Long Term Savings Decisions: Inertia, Peer Effects and Ethnicity[*]

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Abstract

We investigate long term savings decisions following a major financial reform in Israel. Employees who had previously been required to contribute to a default saving fund were given the freedom to choose from a multitude of different funds. A unique dataset from a large employer provides a rare window into the savers' decisions. We find that during the first year of implementation, less than 7% of the employees exercise their new freedom and switch out of the default fund. Furthermore, even when employees do switch, the funds chosen do not outperform other funds in observable measures such as the Sharpe Ratio or associated costs. However, the choice of funds appears to be strongly influenced by the employee's social environment. We exploit within-department variation in the choice of funds made by co-workers from one's ethnic group to identify strong peer effects. Results suggest that an increase in the popularity of a particular fund among co-workers from one's ethnic group, significantly increases the likelihood that an employee would subsequently choose that same fund. Interviews with a subsample of the population also indicate the influence of non-professional colleagues. This has important implications for the design of effective financial reforms.

1. Introduction

Population aging and the recent financial crises have raised concerns in academia and among policy-makers regarding the process by which people make savings decisions and allocate their savings among different investment vehicles. Governments around the world are implementing reforms aimed at improving the quality of long-term savings. This paper contributes to the literature that investigates factors that affect long-term savings. Specifically, we investigate decisions following a substantial regulatory change in Israel which will serve as our case study. Prior to the reform, employees were required to contribute to a default saving plan (provident fund) chosen by the employer. Following the reform, employees were given a choice from over two hundred different provident funds. We use a unique proprietary dataset from a large employer in Israel which contains detailed information about employees' savings decisions following the reform. This offers a rare window into these decisions. How many employees actually switch out of the default? Which funds do they choose? Are these funds distinguishable from other funds on observable measures? Furthermore, the richness of the data allows us to investigate how an employee's social environment – and in particular the choices of her coworkers – affects her decision.

Over the last decade a considerable body of empirical literature has emerged investigating peer effects in various contexts.[1] A major challenge confronting such studies is the fact that a correlation in behavior (e.g. savings decisions) within peer groups cannot automatically be attributed to a direct influence of group members on one another (Manski 1993). For example, workers in the same department face the same organizational environment and may respond to common shocks. Further, workers in a given department may share similar unobserved characteristics which lead to similar choices. The unique richness of our data allows us to plausibly address such concerns.

Four features of the data are particularly important. The first is that we observe behavior immediately following a shock to the regulatory environment which affected all employees. The reform was substantial and highly publicized throughout the country:

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[1] Examples include student outcomes and choice of majors (Sacerdote 2001, Cipollone and Rosolia 2007, Ammermueller and Pischke 2009, De Giorgi et al. 2010, Lavy and Schlosser 2011, Lavy, Paserman and Schlosser forthcoming); health plan choice (Sorensen 2006); criminal behavior (Bayer, Hjalmarsson and Pozen 2009); mutual funds proxy voting (Matvos and Ostrovsky 2010) and stock market investment decisions (Hong, Kubik and Stein 2004, Brown Et Al (2008)). With respect to long term savings, Duflo and Saez (2003), Beshears et al. (2011) and Kast et al. (2012) study how peers influence the magnitude of savings.

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employees were exogenously moved from a no-choice environment to one in which they could choose which fund to save in. As detailed below, the reform affected only the choice of fund and not the amount of savings invested in the fund (which is effectively determined by fixed contributions by the employee and employer). This helps us to isolate an important dimension of savings decisions, namely the choice of the fund provider.

A second feature of our dataset is that it contains information on the timing of the decision. Thus, beyond examining the association between choices made simultaneously by different employees – where it may be hard to know who affected whom – we can focus on the association of decisions by peers in an early period with decisions made in a later period. Third, we know not only whether the employee switched out of the default but also the particular fund chosen. This allows us to investigate whether observable fund characteristics emphasized in the finance literature play an important role in savers' decisions. It also helps address some of the challenges involved in identifying peer effects.

Finally, the dataset is rich in terms of information about employees. We know the department in which the decision-makers are employed; several department characteristics (location, size); and employees' personal characteristics (education, family status etc.). Importantly, we also know employees' detailed ethnic background. That is, we know the country of birth of each employee's paternal grandfather (most Israeli Jews either immigrated or descend from people who immigrated to Israel during the past century). While ethnicity is often unobserved to outsiders, in Israel it is frequently a salient characteristic of the individual which commonly affects her social circle. We can thus examine the association of one's choices not only with the choices of other members of the department in which she is employed, but also with the choices of co-ethnics within that department.

Consistent with existing evidence in behavioral finance, the employees in our sample seem to exhibit substantial inertia.[2] Despite the drastic and well-publicized reform, 93% did not switch funds and stayed with the default. Interestingly, by far the most popular fund chosen by those who switched did not stand out in terms of performance (returns, Sharpe Ratios), transaction costs or services as compared to hundreds of other available funds.

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[2] See e.g., Madrian and Shea (2001) on inertia in 401(k) savings behavior.

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We find a substantial association between an employee's choice of fund and the decisions previously made by peers in her department. This association may be due to any combination of common unobserved attributes of employees in a given department; various department-level shocks (e.g. ongoing marketing campaigns, seminars, educational efforts etc.); and peer effects. However, we find that even within a given department, employees are more likely to choose a particular fund the higher the proportion of co-ethnics from that department who previously chose that fund. That is, above and beyond any general tendencies in some departments to choose certain funds – an individual choice is strongly affected by peers from her ethnic group.

It is noteworthy that in the US, several studies document considerable variation of savings behavior across ethnic groups.[3] Our research contributes to this literature by further examining how saving choices spread within ethnic groups.

To complement our empirical investigation we also conduct a set of structured interviews with a sample (77 employees) of our investigated population. While employees say that choosing a savings fund is an important decision – and point to funds' returns as the important criterion in choosing funds – their actual knowledge of their fund's rate of return is rather poor. Further, when asked who they consulted before deciding to switch to their current fund, more than half of the interviewees who opted out of the default mention the recommendation of co-workers. These responses are consistent with our main findings: savings decisions do not appear to be strongly grounded in observable fund performance and appear to be strongly influenced by (non-professional) peers.

The paper is organized as follows. Section 2 provides institutional details on the market structure and a brief introduction to ethnicity in Israel. Section 3 describes the data and section 4 examines the performance of the funds chosen by the employees. Section 5 presents our strategy for identifying peer effects and section 6 presents the results. Section 7 presents qualitative results from the interviews and section 8 concludes.

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[3] For instance, black Americans accumulate less financial wealth (Altonji, Doraszelski and Segal 2000), as well as less human capital (Neal and Johnson 1996; Fryer, Ronald and Levitt 2004), and are less likely to invest in the stock market (Hurst, Luoh and Stafford 1998).

2. The setting

This section describes the institutional and social setting in which our empirical investigation takes place. We first describe the financial reform, then turn to the structure of the long term saving plan under investigation (provident funds) and finally we briefly discuss ethnicity in Israel.

2.1 The 2005 Reform in Financial Markets in Israel

The Israeli capital market in general and the intermediaries that supply long term saving products in particular have recently gone through a series of drastic regulatory changes, also known as the "Bachar Committee reform". The reform was designed to boost competition and reduce concentration in the banking sector, as well as to address conflicts of interest among financial intermediaries in the market.

Prior to these changes, five banks dominated all aspects of financial intermediation in Israel, with no other significant intermediates, effectively making clients a captive audience of provident funds owned by banks. Despite being regulated by the Bank of Israel (the Israeli central bank) and the Israel Securities Authority, the market was characterized by potential conflicts of interests and excessive concentration. Hence, a structural change in the Israeli capital market was implemented.

