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THE EFFECT OF WORKPLACE PENSION SCHEMES  
ON HOUSEHOLDS' PRIVATE SAVINGS

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## ABSTRACT

The tax incentive enjoyed by workplace pension schemes could encourage participants to increase their total savings or, alternatively, crowd out savings that would have materialised in other financial vehicles in the absence of this incentive. This article uses data from the Spanish Survey of Household Finances to estimate the additional savings generated by this type of scheme. To this end, the financial position of workplace pension scheme participants is compared to that of a group of workers of similar ages, with similar educational attainment levels and occupations, but who do not participate in such schemes. Once the comparable group is constructed, it can be seen that, on average, each euro saved in workplace pension schemes increases private savings by around 66 cents. This is the ratio of the difference in average net wealth between participants and their comparable group (€13,600) to the average amount accumulated in pension schemes (€20,600). Once adjusted for the fact that contributions are tax-exempt, the additional savings generated amount to around 31 cents for every euro contributed, calculated as the ratio of the €6,500 difference in tax-relief-adjusted wealth between the two groups to the average amount accumulated in workplace pension schemes.

**Keywords:** workplace pension scheme, participants, net wealth, saving, financial asset wealth.

**JEL classification:** D14, E21, H24, H30, J32.

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### Introduction

Workplace pension schemes are financial products whose purpose is to encourage saving for retirement. They differ from personal pension schemes in that the employer makes contributions to the employee's pension fund in addition to those of the pension fund holder, which build up over the employee's working life.

As in personal pension schemes, workplace pension scheme participants deduct both their own and their employer's contributions from their taxable income (up to a limit) and the amount invested is accumulated with the tax-free returns generated. However, once the money in this fund is claimed after retirement (as a regular income stream or a lump sum) and can actually be used for consumption, this income becomes part of the taxable income. Deferring taxation to the time of retirement means that income is taxed when it can be used for consumption.<sup>1</sup>

In Spain, workplace pension schemes are not very widespread. According to the third wave of the European Household Finance and Consumption Survey (HFCS), the percentage of employees with workplace pension schemes in Spain (6%) is lower than in Germany (13%) or Slovakia (34%), and higher than in Italy (3.7%) or France (5%) (see Chart 1). In the United Kingdom, 60% of employees have a workplace pension scheme, although, admittedly, employees are automatically enrolled into workplace pension schemes since 2012.<sup>2</sup>

Recently, Law 22/2021 on the State Budget has increased the exemption threshold for contributions to workplace pension schemes to €8,500, while reducing the exemption limit for personal schemes. The question therefore arises as to the extent to which tax incentives for workplace pension schemes can generate new savings.

On the one hand, deduction of contributions from the taxable income increases the return on savings. This is because, by saving using this product, participants reduce their taxable income over their working life, when the marginal rate is relatively high, and transfer the tax burden to retirement, when their marginal tax rate is lower. On the other,

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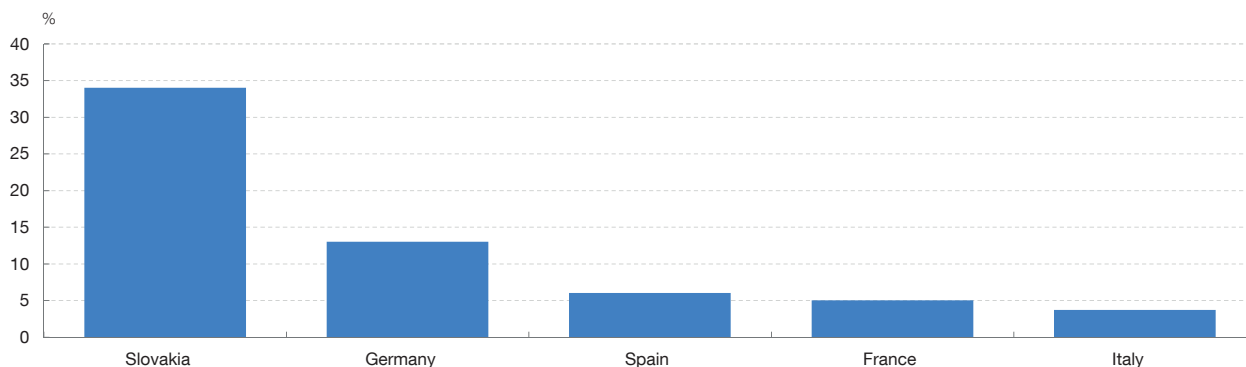
1 See Mirrlees et al. (2011), Chapters 13 and 14.

