiscal investment ratio.

²⁵ Differences in saving ratios and non-cash ratios between advised and non-advised households for both years are statistically significant at a 1% level of confidence by standard t-tests. The difference in fiscal ratios is statistically significant for 2010 only. For 2010 the, tests are restricted to passive non-advised households.

Figure 5: Savings Discipline and Asset Allocation (Mean Values)



The determinants of these ratios are investigated with Tobit type 2 regressions. The results are presented in the first six columns of Table 4.²⁶ For each ratio, the Probit regression concerns the probability of a positive ratio. The regression regards the determinants of the value of each ratio conditional on a positive ratio. In all regressions, along with other explanatory variables serving as controlled variables, the variables of interest are the presence of advisors (and traders for 2010). Those latter variables are instrumented from the results of Table 2.

In 2010 *and* 2014, the advisor-instrumented variable increases the probability of a positive savings rate, as well as the value of the savings rate when positive.²⁷ ²⁸ The likelihood of a positive ratio of non-cash investments over total investments and of use of fiscal instruments increases with an advisor for 2010 only. In 2014, the value of the proportion of fiscal strategic investments over total investments decreased marginally with an advisor. Given the influence of financial advice on some of these ratios, the next step is to determine whether predicted (instrumented) values of these ratios help explain asset levels.

In both years, the semi-logarithmic regressions reported in the final column of Table 4 indicate positive and statistically significant elasticity estimates for the savings rate and the non-cash total investments ratio. Thus, a one percentage point increase in the savings rate and non-cash total investment ratios increases the level of assets by 5.6% and 6.8% respectively in 2010 and 4.8% and 8.3 % in 2014.²⁹ Negative but lower statistically significant elasticity estimates are observed for the fiscal investments to total investment ratios, also for both years.³⁰

²⁶ The Tobit model involved censored variables. For all ratios, we have an important mass point of observations at zero.

²⁷Burke and Hung (2015) raise the issue of the direction of causality between advisors and savings: advisors increase saving, but individuals with greater savings are more likely to seek out financial advice. Our study accounts for this endogeneity question by instrumenting the financial advisor variable in the saving equations from the Probit model of Table 2, where saving appears as an explanatory variable. Jeremy Burke, Angela A. Hung, 'Do Financial Advisers Influence Saving Behavior'. RAND Corporation, Santa Monica, Calif. 2015. 20 pages.

²⁸Traders in 2010 show a greater probability of positive savings.

²⁹ This is the most parsimonious regression. The first two ratios remain statistically significant when we add 23 controlled variables. Note that with the full model, the adjusted R-squared moves from 0.260 to 0.316. In 2010, the first two ratios remain statistically significant when we include 38 controlled variables and the adjusted R-squared moves from 0.327 (the parsimonious regression) to 0.356.

³⁰This result may be an avenue for further research. The negative statistical significance of the fiscal investment ratios is an interesting result that may have arisen because of any number of factors. These include limitations in data quality, already extensive use of RRSPs and TFSA by all respondents, or the annual limit on RRSPs, which is capped at 18% of earned income for the preceding year to an annual maximum of \$22,970. TFSA contributions were limited to \$5,000 in 2009 and \$5,500 in 2013.