The Bachar Committee stated that investors should be free to select their provident funds as they see fit, unbound by employer recommendations or interests. Moreover, the reform forced banks to divest of their provident funds.[4] As a result, the reform encouraged investment houses to offer the public various provident funds that varied in their risk exposure and investment policies. Indeed, the number of provident funds offered in Israel grew from 168 in 2005 to 226 in 2008.

The reform was enacted into law in 2005 and implemented during the ensuing years. By the end of 2006, employees in our organization could switch to non-default funds, and hence we focus on the period January-December 2007.[5]

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[4] Alternative solutions, such as ownerships sale and retention of management, or management outsourcing while retaining ownerships, were deemed insufficient to eliminate the potential conflict of interest. The committee also included recommendations about underwriting, marketing, advisory, adviser's compensation etc. that have been implemented gradually over time.

[5] Three employees in our data switched out of the default already in late 2006. They are included among the early switchers.

2.2 Provident Funds

A traditional provident savings plan in Israel consists of two components: an employer contribution of up to 7.5% of the employee's salary into this plan, and an employee contribution of up to 2.5%. In most workplaces the plan can be liquidated any time after six years from the initial deposit. There is usually a one year waiting period for eligibility to the provident plan benefit. In addition, there exist tax advantages to investing in provident funds up to a certain threshold. In practice, this means that the amount of savings is determined by the employer and not the employees (who almost always participate when eligible).

Following the financial reform described above, employees could choose between dozens of different vendors who offer provident funds. A vendor may provide more than one fund, and the funds can differ by their investment strategy. These funds may include money-market funds, various bonds and stocks (both Israeli and foreign). In our case, employees who take no action are automatically enrolled in a default fund (the same fund all employees were enrolled in up to 2006 before the reform).

2.3 Ethnicity in Israel

Modern Israel is an immigration country. Israeli Jews are often grouped into two major groups: "Sephardic" whose ancestors come mostly from North Africa (e.g. Tunisia, Morocco) and Asia (e.g. Iran, Iraq); and "Ashkenazi" whose ancestors come mostly from Europe and North America.[6] Studies consistently show significant differences in social and economic performance across these groups.[7] However, these groupings mask significant heterogeneity. For example, the wage gap between Asian Sephardic and Ashkenazi Jews is narrower than the gap between North-African Sephardic and Ashkenazi Jews (Cohen 2002). In our empirical investigation, we hence use a finer classification into five Jewish ethnic groups (in addition to the non-Jewish group) according to parental grandfather country of birth: North Africa; Europe and North America; Former Soviet Union; Middle East; and other Jews.

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[6] "Sepharad" means Spain or Iberia in mediaeval Hebrew while "Ashkenaz" means Germany.

[7] As Rubinstein and Brenner (2011) recently put it, "By the late 1990s, half a century after the establishment of the state of Israel, the Sephardic-Ashkenazi wage gaps had become as large as the black-white wage gaps in the United States as reported by Altonji and Blank (1999)".

3. Data

Our main source of data is a proprietary dataset from a large employer in Israel. The employer provides benefits to its employees through a traditional provident savings plan, which has the same terms for all workers. The data include 10,723 employees in 103 separate departments, who continued to work in the same department for the entire period between January 2007 and December 2007. The median department has 49 employees, but there are thirteen departments with over 200 employees. In most of the analysis below we exclude five departments (seven employees) with less than three employees in a department.

In addition to an employee's department, the dataset contains a rich set of demographic variables including age, gender, marital status, number of children, place of residence, years of education, type of institution granting highest diploma (university, college or other), academic profession, whether the employee is tenured and department location (urban or remote).[8] As emphasized above, a unique feature of the dataset is that it includes information on employees' ethnicity based on paternal grandfather's country of birth. Of the 10,723 employees 23.5% are Jews originating from North African origin; 22.3% from other Middle Eastern countries; 13.7% from the Former Soviet Union; and 21.3% from Europe and North America. The rest include non-Jews, and Jews originating from Sub-Sahara Africa and Latin America.

In addition to the administrative data, we obtain additional information by conducting face to face interviews with a subsample of 77 employees. The sampling method and questionnaire are detailed in section 7.

4. Which funds did employees choose?

Table 1 shows summary statistics on individual fund choices made during 2007 following the implementation of the reform. The first row shows all non-default choices. We split the data into two periods so that as close as possible to 50% of the switchers move in each period. During the first eight months of 2007 (period 1), 2.6% of workers switched out of the default, and during the remaining four months (period 2) another 4.3% switched, for a total of 6.9% of employees who switched during the entire year. In itself, the relatively small proportion of non-default choices is perhaps not surprising: it is

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[8] While these variables are used in our regression analysis, we are not permitted to disclose any detailed descriptive statistics

consistent with an effect known in the literature as "inertia": for various reasons, people choose to stay in their current situation.[9] However, as we note below, this inertia can in our case be at least partly attributed to the relatively low fees charged by the default fund.

[Table 1]

The employees who did switch funds following the reform, opted for 58 different non-default funds out of more than two hundred possibilities. We concentrate on the five largest vendors, who attracted over 88% of those employees who opted out of the default fund. We denote these vendors as vendors X, 5, 6, 7, and 8. Vendor X offered only one fund, which we denote "Fund X".

As can be seen from the table, Fund X is by far the most popular fund among switchers, and was chosen by 64% of the switchers. We next examine the performance of this fund relative to that of other provident funds in the industry.

Figure 1 compares the performance of the main funds chosen to the mean performance among provident funds in 2007, using publicly available data provided by the Israel Ministry of Finance. Panel A shows rates of returns and panel B shows Sharpe Ratios. In both figures, the rightmost point shows the average performance in the industry together with the 95% confidence interval. As the figure plainly shows, Fund X did not show outstanding financial performance compared to the provident funds' industry, nor did most other funds that were chosen by switchers (except perhaps Vendor 5, which attracted 6% of the switchers).

[Figure 1]

Figure 2 compares monthly returns of Fund X to the average across funds in the industry. Again, fund X is not exceptional: its monthly returns are both similar and highly correlated with those of the industry. Figure 3 shows the accumulated assets managed by Fund X and its excess monthly rates of returns.

[Figures 2, 3]

Overall, publicly available information does not indicate any meaningful difference in the performance of Fund X relative to other funds. This seems to suggest

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[9] There is a growing academic literature that investigates inertia and savings' automatic enrolment. For example, Madrian and Shea (2001) document that the 401k participation rate of the cohort at 3-15 months of tenure whose default choice was not to enroll was 37%, which is less than half the 86% participation among the new cohort whose default was to enroll. In Choi et al. (2004) 35% of self reported under-savers express an intention to increase their savings rate in the next few months, but 86% of these well-intended savers have made no changes to their plan months later.

that past fund performance was not the key factor in employees' decisions to join this fund.

Beyond performance, Fund X charged similar fees as the typical provident fund during this period (between 1% - 1.5%).[10] . For comparison, the default fund charged lower fees than the average industry rates (less than 0.3%).

To sum up, observable economic indicators do not seem to be sufficient to explain the employees' preferences toward fund X.

5. Identification of peer effects

The identification of peer effects poses several challenges, highlighted by Manski (1993) and the ensuing literature (see Blume al. 2011 for a recent review). In this section we detail our strategy for addressing these challenges.

Consider estimating a linear equation of the form:

$$y_{ij} = \alpha + \beta y_{j-i} + X'_i\gamma + D'_j\delta + \varepsilon_{ij} \qquad (1)$$

where y_{ij} is the outcome (e.g. choice of a particular fund) for individual i in department j; y_{j-i} is the mean outcome in department j excluding individual i; X_i is a vector of individual i's characteristics; and D_j is a vector of department j characteristics.