2 See Cribb and Emmerson (2020), Chart 1.

Chart 1

**PERCENTAGE OF EMPLOYEES WITH WORKPLACE PENSION SCHEMES**

The percentage of employees with workplace pension schemes varies across euro area countries. According to the third wave of the European Household Finance and Consumption Survey (HFCS), 6% of employees in Spain have a workplace pension scheme. The highest percentage in this survey can be found in Slovakia (34%), and the lowest in Italy (3.7%). The figures for most countries are for 2017.



SOURCE: HFCS.



some taxpayers could be leaving their total savings unchanged, simply adjusting their portfolio to invest in tax-privileged financial vehicles while reducing their holdings in other financial vehicles.<sup>3</sup> In sum, it is important to determine whether these contributions are promoting additional savings in the economy (in which case employees with a workplace pension scheme would save more than the rest of the population, net of tax incentives) or whether employee savings would have been the same regardless (i.e. the contributions merely shift savings to other vehicles without increasing total net wealth).

Findings vary across studies. The available evidence for Denmark suggests that employer contributions translate entirely into private savings. Retirement saving decisions have a large inertial component, meaning that participants leave the rest of their portfolio untouched when their employers change the amount contributed. Because of this inertial component, in Denmark personal pension schemes do not appear to generate new savings. Indeed, in order to generate new savings, contributions to personal schemes would need to increase in line with the tax incentive, but the Danish case study reveals a very limited response. In the United States workplace pension schemes have a greater crowding-out effect, and it is estimated that every dollar contributed represents 50 cents of new private savings and around 25 cents of additional savings (when tax incentives are taken into account).<sup>4</sup>

<sup>3</sup> See Bernheim (2002).

<sup>4</sup> See Chetty et al (2014) for the Danish case and Benjamin (2003) or Gelber (2011) for the United States. For the United Kingdom, Cribb and Emmerson (2020) find that automatic enrolment into workplace pension schemes is associated with an increase in participation in pension schemes of around 40 percentage points (pp). This study does not estimate the effect of pension schemes on total household savings.

Table 1

**NUMBER OF PENSION SCHEMES AND CONTRIBUTIONS ACCORDING TO DIFFERENT SOURCES**

Sources	Ministry of Economic Affairs, Industry and Competitiveness	Spanish Survey of Household Finances (EFF)
2008		
Number of participants	1,927,385	624,772
Updated value (a)	28,866	19,893
Annual contributions (employer + participant) (a)	1,759	1,933
Average balance	14,977	31,841
Average annual contribution per scheme	913	3,093
2011		
Number of participants	2,209,388	721,270
Updated value (a)	31,741	11,745
Annual contributions (employer + participant) (a)	1,642	1,640
Average balance	14,366	16,284
Average annual contribution per scheme	743	2,274
2014		
Number of participants	2,096,733	1,028,458
Updated value (a)	35,353	23,024
Annual contributions (employer + participant) (a)	1,100	2,051
Average balance	16,861	22,387
Average annual contribution per scheme	524	1,995
2017		
Number of participants	2,023,447	1,086,728
Updated value (a)	35,702	17,162
Annual contributions (employer + participant) (a)	1,223	952
Average balance	17,644	15,792
Average annual contribution per scheme	605	876

**SOURCES:** Banco de España, based on data from the EFF, and Ministerio de Economía, Industria y Competitividad.

**a** Millions of current euro. All other monetary figures are expressed in current euro.

This article uses data from waves 2005 to 2017 of the Spanish Survey of Household Finances (EFF) to analyse the sociodemographic and employment characteristics of employees participating in workplace pension schemes. It then estimates whether pension scheme contributions crowd out savings and to what extent.

## Workplace pension schemes in Spain

Table 1 combines the results from the EFF with data from the Ministry of Economic Affairs and Digital Transformation to document the prevalence of workplace pension schemes in Spain. According to these data, in Spain there were roughly two million workplace pension scheme participants in 2008. Between 2008 and 2011 this

number increased by 10% and then stabilised again at around two million. According to this source, average accumulated funds over the period amounted to approximately €15,000 (current). The average contribution was approximately €913 per year in 2008 and €605 in 2017 (combining the contributions made by both participants and employers). The adjusted overall value of workplace pension schemes has risen by around 10% every three years, with an increase of 24% between 2008 and 2017.