\$35,000<=	income	before	0.343***	-0.013	0.257***	0.092**	0.269***	0.097***	0.358***	0.025	-0.040	0.052**	0.100	0.016
taxes <\$60,000			(0.084)	(0.009)	(0.078)	(0.040)	(0.085)	(0.033)	(0.135)	(0.066)	(0.164)	(0.026)	(0.158)	(0.032)
\$60,000<=	income	before	0.689***	-0.020*	0.562***	0.146**	0.712***	0.110**	0.605***	0.054	0.085	0.066**	0.216	0.008
taxes <\$90,000			(0.100)	(0.012)	(0.086)	(0.060)	(0.099)	(0.053)	(0.140)	(0.093)	(0.169)	(0.028)	(0.164)	(0.044)
Income	before	taxes	0.872***	-0.011	0.767***	0.213***	0.795***	0.122**	0.622***	0.040	0.508***	0.066	0.665***	0.004
>=\$9,0000			(0.118)	(0.013)	(0.096)	(0.069)	(0.111)	(0.054)	(0.148)	(0.097)	(0.185)	(0.047)	(0.183)	(0.085)
Labour characteristics														
market														
Wages and salaries			0.477***	-0.014	0.105	-0.003	0.285**	0.035	1.249***	0.002	-0.055	-0.008	0.289	0.107*
			(0.132)	(0.016)	(0.131)	(0.042)	(0.136)	(0.043)	(0.207)	(0.197)	(0.343)	(0.026)	(0.259)	(0.059)
Self-employment income			0.363**	0.008	0.136	0.017	0.173	-0.043						
			(0.154)	(0.017)	(0.149)	(0.047)	(0.156)	(0.044)						
Workplace pension			-0.024	0.000	0.032	0.000	-0.075	-0.017	-0.045	-0.008	0.231**	-0.020	0.109	-0.003
			(0.063)	(0.004)	(0.053)	(0.014)	(0.065)	(0.012)	(0.073)	(0.014)	(0.095)	(0.021)	(0.101)	(0.018)
Working full time			0.155*	-0.012	0.020	0.006	0.112	0.020	0.152	0.027	-0.032	0.005	-0.141	-0.010
			(0.090)	(0.007)	(0.080)	(0.022)	(0.090)	(0.021)	(0.116)	(0.031)	(0.136)	(0.020)	(0.139)	(0.027)
Fully retired			-0.460**	-0.018	0.049	-0.030	0.166	0.009			-0.455	0.029	0.236	-0.045
			(0.206)	(0.016)	(0.197)	(0.049)	(0.227)	(0.041)			(0.505)	(0.047)	(0.542)	(0.089)
Minimum livings need at retirement														
Less than 40%			Ref.	Ref.										
40%			0.070	-0.027***										
			(0.112)	(0.007)										
50%			-0.029	-0.023***										
			(0.093)	(0.006)										
60%			0.037	-0.033***										
			(0.103)	(0.007)										
70%			0.011	-0.035***										
			(0.109)	(0.008)										
More than 80%			-0.018	-0.027***										
			(0.099)	(0.007)										
Economic decisions or preferences														

Never save for retirement	-0.167*	-0.015	-0.620***	-0.142**	-0.735***	-0.066							
	(0.095)	(0.009)	(0.089)	(0.069)	(0.096)	(0.068)							
Risk adverse	-0.033	-0.005	-0.170**	-0.053***	-0.069	-0.009							
	(0.086)	(0.005)	(0.072)	(0.020)	(0.090)	(0.015)							
Preference for receiving cash today	-0.202**	0.003	-0.134*	-0.034*	-0.073	-0.005							
	(0.084)	(0.005)	(0.070)	(0.019)	(0.082)	(0.016)							
Preference for investing	-0.048	0.023***	-0.021	-0.036*	0.079	-0.026							
	(0.097)	(0.006)	(0.080)	(0.019)	(0.097)	(0.017)							
Individual has life insurance							-0.142*	-0.065***	-0.042	-0.016	0.044	0.024	
							(0.073)	(0.022)	(0.094)	(0.013)	(0.096)	(0.016)	
Financial literacy	0.043	0.009**	0.299***	0.059**	0.140**	0.002	0.144*	0.025	0.254***	-0.002	0.250***	-0.066**	
	(0.062)	(0.004)	(0.054)	(0.026)	(0.066)	(0.014)	(0.074)	(0.021)	(0.093)	(0.025)	(0.096)	(0.033)	
Gender													
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	
Male	0.048	0.011***	0.086	0.033**	0.050	0.022*	-0.020	0.004	0.169*	-0.009	0.167*	-0.002	
	(0.063)	(0.004)	(0.054)	(0.016)	(0.065)	(0.012)	(0.072)	(0.013)	(0.090)	(0.018)	(0.097)	(0.023)	
Diploma													
High School / Elementary School diploma	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	
Post-secondary diploma	-0.033	0.001	0.036	0.006	0.071	-0.010	-0.083	-0.028	0.045	0.001	-0.008	-0.022	
	(0.066)	(0.004)	(0.057)	(0.016)	(0.068)	(0.014)	(0.093)	(0.021)	(0.115)	(0.017)	(0.122)	(0.018)	
Age													
Age < 45	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	
45<= age<54	-0.240***	-0.016***	0.187***	0.089***	0.056	0.038**	-0.035	-0.022	0.246**	0.053**	0.052	-0.002	
	(0.075)	(0.005)	(0.064)	(0.020)	(0.077)	(0.015)	(0.083)	(0.014)	(0.108)	(0.024)	(0.116)	(0.018)	
54<=age<65	-0.407***	-0.009	0.181**	0.095***	0.163*	0.036**	-0.348***	-0.068	0.534***	0.052	-0.148	-0.036	
	(0.087)	(0.007)	(0.070)	(0.022)	(0.088)	(0.018)	(0.115)	(0.041)	(0.176)	(0.041)	(0.157)	(0.027)	
							-0.815*	-0.204	0.310	0.084*	4.921***	-0.038	
							(0.478)	(0.133)	(4.807)	(0.051)	(0.307)	(0.109)	