Our main interest is in the effect of one's peers on one's savings decision, or, more precisely, on the extent to which employee i is influenced by the average behavior of other employees in her department. Notice however, that a positive estimate of β in equation (1) might not be an accurate measure of such a causal effect. A first issue is the so called *reflection problem*: β represents not only the effect of y_{j-i} on y_{ij}, but also the possible effect of y_{ij} on y_{j-i}. Second, the relationship between i's behavior and her peers' behavior may be due to common unobserved characteristics. It is quite possible that people with similar characteristics either self-select or are selected by the employer into the same departments. Thus, an observed similarity in choices may be due to *selection effects*. Third, a correlation in choices within departments may be due to employees in the same department facing the same institutional environment or being exposed to similar marketing campaigns by various funds. We will call these *correlated effects*.[11] Notice that

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[10] The effective rate was negotiable to some extent, up to 0.2% - 0.3% below the official rate.
[11] Manski (1993) includes in his definition of "correlated effects" both these and the selection effects. For our purposes it is useful to distinguish the two. Manski also discusses the possibility that the characteristics of one's peers have a direct effect on one's decision (these are termed contextual effects). Such effects are

while selection effects could in principle be ruled out by exploiting random variation in the assignment of employees into departments, correlated effects might still be present even with random assignment.

Our identification strategy seeks to address these issues one by one. First, we exploit the fact that we have some information on the timing of the decision. Thus, we can restrict attention to the association of decisions taken by peers in an early period (January-August 2007) with individual decisions in a later period (September-December 2007). Since it is unlikely that the group is affected by an individual's future decision, this plausibly alleviates the main concerns about reflection.

A more difficult issue is the possibility of selection effects. If we consider the decision to stay in the default versus switching out, then selection is a potentially important factor. It seems reasonable to suspect that people who stick to the default tend to have different personal characteristics from people who opt out.[12] Such characteristics may also affect the particular department in which one is employed. We address this concern in two ways. First, our dataset contains information not only about the decision whether or not to opt out of the default, but also about the choice of a specific fund out of dozens that are available to the decision maker. When considering *this* choice, selection effects are less likely to be important. As we have seen in section 4 above, the fund most often chosen by people opting out of the default (fund X) is hardly exceptional. It is difficult to think of unobserved personal characteristics leading to the choice of this specific fund over other similar funds. Second, and more importantly, we rely on variation in peer behavior within departments, keeping constant any general tendencies of people in a given department. This also helps address the possibility of correlated effects.

An association between the choices of specific funds within a department might not indicate peer effects but rather the effects of the common environment faced by employees in a given department. For example, one might worry that different vendors

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not particularly relevant to the present context. In any case, whether or not we control for the average characteristics of one's peers does not significantly alter our estimation results.

[12] There is a growing marketing and social network academic literature that suggest several types of "early switchers". One group is "innovators" or "early adopters" who are intrinsically interested in new products hence willing to adopt them without the need for social approval of others (for a discussion see Rogers 1995). From a social network perspective, another potential group is "social hubs" (Goldenberg et al 2009). Social hubs are connected to many people, and therefore get the information early, and, in turn spread it to other individuals, A third early switchers group is called "market mavens", who deal with monitoring and screening the information in the social system (Feick and Price 1987). The information that we have about the employees in our sample is not sufficient to determine which group is dominant among our early switchers.

target different departments, leading to an association in the choices of employees within department. Note first that by focusing on the association of decisions taken at different points in time, we reduce the possibility of spurious correlation due to temporary shocks (e.g. marketing campaigns) that affect all employees at a given department. Furthermore, we exploit the information we have on employees' ethnicity. Specifically, we examine whether employee i's choices are affected by the (preceding) choices of peers from her ethnic group, beyond any effects that operate at the department level. While marketing efforts may well vary by departments, they are highly unlikely to vary by ethnicity within departments.

The idea of comparing correlations in behavior within and across sub-groups to help identify peer effects was developed by Munshi (2004) and employed by Duflo and Saez (2002). A possible advantage of our approach is that it employs a variable – ethnicity – which is not easily observable to outsiders yet is plausibly known to insiders. This helps alleviate concerns that vendors may target specific sub-groups according to these characteristics.[13]

The use of ethnic-specific peer groups allows us to use department fixed effects, thereby controlling for unobserved department-specific factors. That is, our estimate of peer effects is identified from variations in the choices of savings funds across ethnic groups *within* departments.

In principle, one might still worry that even an association within department and ethnic group is due to correlated rather than causal effects of the behavior of co-ethnic peers. This can happen if certain funds are for some reason more attractive to some ethnic groups than to others. If different funds target different departments, and vary in their attractiveness to different ethnic groups, then this can generate correlations within departments and ethnic groups. To capture such ethnic-specific attractiveness of funds we also include ethnic fixed effects.

To sum up, our strategy for identifying peer effects consists of estimating an equation of the form:

$$y_{ijet} = \alpha + \beta y_{j,e-i,t-1} + X'_i\gamma + \theta_j + \eta_e + \varepsilon_{ijet} \qquad (2)$$

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[13] In the previous studies, the subgroups were formed using characteristics that can be relatively easily observed by outsiders (gender, tenure, age, position in the organization). In contrast, it is often hard for an outsider to determine a person's ethnic origin (within the Jewish population), and this opacity vis-à-vis outsiders makes it hard to target a sub-group based on ethnic origin.

where y_{ijet} is the choice of a particular fund by individual i in department j and ethnicity e at time t (the second period); $y_{j,e\text{-}i,t\text{-}1}$ is the mean choice by members of ethnic group e (excluding i) in department j at time $t\text{-}1$ (the first period); X_i is a vector of individual characteristics, θ_j is a department fixed effect; and η_e is an ethnicity fixed effect. ε_{ijet} is an error term clustered at the department level.[14]

6. Results

We begin with a series of descriptive regressions examining the characteristics of employees who switched out of the default, and the within-department correlation in making this choice (Table 2). We then look more closely at the choice of particular funds or vendors (Table 3). Finally, in Table 4 and Table 5 we estimate peer effects using equation (2). For specifications with a binary dependent variable, results are qualitatively similar when using either a linear probability model (estimated by OLS), logit, or probit models. In particular, our main coefficients of interest (capturing the effect of peer choices) have the same sign and similar levels of statistical significance across all three estimation techniques. The precise magnitudes of the estimated marginal effects from probit or logit estimations are, however, sensitive to the point in the distribution at which marginal effects are evaluated.[15] For ease of interpretation and comparison to the existing literature, for the most part we report OLS estimates. In most regressions, we control for the following individual characteristics: age, gender, marital status, number of children, place of residence, years of schooling, type of institution granting highest diploma (university, college or other), academic profession, whether the employee is Jewish or not and whether the employee is tenured. In those regressions that do not include department fixed effects we also control for department location (urban or rural) and size. A detailed description of the variables used is in Appendix Table A1.

Consider first the decision whether or not to opt out of the default. Recall from Table 1 that more than 90% of the employees in our sample did not switch fund and

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[14] Since our treatment is at the department level, we allow for correlations at that level, which may be possible even with department fixed effects. Notice however that the clustering problem is not central in our setting since the main explanatory variable of interest $y_{je\text{-}i,t\text{-}1}$ varies within departments.