If we compare the aggregates collected by the Ministry and those reported in the EFF, the number of pension schemes declared in the EFF is roughly half that reported by the Ministry. In the latest wave of the EFF (corresponding to 2017), aggregate contributions are also 20% lower than according to Ministry data.<sup>5</sup> However, the EFF enables the characteristics of pension scheme participants – such as age, educational attainment level, type of employer, wage, wealth composition and debt – to be studied. It also makes it possible to compare these characteristics with those of employees who do not participate in this type of scheme, and thus determine whether or not there is any crowding-out effect on savings. With this in mind, this source will be used from hereon in.

According to the EFF, between 2005 and 2017 around 80% of workplace pension scheme participants reported that their employer was making contributions. Throughout this period, employers contributed approximately €1,200 on average (in 2017 euro), while participants contributed €670. However, these amounts have changed over the various waves, with the average total contribution in 2017 standing at around €876 per plan. The average amount accumulated per workplace pension scheme participant is €20,600 (in 2017 constant euro), although the median amount is considerably lower (around €5,000).

## Characteristics of workplace pension scheme participants

To identify the characteristics of workplace pension scheme participants, it is useful to compare this group with other respondents aged 25-64 who are or have been employees.<sup>6</sup>

Between 2005 and 2017 the average age of workplace pension scheme participants was 46, while non-participants were three years younger on average. 60% of workplace pension scheme participants were men, while among the rest, the proportion of men and women was similar (50%) (see Table 2).

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5 One possible reason for this discrepancy is that, according to the Ministry of Economic Affairs and Digital Transformation (2017), no contributions are made in approximately 66% of workplace pension schemes. By contrast, in the 2017 EFF 44% of participants report that their employer does not make any contributions. It is possible that some of the workplace pension schemes that are classified as active are being claimed partially (a category excluded from the EFF).

6 We only take into account current or former employees aged 25-64 who do not participate in a workplace pension scheme.

Table 2

**CHARACTERISTICS OF EMPLOYEES WITH AND WITHOUT WORKPLACE PENSION SCHEMES**

As a percentage of the group in the column

	Workplace pension scheme	No workplace pension scheme
Age (average)	46.6	43.0
Under 35	10.9	26.8
35-45	33.7	29.8
46-55	31.6	24.4
Over 55	23.8	19.0
Sex		
Female	39.2	50.6
Male	60.8	49.4
Educational attainment		
Below secondary education	15.5	51.8
Secondary education	38.3	28.6
University education	46.2	19.5
Firm size		
Under 10 workers	1.4	15.6
10-19 workers	4.0	8.0
20-99 workers	7.9	13.7
100-500 workers	10.6	8.5
Over 500 workers	67.3	17.2
Economic activity		
Financial activities	22.1	4.3
Public administration	18.6	5.0
Education	7.6	4.0
Agriculture	0.6	6.8
Manufacturing	8.5	12.1
Hotels and restaurants	5.5	6.1
Employment income		
Employment income (average)	38,624.4	14,991.9

**SOURCES:** Banco de España, based on data from the Spanish Survey of Household Finances (2005-2017).

The differences are particularly marked in terms of level of educational attainment, type of employer and sector of activity. About one-half of workplace pension scheme participants had more than upper-level secondary education (46.4%), while among non-participants, only around one-fifth had reached that level of educational attainment (20%). Two out of three workplace pension scheme participants worked in firms with more than 500 employees (66%), a proportion four times higher than for the rest of the workforce (15%). Finally, around one-half of workplace pension scheme participants worked in financial intermediation, public administration or education.<sup>7</sup> Only 12% of the non-participating population works in these sectors.

<sup>7</sup> Some of these differences are attributable to collective bargaining. The 2003-2006 sectoral collective bargaining agreement for savings banks envisaged contributions of €600 for new employees in this sector from 1986 onwards. These contributions are also included the subsequent renewals in 2009 and 2014.

As is to be expected given their educational attainment level, participants in workplace pension schemes reported considerably higher average wage income in the year prior to the survey (€38,565) than employees not participating in such schemes (€16,175).

Given the different characteristics of workplace pension scheme participants and non-participants, in order to determine whether participating in such a scheme increases the level of saving, participants in such schemes need to be compared to a group of employees who do not participate in such schemes, but have similar characteristics.