Number of income earners aged 18 or older in the household

One income earner	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.						
Two income earners	0.175** (0.088)	-0.005 (0.006)						0.089 (0.110)	-0.002 (0.027)						
Three or more income earners	0.161 (0.129)	-0.009 (0.008)						-0.032 (0.148)	-0.010 (0.029)						
Marital status															
Another family type	Ref.	Ref.						Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Single individual household	0.198 (0.132)	0.004 (0.010)						0.506* (0.263)	0.115 (0.078)	0.024 (0.375)	0.024 (0.048)	-0.021 (0.381)	-0.040 (0.046)		
Couple with no children	-0.456*** (0.113)	-0.028*** (0.009)						0.585** (0.268)	0.139* (0.084)	-0.217 (0.383)	-0.000 (0.052)	-0.219 (0.383)	-0.069 (0.057)		
Couple with children	-0.052 (0.118)	-0.007 (0.009)						0.460* (0.266)	0.102 (0.073)	-0.036 (0.382)	0.021 (0.049)	-0.333 (0.387)	-0.039 (0.065)		
Single parent family	0.021 (0.154)	-0.029*** (0.011)	-0.045 (0.103)	0.016 (0.031)	0.085 (0.123)	0.014 (0.026)		0.413 (0.309)	0.097 (0.076)	0.101 (0.439)	0.042 (0.056)	-0.397 (0.425)	-0.006 (0.077)		
Regions															
Atlantic	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Quebec	-0.077 (0.131)	0.002 (0.008)	-0.227** (0.116)	-0.076** (0.035)	0.165 (0.125)	0.017 (0.027)		0.202 (0.152)	0.032 (0.034)	-0.180 (0.205)	0.062** (0.031)	0.464** (0.189)	0.070 (0.058)		
Ontario	0.050 (0.129)	0.014* (0.008)	-0.155 (0.112)	-0.037 (0.031)	0.183 (0.121)	-0.029 (0.027)		-0.104 (0.146)	-0.016 (0.027)	-0.182 (0.199)	0.049 (0.030)	0.217 (0.177)	-0.004 (0.039)		
Manitoba, Saskatchewan	0.348** (0.167)	0.008 (0.009)	-0.038 (0.140)	-0.029 (0.035)	0.345** (0.160)	-0.059* (0.035)		-0.016 (0.186)	0.020 (0.033)	-0.120 (0.246)	0.047 (0.035)	0.025 (0.220)	0.018 (0.037)		
Alberta	0.021 (0.152)	0.029*** (0.009)	-0.024 (0.133)	-0.068** (0.034)	0.345** (0.153)	-0.070** (0.033)		0.035 (0.175)	0.027 (0.031)	-0.235 (0.231)	0.027 (0.038)	0.187 (0.221)	0.044 (0.041)		
British Columbia	-0.058 (0.142)	0.013 (0.009)	-0.067 (0.124)	-0.029 (0.033)	0.191 (0.135)	-0.031 (0.029)		-0.170 (0.166)	-0.013 (0.036)	-0.253 (0.222)	0.017 (0.038)	0.258 (0.209)	0.012 (0.045)		