[15] For example, $y_{je\text{-}i,t\text{-}1}$ from equation (2) has a highly asymmetric distribution, with a large mass at zero. It is not clear whether evaluating marginal effects at the mean of this variable is the most informative marginal effect to consider. An additional issue with logit or probit is that certain dummy variables perfectly predict outcomes. Most importantly, many departments have no employees switching to fund X in the second period. Maximum likelihood estimation of the fixed effects specification is thus not possible without dropping these departments.

stayed with the default. Table 2 examines the decision to opt out. Column 1 looks at the demographic correlates of what may be called the early switchers – those employees who opted out of the default during the first eight months of 2007 – and column 2 looks at switchers during the entire period under study. The patterns are broadly similar. Consistent with previous studies, gender and tenure seem to matter for savings decisions (e.g. Huberman, Iyengar and Jiang 2007). Employees in urban departments, certain professions and certain ethnic groups are also somewhat more likely to opt out. Interestingly, neither education in general nor an economics education is associated with this decision.[16]

[Table 2]

Column 3 estimates the overall association between an employee's decision to opt out and the proportion of other employees in her department who opt out during the entire year, controlling for individual and department characteristics (equation (1) above). Columns 4 and 5 show the association between individual decisions in the second period and decisions taken by peers in the first period (with and without demographic and department controls). The results suggest very strong within-department correlations. For example, when looking at the pooled regression in column 3, a percentage point increase in the proportion of co-workers who opt out is associated with a 0.64 percentage points increase in the individual's probability to opt out. The association between an employee's choice and that of her peers in the *previous* period is even stronger.

As discussed above, these within-department correlations in choices may be partly due to common unobserved characteristics (selection effects). However, common unobserved characteristics are less likely to explain correlation in choices of specific funds. Table 3 examines the choice between the default fund, the five largest vendors described in Table 1, and the rest of the funds. The top panel shows separate OLS regressions for each fund/vendor. These regressions are similar to those reported in column 5 of Table 2, but with the choice of a specific fund/vendor as dependant variable and with the share of peers choosing each of the vendors as explanatory variables. The results for Fund X indicate significant within department correlation in choice. The estimated effects for the other (smaller) funds are mostly insignificant. It is noteworthy,

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[16] The same is true with respect to type of institution granting higher diploma, included in the unreported controls.

however, that the largest point estimates for vendors 5, 6 and 7 are for the share of peers choosing those specific vendors.

[Table 3]

The bottom panel presents an analysis of the full (multinomial) choice of the employee. Specifically, we estimate a multinomial logit model where the dependant variable is a categorical variable taking seven values according to whether the employee stayed in the default (the base outcome) or chose one of the six alternatives indicated in the table columns. The results are rather striking. For all but the smallest vendor,[17] we find a positive and statistically significant association between the likelihood of choosing that specific fund and the share of one's co-workers who chose that fund in the previous period (coefficients shown in bold type). There is also some suggestive indication of spillover effects between the choices of Fund X and Vendor 5. Finally, it is important to note that, as seen from the coefficients on the ethnicity indicators, none of the funds/vendors appears to be more or less attractive to any of the major ethnic groups.[18] Overall, the results in Table 3 seem to suggest that selection effects are not the major force driving the within-department correlation in choices.

We now come to our main results. Even if the estimated correlations in Table 3 are not due to selection effects, they could well be driven, at least partly, by common shocks at the department level (e.g. a marketing campaign). In Table 4 we examine whether an employee's decision to join a specific fund is associated with the choices of peers from her ethnic group, beyond any effects that may operate at the department level. We focus on the choice of the largest fund (there is very little within-department variation in the choices of the smaller funds).

[Table 4]

The first two columns of Table 4 show the overall association between the likelihood of an employee choosing fund X and the proportion of peers who have chosen that fund, controlling for individual and departmental characteristics. The only difference between the columns is that in column 2 we allow for non-linear effects by including a quadratic term.

In columns 3-6 we add to the regression the share of peers from one's ethnic group who chose Fund X. We report both OLS and logit estimates. The results indicate

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[17] Recall from Table 1 (third column) that by far the most popular fund in this period is Fund X, followed by vendor 7 and vendors 5 and 6.

[18] The same is true without department controls as well.

that, above and beyond the association with decisions made by peers in the department as a whole, an employee's decision is strongly affected by the decisions made by peers from her ethnic group. The estimates in column 3 suggest that a one percentage point increase in the share of co-ethnic peers who chose Fund X in the first period is associated with a 0.325 percentage point increase in the likelihood of choosing that fund in the second period – controlling for the overall share of peers who chose Fund X. Notice that, unlike the effect of choices by members of own ethnic group, it is hard to say whether and to what extent the association with this overall share (0.512, top row) is due to peer effects and how much of it reflects department-level shocks. Exploring non-linear effects, the estimates in column 4 suggest a decreasing marginal effect. That is, the effect of the first employees who choose fund X on the choices of their peers appears to be larger than the effect of additional employees making this choice. The results of the logit estimations (columns 5 and 6) are qualitatively similar.

Columns 7-8 present our main result. We estimate the effect of co-ethnic peers controlling for department fixed effects (equation (2)). That is, we now examine whether individuals are more likely to choose a particular fund the higher the proportion of members of their ethnic group who chose this same fund – beyond any general tendencies of certain departments to choose that fund due to marketing or other factors related to the common institutional environment. The results are striking. Employees in the *same* department are significantly more likely to choose fund X the higher the proportion of co-ethnics in that department who chose that fund. The point estimates from column 8 seem consistent with decreasing marginal effects, but the coefficients are not precisely estimated. Finally, as seen from the estimated coefficients on the ethnicity indicators, and consistent with the results in Table 3, the four main ethnic groups do not differ in their overall propensity to choose Fund X. In other words, it does not appear to be the case that fund X is more attractive to one ethnic group than to another. The most plausible interpretation of these results is thus the existence of strong ethnic peer effects.

[Table 5]

Finally, Table 5 restricts attention to two specific subsamples using identical specifications as in columns 7-8 in Table 4. First, columns 1-2 report the results of logit estimation. This requires the exclusion of observations where the outcome is perfectly predicted by one of the dummy variables included. Most importantly, it excludes departments in which no employee switched to fund X in the second period. Despite the

smaller sample, the results are qualitatively similar to those in Table 4: choice of fund X is strongly associated with the choices of that fund by co-ethnic peers.[19]

Second, about half of the employees in our sample are concentrated in thirteen large departments, i.e. departments with over 200 employees. One might therefore worry that the results are driven by what happened in a small number of departments. In columns 3-4 we exclude these large departments. The results are again similar to the ones obtained in Table 4.[20]

7. Qualitative evidence from interviews

To complement our empirical results we conducted structured interviews with a sample of our investigated population. Conducting interviews (rather than sending out questionnaires) allows us to validate the true identity of the person answering the questions and the time and effort spent in answering them. We use a closed fixed response interview, in which all interviewees are asked the same set of questions with the same set of multiple-choice answers.[21]

A total of 150 employees were randomly sampled from three different strata as follows. Forty employees from the group of employees who remained in the default fund; sixty employees from the group who chose Fund-X; and fifty employees who switched to non-X funds. Of these, 13, 45 and 19 (respectively) agreed to participate and completed the interviews, for a total of N=77.[22] The interviews were conducted during 2008. Each interview was conducted at the employee's workplace. Those that agreed to be interviewed received a small reward (thermos cup) for their participation.

Most of the employees in our sample think that their fund choice is an important decision. When asked to rank the importance of five different important decisions – buying home furniture; buying a car; choosing a career path; choosing which area to live in; and choice of savings fund – 75% rank the choice of savings fund as one of the three most important decisions (10% ranked it last). Further, when asked how frequently they check their fund's performance, 21% of the employees interviewed claim they do it

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[19] OLS estimates on this sub-sample are almost identical to Table 4 columns 7-8.
[20] The estimated peer effects are stronger when restricting attention to even smaller departments (less than 100 employees). This is not surprising: it seems plausible that department-level peer effects are stronger in smaller units where employees are more familiar with each other.
[21] A detailed analysis of the interviews appears in Mugerman (2010). In this section we focus on those questions most relevant to the present study.
[22] The low participation rate of default-individuals may in itself indicate their relative lack of interest in this issue, relative to the other two groups.

monthly, while 69% of them claim that they do it quarterly. Only 10% say they never check it or check it annually.