## A comparable group of workers not participating in a workplace pension scheme

In this analysis, the comparable group is defined as those workers who do not participate in a workplace pension scheme but have similar observable characteristics to those who do.<sup>8</sup> Specifically, employees considered comparable to workplace pension scheme participants are those who do not participate in such a scheme but have similar ages, educational attainment levels and occupational skills, work in firms of the same size and in the same sector, have worked the same number of months the year prior to the survey and live in households of a similar size.<sup>9</sup>

The choice of these characteristics to define the comparable group reflects the need to consider individuals with household and employment characteristics similar to those of workplace pension scheme participants. First, since many saving decisions are taken by households rather than individuals, it is desirable to compare individuals belonging to households of similar size. Second, given that firms offering workplace pension schemes are heavily concentrated in three sectors of activity (finance, education and public administration), the comparable group should comprise employees in those sectors. Additionally, the available evidence suggests that job losses significantly reduce household income, expenditure and wealth, making pension schemes, which are an illiquid product, a less attractive saving vehicle for employees in more unstable jobs. Therefore, a comparable group with similar employment histories over the year prior to the survey is chosen.<sup>10</sup>

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<sup>8</sup> The methodology used follows Benjamin (2003).

<sup>9</sup> The aim is to choose a comparable group with similar characteristics to those of workplace pension scheme participants in terms of the household size, gender and age (in years) of the surveyed person and their educational attainment level (measured using three categorical variables: primary, secondary and tertiary education). The size of the firm and the NACE Rev. 2 two-digit sector of activity and CNO-1994 one-digit occupation are also considered. To accommodate differences in job security, employees with the same number of months worked in the year prior to the survey are chosen, both in the sample as a whole and, specifically, during the period 2011-2014.

<sup>10</sup> The comparison is made using the matching method, reweighting the sample of non-participating employees to ensure that their demographic characteristics, employment histories, skills and firm size and sector are similar on average to those of workplace pension plan participants. The reweighting is done using a Logit model in which participation in workplace pension schemes is predicted on the basis of the aforementioned characteristics and



Lastly, the EFF generally measures overall household wealth, although some assets (such as pension schemes) are also measured for each household member. Hereafter, the unit of analysis will be household *members*, although the level of wealth will be that of the household overall.<sup>11</sup>

By construction, the comparable group has similar characteristics to the group of workplace pension scheme participants in terms of household size, educational attainment level, occupational skills and industry. Despite this similarity, these two groups may differ in other characteristics that affect their propensity to save. For example, employees in the comparable group may choose not to participate in pension schemes because they live in households with lower income levels or may prefer to save in liquid financial assets so as to cope with income shortfalls. Chart 2 compares the income and perceived probability of job loss of workplace pension scheme participants and employees in the comparable group.<sup>12</sup>

First, it can be seen that employees in the comparable group live in households whose income is 9% lower than that of workplace pension scheme participants. This difference is relatively small given that the average income of non-participants in the population as a whole is 38% lower than that of workplace pension scheme participants (see Chart 2.1). Moreover, among employees in the comparable group, the perceived risk of losing their job in the next twelve months is 16%, only slightly above the 12.7% for workplace pension scheme participants. By contrast, employees without workplace pension schemes as a whole perceive a 27% probability of job loss in the next 12 months, substantially higher than that perceived by the group of workplace pension scheme participants.

Workplace pension scheme participants may also differ from the rest of the population in their access to debt markets, an aspect which determines saving decisions. For example, one way of financing pension scheme contributions without altering household savings is to defer the early repayment of mortgages, an option available to households with higher levels of debt.<sup>13</sup> Access to financial markets can be proxied by mortgage loan holdings ten years prior to the survey (ten years is the

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the year of the survey. In a second step, weights are obtained and applied to the sample of non-participants to generate average characteristics that are similar to those of participants.

11 There is no need to apportion wealth among household members because the analysis compares participants and non-participants residing in households of the same size.

12 The process does not necessarily mean that participants and respondents in the comparable group have the same individual and household income level. This is because the main determinant of the tax incentive is individual income (assuming separate tax returns). By contrast, the determinant of household wealth is overall household income. Given that the relevant variable is unclear, Chart 2 is checked to determine whether both groups have similar income both individually and at the household level. See Imbens (2015) for a discussion on how to verify whether comparable groups for observable variables (in this case, age, education, occupational skills, etc.) are also comparable in terms of other hard-to-observe variables (in this case, liquidity preference or available funds).