Constant	-0.202 (0.254)	0.133*** (0.033)	0.181 (0.196)	0.443*** (0.143)	0.049 (0.214)	0.531*** (0.132)	7.033*** (0.187)	-1.840*** (0.377)	-0.168 (0.465)	0.795 (0.528)	0.744*** (0.115)	0.392 (0.495)	0.824*** (0.203)	5.246*** (0.434)
Mills	0.018 (0.030)		0.406** (0.188)		0.288 (0.188)			0.257 (0.242)		-0.105 (0.268)		-0.077 (0.421)		
Observations	3,610		3,610		3,610		3,610	1,584		1,584		1,584		1,584
Censored observations	625		811		437			550		193		161		
Uncensored observations	2985		2799		3173			1034		1391		1423		
rho	0.176		1.000		0.907			1.000		-0.489		-0.307		
sigma	0.101		0.406		0.317			0.257		0.214		0.252		
R-squared							0.324							0.260

Standard errors in parentheses

*** p<0.01, ** p<0.05, * <0.1

From the results of Table 4, the effect of having a financial advisor on the level of financial assets can be isolated from the predicted values of those ratios. First, consider the savings rate variable. The effect of having a financial advisor on the expected predicted savings rate can be computed. With P the probability of a positive savings rate, then the expected value of the savings rate SR is given by:

$$E(SR) = P(SR > 0) + (1 - P)0 = P(SR > 0), \text{ as the savings rate is either positive or zero.}$$

Taken at mean values, differentiating (in a discrete form) this last equation with respect to the variable financial advisor, FAC , yields equation (2):

$$\frac{\Delta E(SR)}{\Delta FAC} = \frac{\Delta P}{\Delta FAC} (\overline{S > 0}) + \bar{P} \frac{\Delta(SR > 0)}{\Delta FAC}. \quad (2)$$

Where,

$\frac{\Delta P}{\Delta FAC}$ is the marginal effect of having a financial advisor on the probability of a positive savings rate;

$(\overline{S > 0})$ is the mean savings rate of all the respondents;

\bar{P} is the mean probability of a positive savings rate of all respondents;

$\frac{\Delta(SR > 0)}{\Delta FAC}$ is the effect of having a financial advisor on the value of a positive savings rate.

Let us illustrate for 2014. From the Probit regression, the marginal effect of having a financial advisor on the probability of a positive savings rate is estimated to be 26.2 percentage points. Specifically, a respondent having an advisor increases the *probability* of having a positive savings rate by 26.2 percentage points above a “comparable” non-

advised respondent.³¹ From the results in Table 4, the effect of having a financial advisor on the *value* of a positive savings rate is 25.8 percentage points. Thus, a respondent with a financial advisor and a positive savings rate will have a savings rate that is 25.8 percentage points higher than an otherwise “comparable” non-advised respondent. Both estimated effects on the *probability* of a positive saving rate and on the *value* of the positive saving rate are large relatively to the observed means between households with and without an advisor. We note that few controlled variables are statistically significant in the regression for the positive saving rate.³²

Solving equation (3) with S and P taken at their mean values of 0.12 and 0.654 respectively shows that the effect of having an advisor on the expected savings rate (holding everything else constant), translates into a 20.04 percentage point increase in the expected savings rate: $(0.262 * 0.12) + (0.654 * 0.258) = 0.20$. This impact is large.³³ Repeating the exercise for the expected non-cash ratio and the expected (RRSP+TFSA) ratios indicates that having a financial advisor changes the values of these ratios by 0 and -5.38 percentage points respectively.³⁴

From these numbers and using statistically significant coefficient estimates (the last column of Table 4), one can infer that for two identical individuals, the one with a financial advisor will have 188% more financial assets, or 2.88 x the level of financial assets of the non-advised respondent.³⁵ This value is comparable to what was previously obtained.