Survey participants were also asked which indicators if any, out of several publicly available indicators, they examine to evaluate fund performance. 74% of the employees pointed to the fund's past rate of return; 35% mention the fund's management fees; 35% mention comparative returns relative to other funds; while only 4% mention risk measurement. The relatively low number of respondents who mentioned management fees is interesting, given that this is an important, predictable, and easily understood indicator. However, when asked what the return of their fund was in the previous year, 64% say that they do not know. Further, out of those who claim they do know the fund's return, fully one half gave a number which is wrong by more than 1 percentage point.

The last and perhaps most important question asks "who did you consult with before deciding to switch to your current fund?" The options were: a. bank consultants; b. co-workers; c. supervisors; d. friends outside of work; e. family; f. others; and g. I did not consult with anyone. The results are in Figure 4. By far the most important factor mentioned was co-workers (55%) followed by no-one (28%) and family (27%).[23] This is consistent with our interpretation of the empirical findings as indicating peer effects in actual choice of funds.

[Figure 4]

8. Conclusion

Savings decisions are among the most important financial decisions most individuals make. Yet these decisions are not well understood. This complicates the design of policy reforms to improve the quality of financial decisions. This paper exploits a large and detailed dataset that allows us to shed some light on how these decisions are made. Our first finding is that a drastic and highly-publicized regulatory reform allowing savers to switch saving plans did not result in many savers actually switching. Most employees remained with the default option. Furthermore, while the reform did lead to an increase in the number of funds, the increased choice given to consumers did not result in clearly improved terms. Data we obtained from the Israeli Ministry of Finance indicates

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[23] These results are in line with Benartzi and Thaler (2007) that indicated that investors' advisors tend to be their peers and friends who don't necessarily qualify as financial expert.

that if anything, management fees have increased. The average management fee in the provident fund industry in 2004, just prior to the reform was 0.47% whereas in 2007, the period we study, it was 0.65% and by 2008 it has reached 0.8%. The average management fees for the period 1999-2005 was 0.49% while the average fees for the period 2006-2011 was 0.74%.[24]

Beyond documenting the overall low number of switches across funds, our data allows for a deeper investigation into the details of individual savings decisions. We find that even when individuals choose to opt out of the default, the considerations guiding their decisions seem to be quite different from what one would expect given observable measures of performance (risk, returns, management fees). Rather, individuals seem to be strongly influenced by their peers, who are not necessarily experts in the subject matter. Indeed, individuals seem to be more strongly influenced by those peers who happen to share their ethnic background.

There are several potential explanations for this behavior. One possibility is "keeping up with the Joneses". In Gomez, Priestley and Zapatero (2009) the joneses preferences depend on peer's wealth and Demarzo, Kaniel and Kremer's (2004) agents hedge against price fluctuations of a local good which is in short supply. In our context, we find it less appealing to argue that one ethnic group in a particular department is hedging different local goods than the others in the same department. Another prominent explanation has to do with information and observational learning (e.g. Bikhchandani et al., 1992; Banerjee, 1992 among others). However, as recently emphasized by Eyster and Rabin (2011), rational observational learning does not necessarily (or even typically) lead to the imitation of predecessors and can in fact lead individuals to contradict the behavior they observe. But even if observational learning is an important component of what we observe, our results highlight the importance of understanding who it is that people learn from and imitate. The most knowledgeable may not be the most influential.

These patterns can have important implications for the design of effective financial reforms. Promoting more choice for savers, even if this is accompanied by increased competition between funds, does not guarantee improvements in savings choices. Our results suggest that the outcomes of financial reforms can be strongly influenced by social dynamics. The results therefore indicate the need to investigate

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[24] There are many potential causes for such an increase. This issue is beyond the scope of this paper. For our purposes it is interesting to note that in the years before the reform management fees were stable, whereas following the reform we observe a substantial increase.

further the possibilities for workplace seminars and financial education programs as integral parts of a reform that introduces more choice to consumers. Such communication programs should accompany the reform from its earliest stages. Early and informative campaigns may have substantial long-term effects by affecting early savings decisions and harnessing the power of peer effects.

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Figure 1: Performance of the Funds Chosen by Employees, 2007
(Means, yearly data. Capped ranges indicate 95% confidence intervals)

Panel A: Rate of Returns
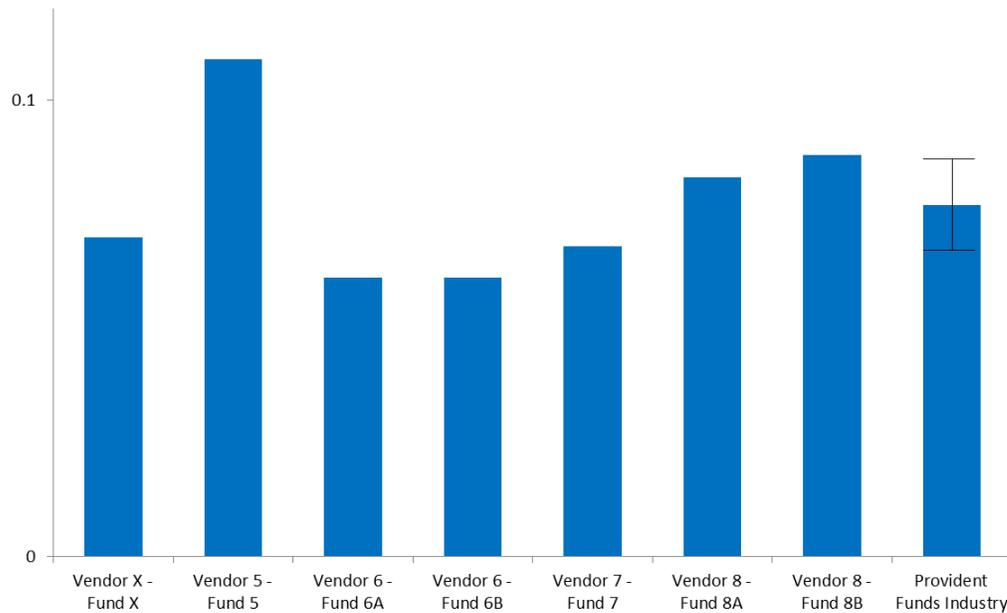
Panel B: Sharpe Ratios
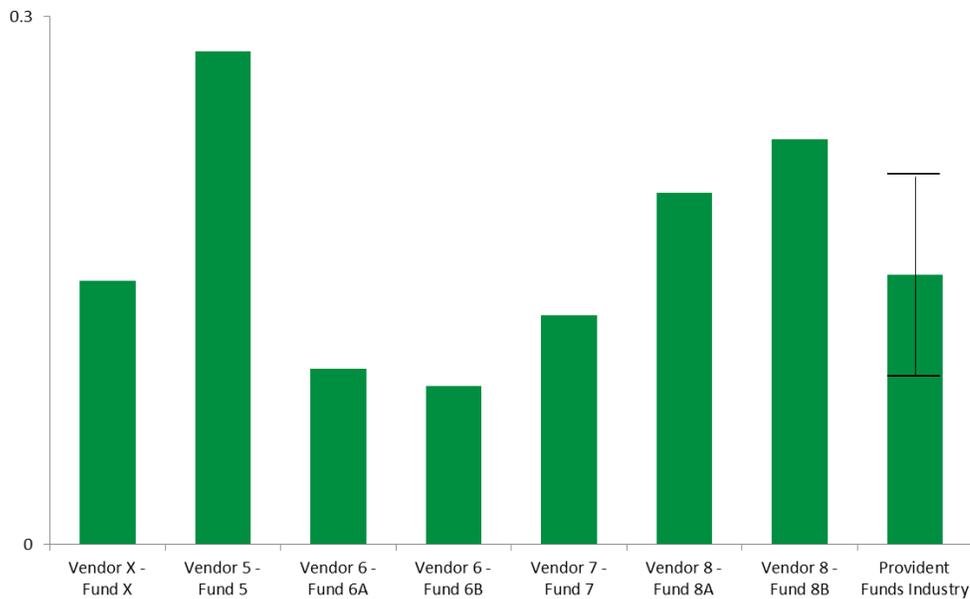
This figure shows the rates of return and Sharpe ratios of provident funds chosen by most employees who opted out of the default fund. The data were publicly available at the Israeli Ministry of Finance website (GemelNet). The returns were calculated by GemelNet for the period 12/2006 - 12/2007. The Provident Funds Industry category shows the simple mean (and 95% confidence interval) across all provident funds that existed the entire year and whose performance is available from GemelNet (200 provident funds).

Figure 2: Fund X and the Average Provident Funds Returns, 9/2006-8/2008
(Monthly returns, percent)
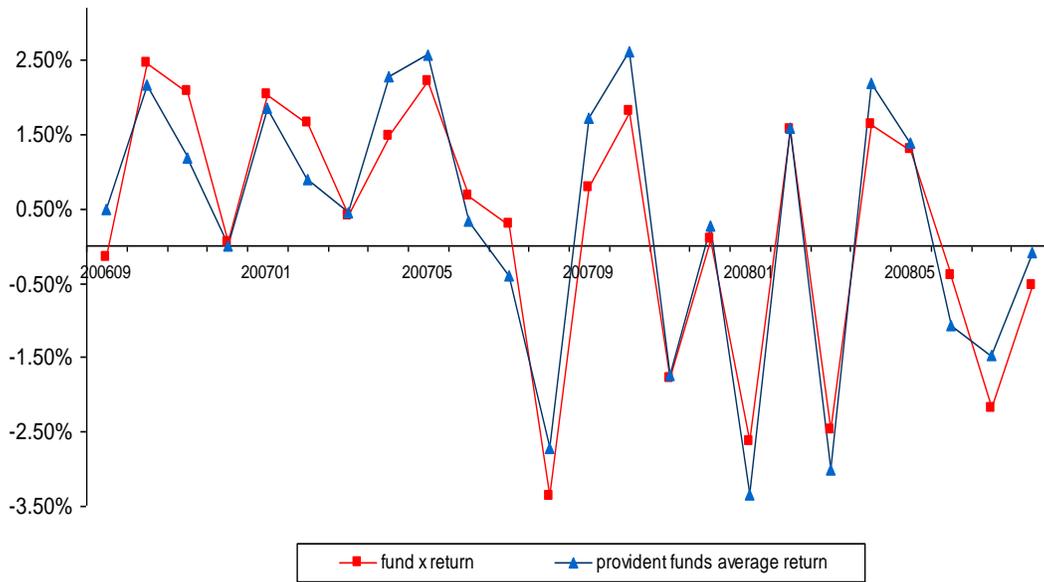
This graph illustrates the monthly rates of returns for the Fund X and the average return of the Provident Funds Industry during the period 9/2006 - 8/2008. The data was obtained from GemelNet (Israeli Ministry of Finance website). The average Provident Funds Industry variable was calculated by GemelNet as a simple mean of the total available population of provident funds during each particular month. The Y axis represents the return value in the percentage for the given calendar month. It is clear from the graph that there is a strong correlation between Fund X monthly returns and the Provident Funds Industry average monthly returns, which means that fund X doesn't provide different returns in terms of "betting the market", and is not exceptional.

Figure 3: Assets Managed by Fund X Versus its Excess Monthly Rates of Returns, 9/2006-8/2008

(Millions of NIS, percentage)
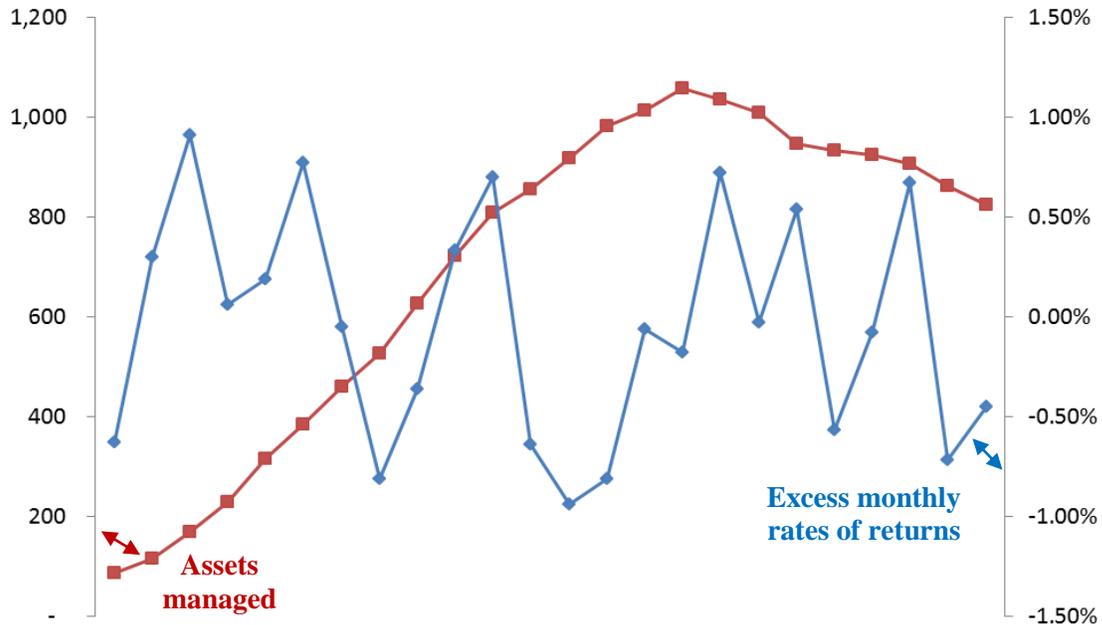
This graph illustrates two variables. The first variable is the Fund X excess monthly rates of returns, calculated as a simple difference between Fund X monthly returns in percentage and average Provident Funds Industry monthly returns in percentage, during the period 9/2006 - 8/2008. The Right Y axis represents this difference for the given calendar month. The second variable is assets managed by Fund X. This variable is calculated as cumulative amount of assets managed by Fund X at the end of calendar month (represented at axis X), during the period 9/2006 - 8/2008. The Left Y axis represents this value in millions of NIS for the given month. The graph doesn't suggest that the change of assets managed by Fund X could be explained by excess monthly rates of returns.

Figure 4: Who did you consult with before deciding to switch to your current fund?
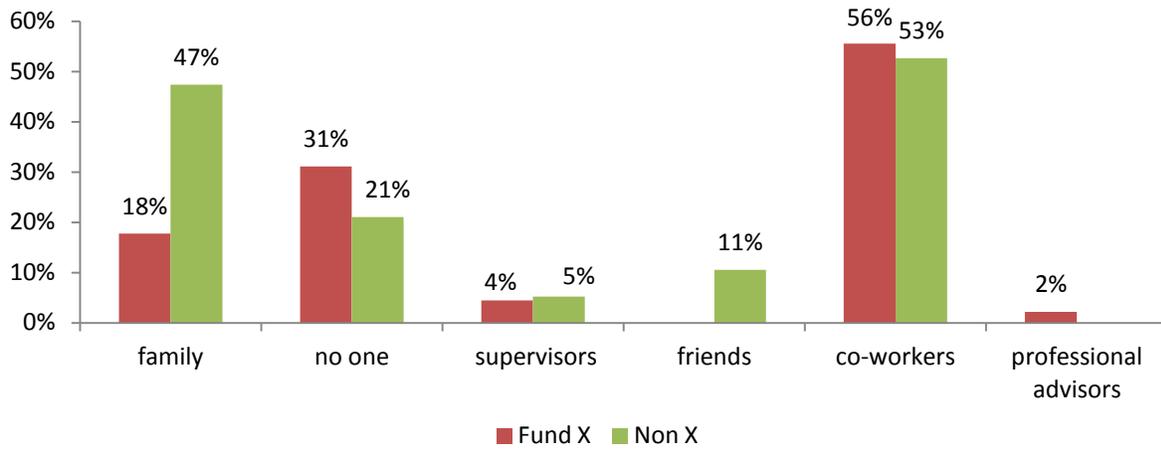
Responses to structured interviews conducted with a subsample of the employees who switched out of the default (N=64).