³¹ This is taken directly from the regression of the second column of Table 4. For a Probit model to obtain the marginal effect of a variable x , one must differentiate $\int_{-x/\delta}^{\infty} \frac{1}{\sqrt{2\pi}} \exp\left(-\frac{1}{2}x^2\right) ds$ with respect to x .

³² In 2010, the impact of a financial advisor on the expected saving rate was 0.08. The impact was more on the probability for the household to have a positive saving rates with an advisor than on the value of a positive saving rate. Most likely, there are personal characteristics, not available in 2014, such as the “preference for investing” variable that might explain the differential in results.

³³ Interestingly, Hermansson and Song (2016) estimated that over a three-month period, customers who participated in a financial advisory meeting transferred 22% more savings to their mutual fund relative to those who had taken part in the past but not during that particular period. This suggest an important difference in the savings between the two groups in this temporary situation.

³⁴ Only the statistically coefficient estimates different from zero are considered.

³⁵ For identical individuals i with a financial advisor and j without, the difference in the logarithms of assets is a function of the incremental values of the saving and non-cash ratios due to having an advisor (the non-statistically coefficient estimate on the RRSP ratio is not considered). Thus:

For reference, with the 2010 data we find that an advised household of at least 15 years will have 99% more financial assets, or 1.99 x the level of financial assets of a comparable non-advised respondent.³⁶

Again, we note that the 2014 survey results reveal a more positive effect from having an advisor than in 2010. What explains these differences? We mentioned earlier that the surveys are not entirely comparable. In 2014, we better control the causality effect between advisor and wealth. The financial markets in 2013 performed significantly better than in 2009. Finally, the 2014 survey featured fewer controlled variables and fewer observations.

5. Households in Both 2010 and 2014 Surveys and the Survival Principle

An interesting feature of the 2014 survey was the possibility to match households that were also present in the 2010 survey. This matching gives a sample of 282 observations to study the evolution of these households' financial situations for four years: 2009 to 2013. As this period is relatively short, we do not expect major differences in their socioeconomic situations.

The households might differ on using the services of a financial advisor in two ways. The household did not have an advisor in 2010 but declared having one in 2014 (households found their advisors). Alternatively, a household may have reported having a financial advisor in 2010 (for the most part household have found their advisors), but not in 2014.

The questions to be addressed are these:

$$\ln A_i - \ln A_j = \ln \left(\frac{A_i}{A_j} \right) = 4.834 * 0.2004 + (-1.681) * -0.0538 = 1.059.$$

Raising to the exponential on both sides: $\frac{A_i}{A_j} = 2.88$

³⁶ For identical individuals i with a financial advisor and j without, the difference in the logarithms of assets is a function of the incremental values of the saving and non-cash ratios due to having an advisor (the non-statistically coefficient estimate on the RRSP ratio is not considered). Thus:

$$\ln A_i - \ln A_j = \ln \left(\frac{A_i}{A_j} \right) = 4.834 * 0.2004 + (-1.681) * -0.0538 = 1.059.$$

Raising to the exponential on both sides: $\frac{A_i}{A_j} = 2.88$

- 1) How does the asset value of households *without* an advisor in 2010 or 2014 compare with that of households without an advisor in 2010 but which reported having one in 2014?
- 2) How does the asset value of households with a financial adviser in 2010 *and* 2014 compare with the asset value of households *with* an advisor in 2010 but which declared *not* having one in 2014?

In Table 5, we report the results of simple t-tests of the difference in the mean values of assets for the categories of households concerned.