Table 1 – Summary of Fund Choices

	Period 1, 1-8/07	Period 2, 9-12/07	Two periods pooled	Mean of within-department proportions; two periods pooled
Opting out of the default	280 [0.026]	457 [0.043]	737 [0.069]	0.045 {0.056}
Enrollment into fund X	161 [0.015] (57%)	312 [0.029] (68%)	473 [0.044] (64%)	0.026 {0.047}
Enrollment into vendor 5 funds	11 [0.001] (4%)	30 [0.003] (7%)	41 [0.004] (6%)	0.003 {0.012}
Enrollment into vendor 6 funds	28 [0.003] (10%)	9 [0.001] (2%)	37 [0.003] (5%)	0.001 {0.004}
Enrollment into vendor 7 funds	46 [0.004] (16%)	27 [0.003] (6%)	73 [0.007] (10%)	0.006 {0.015}
Enrollment into vendor 8 funds	18 [0.002] (6%)	6 [0.001] (1%)	24 [0.002] (3%)	0.003 {0.013}
Enrollment into other funds	16 [0.002] (6%)	73 [0.007] (16%)	89 [0.008] (12%)	0.006 {0.018}

Notes: The first three columns show the number of employees who opt out of the default by the end of each period and their proportion in the population [in brackets]. The first row shows the total number of switchers and the other rows show their distribution across funds, with percentage out of the total number of switchers (in parentheses). The last column shows the mean across departments of the within-department proportion of employees who opted out or chose a particular fund, with standard deviation {in braces}.

Table 2 – Opting Out of the Default

	Decision to Opt Out of the Default in Period 1	Decision to Opt Out of the Default (two periods pooled)		Decision to Opt Out of the Default in Period 2	
	(1)	(2)	(3)	(4)	(5)
Share of Peers Who Opted Out			0.643***		
			(0.072)		
Share of Peers Who Opted Out in Period 1				0.980***	0.739***
				(0.186)	(0.210)
Tenured (indicator)	0.043***	0.073***	0.073***		0.033***
	(0.007)	(0.010)	(0.010)		(0.008)
Age	0.000	0.001	0.000		0.001
	(0.001)	(0.001)	(0.001)		(0.001)
Married	-0.002	0.026***	0.025***		0.027***
	(0.006)	(0.008)	(0.008)		(0.006)
Education	0.001	0.004	0.001		0.002
	(0.002)	(0.002)	(0.003)		(0.002)
Male	0.013***	0.026***	0.022***		0.012**
	(0.004)	(0.006)	(0.007)		(0.005)
Economist (indicator)	0.016	-0.002	-0.020		-0.022*
	(0.022)	(0.029)	(0.027)		(0.013)
Engineer (indicator)	0.006	0.015	0.002		0.004
	(0.004)	(0.015)	(0.013)		(0.013)
Industrial engineer (indicator)	-0.001	-0.037***	-0.029**		-0.029***
	(0.011)	(0.013)	(0.012)		(0.010)
MD (indicator)	0.008	0.016	0.011		0.006
	(0.007)	(0.011)	(0.011)		(0.008)
Urban Department Location (indicator)	0.020***	0.017	0.000		-0.021
	(0.007)	(0.013)	(0.007)		(0.013)
Jewish (indicator)	0.004	0.028***	0.015		0.018**
	(0.006)	(0.011)	(0.011)		(0.007)
Ethnic Origin North Africa	0.016***	0.020**	0.017*		0.003
	(0.005)	(0.010)	(0.010)		(0.008)
Ethnic Origin Europe	0.014**	0.024**	0.023**		0.011
	(0.006)	(0.011)	(0.011)		(0.008)
Ethnic Origin Former SU	0.008*	0.023**	0.016*		0.013
	(0.004)	(0.011)	(0.009)		(0.009)
Ethnic Origin Middle East	0.012**	0.021*	0.017		0.009
	(0.005)	(0.011)	(0.011)		(0.008)
Other Individual and Department Controls	Yes	Yes	Yes	No	Yes
Observations	10,716	10,716	10,716	10,436	10,436
R^2	.024	.055	.068	.012	.045

Notes: OLS, standard errors clustered at the department level in parentheses. Dependent variable is an indicator variable for opting out of the default fund. Main explanatory variable is the share of i's department members (excluding i) who opted out of the default fund. Columns 4-5 exclude employees who have already opted out of the default fund in period 1. Unreported controls include number of children, place of residence, type of institution granting highest diploma (university, college or other) and department size. All regressions exclude departments with less than 3 workers and include 98 departments. ***=Significant at the 1 percent level **. =Significant at the 5 percent level. *=Significant at the 10 percent level.

Table 3 – Choosing Savings Funds
(All funds chosen by more than ten employees in period 1)

	Fund X (1)	Vendor 5 (2)	Vendor 6 (3)	Vendor 7 (4)	Vendor 8 (5)	Other Funds (6)
Linear probability model (six independent regressions)						
Share of Peers Who Chose Fund X in Period 1	0.801*** (0.206)	0.035 (0.036)	-0.002 (0.008)	0.024 (0.021)	0.000 (0.008)	-0.100 (0.081)
Share of Peers Who Chose Vendor 5 in Period 1	1.789 (1.898)	0.610 (0.424)	-0.039 (0.052)	-0.039 (0.061)	-0.007 (0.024)	-0.193 (0.287)
Share of Peers Who Chose Vendor 6 in Period 1	0.730 (0.855)	0.183 (0.201)	0.111 (0.113)	-0.135 (0.132)	-0.015 (0.097)	0.444 (0.514)
Share of Peers Who Chose Vendor 7 in Period 1	-0.132 (0.497)	0.181 (0.155)	0.065 (0.070)	0.215* (0.126)	-0.035 (0.042)	0.364* (0.194)
Share of Peers Who Chose Vendor 8 in Period 1	-0.221 (0.148)	-0.042 (0.046)	-0.020 (0.016)	0.025 (0.085)	0.023 (0.028)	-0.092 (0.085)
Share of Peers Who Chose Other Funds in Period 1	-0.235 (0.710)	-0.004 (0.074)	-0.072* (0.042)	0.158 (0.128)	0.024 (0.047)	-0.181 (0.318)
Observations	10,436	10,436	10,436	10,436	10,436	10,436
R^2	0.038	.010	.006	.009	.004	.011
Multinomial logistic model (joint regression)						
Share of Peers Who Chose Fund X in Period 1	**24.102*** (4.924)**	12.123 (8.868)	-9.512 (14.307)	12.996* (7.391)	-2.844 (19.202)	-19.896 (21.483)
Share of Peers Who Chose Vendor 5 in Period 1	58.016** (25.796)	**82.360*** (30.979)**	-1.001 (37.302)	-8.470 (51.555)	19.264 (25.959)	-32.694 (121.459)
Share of Peers Who Chose Vendor 6 in Period 1	40.039 (26.339)	96.265 (73.781)	**133.198** (64.875)**	-59.067 (50.095)	2.958 (109.844)	77.250 (50.543)
Share of Peers Who Chose Vendor 7 in Period 1	9.944 (17.932)	33.366 (29.833)	31.824 (24.340)	**52.148** (23.177)**	-11.668 (45.432)	46.361** (19.796)
Share of Peers Who Chose Vendor 8 in Period 1	-28.309 (25.937)	-49.544 (73.194)	-116.458** (56.814)	10.991 (14.776)	**6.934 (13.704)**	-13.943 (30.418)
Share of Peers Who Chose Other Funds in Period 1	-7.556 (38.431)	10.771 (46.353)	-257.626 (157.255)	42.875 (29.497)	58.808 (52.158)	-28.562 (85.181)
Ethnic Origin North Africa	0.386 (0.321)	-0.455 (0.685)	-0.641 (1.373)	0.813 (1.275)	.	-0.399 (0.410)
Ethnic Origin Europe	0.327 (0.315)	0.358 (0.804)	-0.602 (1.405)	1.016 (1.408)	-1.234 (1.225)	0.295 (0.362)
Ethnic Origin Former SU	0.506 (0.373)	-0.591 (1.043)	-0.339 (1.533)	1.096 (1.334)	-0.654 (1.461)	0.364 (0.360)
Ethnic Origin Middle East	0.329 (0.341)	0.009 (0.777)	-0.026 (1.340)	0.663 (1.162)	0.019 (1.366)	0.256 (0.432)
Observations	10,436					
Pseudo R^2	0.179					

Notes: OLS regressions are reported in the top panel, where each of the six columns represents an independent regression with an indicator dependent variable for choice of the specific fund or vendor in the column title. A multinomial logistic regression is reported in the bottom panel. The categorical dependent variable includes the categories in the column titles and the base outcome is the default fund (the most frequent outcome). Robust standard errors, clustered at the department level are in parentheses. All regressions control for Jewish indicator, ethnicity indicators, age, gender, marital status, number of children, place of residence, years of education, type of institution granting highest diploma (university, college or other), academic profession, whether the employee is tenured, department location (urban or rural) and department size; and exclude employees who have already opted out of the default fund in period 1. All regressions exclude departments with less than 3 workers and include 98 departments.

***=Significant at the 1 percent level **.=Significant at the 5 percent level. *=Significant at the 10 percent level.

Table 4 – Peer Effects

(Dependent variable = dummy variable indicating individual's choice of fund X in period 2)

	OLS				Logit		OLS (department FE)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Share of Peers Who Chose Fund X in Period 1	0.828*** (0.239)	1.261** (0.614)	0.512* (0.268)	0.782 (0.602)	16.872*** (6.087)	42.430** (16.868)		
Squared Share of Peers Who Chose Fund X in Period 1		-5.168 (5.613)		-4.083 (5.434)		-232.140* (129.566)		
Share of Co-Ethnic Peers Who Chose Fund X in Period 1			0.325*** (0.078)	0.540*** (0.107)	5.889*** (1.764)	11.051*** (3.246)	0.317*** (0.079)	0.417*** (0.100)
Squared Share of Co-Ethnic Peers Who Chose Fund X in Period 1				-0.959** (0.412)		-20.253** (9.580)		-0.463 (0.432)
Ethnic Origin North Africa	0.007 (0.006)	0.007 (0.006)	0.003 (0.006)	0.000 (0.007)	0.350 (0.322)	0.201 (0.336)	0.003 (0.006)	0.002 (0.006)
Ethnic Origin Europe	0.007 (0.005)	0.007 (0.005)	0.006 (0.005)	0.005 (0.005)	0.332 (0.289)	0.222 (0.272)	0.005 (0.005)	0.004 (0.005)
Ethnic Origin Former SU	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)	0.532 (0.365)	0.508 (0.359)	0.007 (0.006)	0.007 (0.006)
Ethnic Origin Middle East	0.005 (0.006)	0.005 (0.006)	0.004 (0.006)	0.003 (0.006)	0.341 (0.324)	0.253 (0.307)	0.002 (0.006)	0.001 (0.006)
Observations	10,436	10,436	10,345	10,345	10,153	10,153	10,345	10,345
R^2 / Pseudo R^2	.037	.037	.039	.040	.148	.159	.060	.060
Department Fixed Effects	No	No	No	No	No	No	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Department Controls	Yes	Yes	Yes	Yes	No	No	No	No

Notes: OLS regressions are reported in Columns 1-4 and 7-8; Columns 5-6 report estimations of logit regression model. Robust standard errors, clustered at the department level are in parentheses. Unreported individual controls include Jewish indicator, age, gender, marital status, number of children, place of residence, years of education, type of institution granting highest diploma (university, college or other), academic profession, whether the employee is tenured. Unreported department controls include location and size. All regressions exclude employees who have already opted out of the default fund in period 1 and departments with less than 3 workers and include 98 departments. ***=Significant at the 1 percent level **.=Significant at the 5 percent level. *=Significant at the 10 percent level.

Table 5 – Robustness Checks

(Dependent variable = dummy variable indicating individual's choice of fund X in period 2)

	Logit (department FE)		OLS (department FE) Excluding large departments	
	(1)	(2)	(3)	(4)
Share of Co-Ethnic Peers Who Chose Fund X in Period 1	6.147***	9.366***	0.324***	0.532***
	(1.788)	(3.528)	(0.086)	(0.089)
Sq. Share of Co-Ethnic Peers Who Chose Fund X in Period 1		-11.383		-0.836**
		(9.541)		(0.482)
Ethnic Origin North Africa	0.210	0.123	-0.006	-0.009*
	(0.302)	(0.329)	(0.006)	(0.005)
Ethnic Origin Europe	0.188	0.130	0.001	0.000
	(0.244)	(0.250)	(0.005)	(0.005)
Ethnic Origin Former SU	0.386	0.355	0.002	0.001
	(0.311)	(0.316)	(0.006)	(0.006)
Ethnic Origin Middle East	0.197	0.148	0.001	-0.001
	(0.292)	(0.294)	(0.005)	(0.005)
Departments	42	42	85	85
Observations	6,921	6,921	5,125	5,125
R^2 / Pseudo R^2	.138	.139	.054	.055
Department Fixed Effects	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
Department Controls	No	No	No	No

Notes: Each column represents a different regression. Robust standard errors in parentheses are clustered at the department level. Unreported individual controls include Jewish indicator, age, gender, marital status, number of children, place of residence, years of education, type of institution granting highest diploma (university, college or other), academic profession, whether the employee is tenured. Unreported department controls include location and size. Logit model regressions are reported in Columns 1-2. Columns 3-4 report OLS estimations of *the restricted sample* (excluding departments with over 200 employees). All regressions exclude employees who have already opted out of the default fund in period 1 and departments with less than 3 workers. ***=Significant at the 1 percent level **.=Significant at the 5 percent level. *=Significant at the 10 percent level.

Appendix Table A1: Variables Description

Variable	Description	Remarks
Choice of fund	There are 59 chosen options, including default selection (among over 200 potential options).	The dependent variable.
Residence	There are 6 regions: Dan district (Tel Aviv), Jerusalem district, North region, South region, Haifa district, Other.	
Ethnic Origin	The country of birth of paternal grandfather. There are five groups: North African immigrants and their Israeli-born offspring - Sephardic North Africa, Middle East (Asian immigrants and their Israeli-born offspring) - Sephardic Asia, Former Soviet Union, Ashkenazi (European and American immigrants and their Israeli-born offspring), Other.	
Academic profession	Economists, Engineers, Industrial Engineers, MDs, Other.	
Education	Years of schooling.	
Department	103 autonomous departments.	
Department size	Number of employees in the departments.	