In the upper part of Table 5, the difference in the average value of assets of households *without* an advisor in 2010 and 2014 relative to households without an advisor in 2010 but which reported having one in 2014 is -\$79 622,48. This difference is statistically different from zero at the 4.14% level of significance: it confirms that a household which went from *not* having advisor to *having* an advisor did significantly better than the household that continued *without* an advisor.³⁷

At the bottom of Table 5, the difference in mean values of assets of households *with* an advisor in 2010 *and* in 2014 relative to households that had an advisor in 2010 but which reported *not* having one in 2014 is \$90 149,47. This difference is statistically different from zero at the 7.45% level of significance: it confirms that households *with* an advisor in *both* years did significantly better than households who dropped their advisor in 2014.³⁸

³⁷ In other words, the probability of rejecting the null hypothesis of no difference when it is true is lower than 5%. Thus, we can assume that the difference is clearly different from 0.

³⁸ Poor returns are one of many reasons why an investor will drop an advisor. We assume that among households that retained advisors, some suffered from poor investment returns.

Table 5: T-tests of the Difference in the Mean Values of Assets for the Categories of Household Concerned

Group (At last FAC)	Obs	Mean	Std. Err.	Std. Dev.	95% conf. Interval	
0 = no advisor in 2010 / no advisor in 2014	124	3762.57	16362.40	182204.00	-28625.81	36150.93
1 = no advisor in 2010 / advisor in 2014	21	83385.05	54633.71	250363.10	-30578.88	197349.00
combined	145	15294.10	16157.27	194559.30	-16641.96	47230.15
diff		-79622.48	45587.43		-169734.80	10489.83
diff =mean(0)-mean (1)		-1.7466				
Degrees of freedom		143				
H0: diff < 0 Pr(T < t)		0.0414				

Group (No more FAC)	Obs	Mean	Std. Err.	Std. Dev.	95% conf. Interval	
0 = advisor in 2010 / advisor in 2014	96	105809.30	36791.34	360480.00	32769.28	178849.40
1 = advisor in 2010 / no advisor in 2014	41	15659.85	40000.30	256126.90	-65183.77	96503.47
combined	137	78830.28	28564.46	334338.50	22342.32	135318.20
diff		90149.47	62124.19		-32713.06	213012.00
diff =mean(0)-mean (1)		1.4511				
Degrees of freedom		135				
H0: diff > 0, Pr(T > t)		0.0745				

In Table 6, we assume that the results of regressions in the differences in (logarithm) assets value for each household in the sample survey can be explained by their decision to add or drop an advisor in 2014.³⁹ The regressions take into account some changes in their socioeconomic characteristics or status that might have occurred since 2010. In column (1), we pool the whole sample of 282 observations while in columns (2) and (3) we use the same setting of comparisons as in Table 5.

The results of Table 6 indicate only one statistically significant difference when a household had an advisor in 2010 but not by 2014. The negative corresponding coefficients suggest that those households suffered a drop in the value of their assets relative to households that kept an advisor.

However, to what correspond exactly this statistically negative coefficient on the ‘no more financial advisor’ variable since both types of households have over the four years period saw an increase in their assets values, (see Table 5), and substantially so for those households who kept their advisor. Does it translate to reduced gain or a real loss for the

³⁹ The differences in the logarithms of the value of assets follow the specification retained in Table 3, to obtain a difference in difference specification as close as possible.

households dropping their advisor? One way, to answer this question is to predict from all the coefficient estimates of the regression of the last column of Table 6, the predicted differences in the logarithms of the asset values (between 2010 and 2014) for both types of household. The results indicate that households who kept their advisor have seen their assets values increase by 26% while the other type of households has suffered a loss of 34.2%. This method does not compare identical households with and without a financial advisor in 2014 as changes in some socio-economics situations could have occurred for one type of households and not the other.⁴⁰

Table 6: Regressions in the Differences in (logarithm) Asset Values Between 2010 and 2014

SAMPLE	All	No advisor in 2010	Advisor in 2010
No more FAC	-0.653*** (0.201)		-0.603*** (0.215)
At last FAC	0.133 (0.267)	0.048 (0.302)	
Difference between income	4.78e-06 (6.62e-06)	4.15e-06 (1.03e-05)	1.67e-06 (9.22e-06)
Difference between squared income	7.14e-12 (2.71e-11)	2.10e-11 (4.58e-11)	1.42e-11 (3.62e-11)
No more wages	0.275 (0.269)	0.007 (0.537)	0.388 (0.312)
At last wages	-0.389 (0.532)	-0.661 (0.758)	-0.152 (0.793)
No more working pension	0.624** (0.273)	0.714 (0.461)	0.563 (0.355)
At last working pension	0.248 (0.239)	0.171 (0.326)	0.329 (0.387)
No more full-time	0.126 (0.148)	0.087 (0.230)	0.207 (0.207)
At last full-time	-0.824**	-1.260**	-0.318

⁴⁰ Assuming identical changes is equivalent to ignore the coefficient estimates that are not statistically significant in the regression of column (3). Thus, those who did no longer retained and advisor:

$$\ln A_{2014} - \ln A_{2010} = \ln \left(\frac{A_{2014}}{A_{2010}} \right) = -0.603. \text{ Taking the exponential on both sides: } \frac{A_{2014}}{A_{2010}} = 0.546. \text{ This is to be}$$

compared to the households who kept their advisor: $\ln A_{2014} - \ln A_{2010} = \ln \left(\frac{A_{2014}}{A_{2010}} \right) = 0.00$ or

$$\frac{A_{2014}}{A_{2010}} = 1,$$

as the value of no more financial advisor is 0.

No more fully retired	(0.413)	(0.597)	(0.629)
	-1.072	-0.855	
	(0.865)	(1.050)	
At last fully retired	-0.017	0.416	-0.094
	(0.407)	(0.820)	(0.483)
No more financial literacy	-0.299	-0.379	-0.258
	(0.224)	(0.353)	(0.311)
At last financial literacy	0.080	0.129	-0.015
	(0.179)	(0.255)	(0.270)
Change in household composition	0.044	0.017	0.036
	(0.163)	(0.257)	(0.225)
Moved to another province	-0.790*	-0.898*	
	(0.451)	(0.501)	
Constant	0.088	0.186	-0.027
	(0.142)	(0.216)	(0.199)
Observations	282	145	137
R-squared	0.135	0.130	0.151

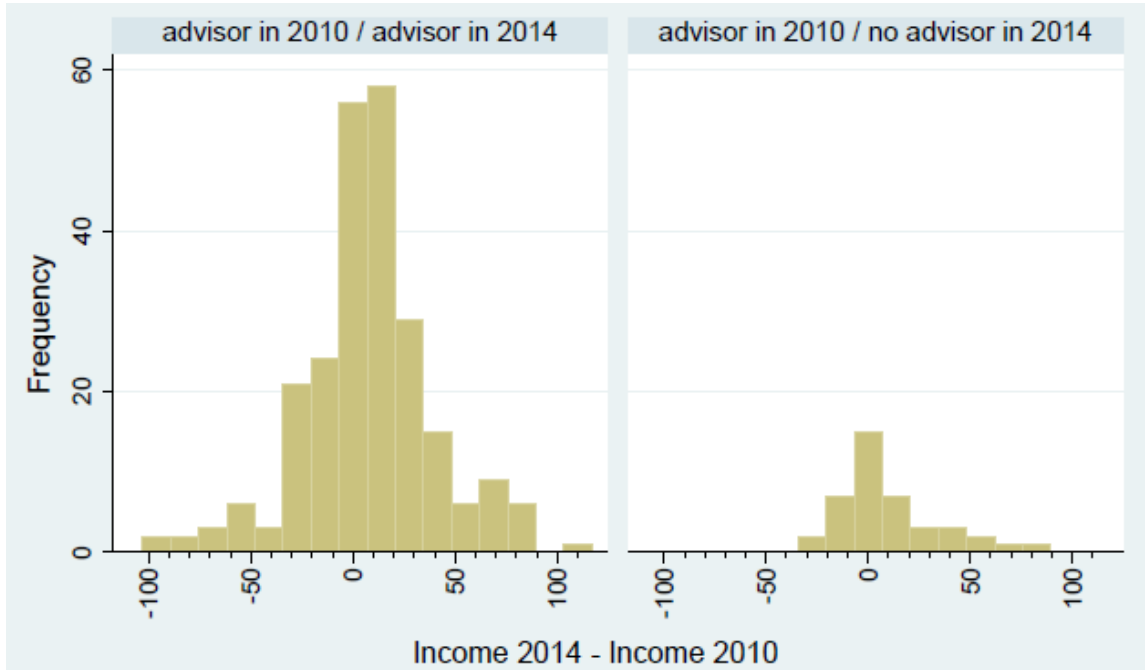
Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Income is the most likely variable that could have changed differently between the two types of households. However, Figure 6 below shows that the differences observed in income between 2010 and 2014 are in general small for most households and skewed on the positive side for households who dropped their advisor by 2014. Thus, dropping an advisor is unlikely to be associated with lower income in this sample.⁴¹

⁴¹ This remark raises the point that dropping an advisor is a decision and therefore an endogenous variable. We did not instrument this decision in this regression because we do not have appropriate instrumental variables. Changes in income could be one, but it is unlikely to be significant in light of Figure 6. The loss in assets values could be considered an explanatory variable, but will complicate the model and raises serious identification issues. Furthermore, as seen in Table 5, on average the assets values of households who have dropped their advisor have increased between the four years period.

**Figure 5: Difference in income between 2014 and 2010 by household type
(in thousand of dollars)**



6. Conclusions and further research

This study, based on a new Canadian survey, reconfirms the positive value of having financial advice. As in our earlier paper, the discipline imposed by a financial advisor on households' financial behaviour and increased savings of advised households are key to improving asset values of households relative to comparable households *without* an advisor.

Two major research elements were associated with the new survey.

First, a new question was added to the previous questionnaire to identify who approaches whom for financial advice. This has been referred to in the literature as the causality issue: Does financial advice *improve* household wealth, or is it household wealth that *attracts* advice? Through our improved questionnaire, we found that more than 85% of households

with a financial advisor chose their advisor and were not approached by one. This important statistic validates to a large degree our assumption on the direction of causality from advisor to wealth as in our previous study. It provides an easy way to disentangle the causality issue by restricting our analysis to households declaring they found their advisor.

Second, we were able to compare the financial situation of 282 households in 2010 and 2014 and to evaluate the consequences of having or not having a financial advisor in the evolution of their assets value.

As expected, for both surveys, key factors that positively affect the probability of having a financial advisor are: income, savings capacity, age, education level and financial literacy.

The two regressions investigating links between asset levels and household use of an advisor confirm the active role of financial advice on asset values. However, some differences associated with the importance of this advisory effect became evident.

In 2010, having a financial advisor for at least four years affected financial asset levels of respondents. Compared to non-advised households, the long-tenured (15 years plus) advised households had 2.73 times more financial assets. With the 2014 survey, the presence of a financial advisor proves its effect as soon as the first four years. The additional value reaches 290% for a household with an advisor for 15 years or more: 3.9 times the value of assets of the equivalent non-advised households.

For both surveys, the discipline associated with a long-tenured financial advisor and greater savings are key to explaining the differential in household asset values over those without an advisor. The effect on savings from advice is greater in 2014 than in 2010.

Applying the survival principal, it is evident from our panel data that dropping an advisor between 2010 and 2014 was costly: those households lost a significant percentage of their asset values while the households who kept their advisor have gained in asset values.

In short, financial advice matters, and the results are robust.

But, more has to be done to better assess the value of financial advice. One area of research is on the role of financial literacy. Sometimes, presented as a substitute to a financial

advisor by regulators, this study put forward the complementary dimension between financial advice and financial literacy. Other topics of interest: Do low balance or low-income investors benefit from having advice? A more comprehensive definition of 'Asset mix', and its impact on performance, as an additional determinant of the value of advice. Why do investors drop their advisors? How much one is willing to pay for advice if it has a value?



1130, rue Sherbrooke Ouest, bureau 1400, Montréal (Québec) H3A 2M8

Tél. : 514-985-4000 • Téléc. : 514-985-4039

www.cirano.qc.ca • info@cirano.qc.ca