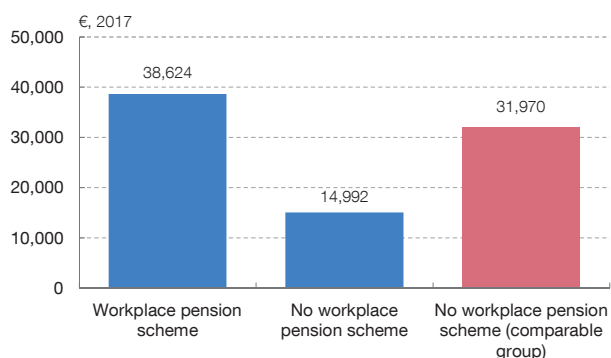
13 See Amromin et al (2007). Conversely, Beshears et al. (2021) find more limited effects of US army pension schemes on indebtedness, although in some of their specifications they do find that automatic enrolment in such workplace schemes increases participants' volume of mortgage debt.

Chart 2

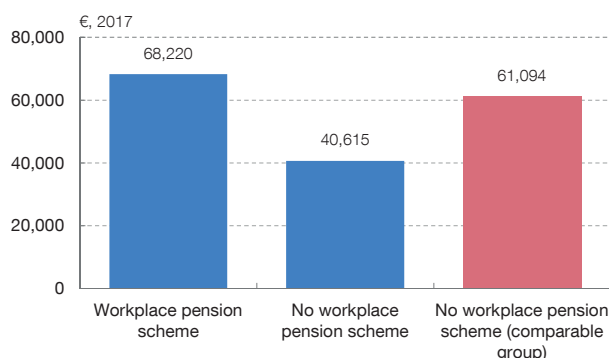
**INCOME, DEBTS AND EXPECTATIONS OF WORKPLACE PENSION SCHEME PARTICIPANTS AND OF THE COMPARABLE GROUP**

In order to measure the savings generated by workplace pension schemes, a comparable group is created of workers without a workplace pension scheme but whose age, level of educational attainment, occupation, firm size, economic sector and number of months worked in the year prior to the survey are identical to those detailed in Table 2. This comparable group is selected without factoring in salary, household income or perceived probability of job loss. This chart confirms that workplace pension scheme participants and employees in the comparable group are also similar in these aspects.

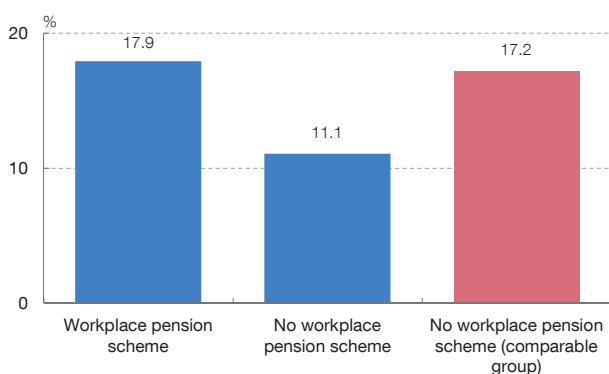
1 GROSS ANNUAL EARNED INCOME (INDIVIDUAL)



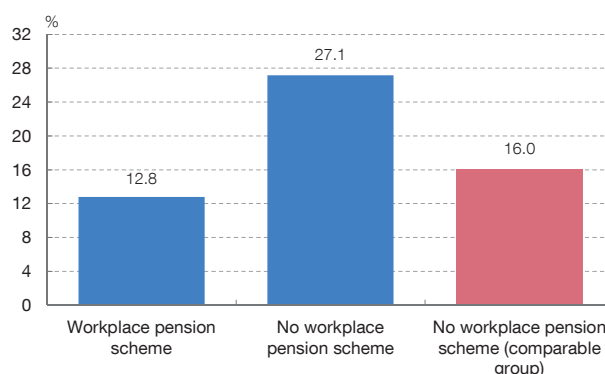
2 GROSS ANNUAL INCOME (HOUSEHOLD)



3 PROBABILITY OF HAVING A MORTGAGE FOR MORE THAN 10 YEARS



4 PERCEIVED PROBABILITY OF JOB LOSS



SOURCES: Banco de España, based on data from the Spanish Survey of Household Finances (2005-2017).



average time workplace pension schemes in the sample have been held). Thus, Chart 2.3 shows that 17.9% of workplace pension scheme participants have had a mortgage for at least ten years, a percentage similar to that in the comparable group (17.2%). However, within employees without workplace pension schemes as a whole, only 11% have a mortgage that is more than ten years old.

In short, the comparable group of workers without workplace pension schemes is specifically designed to ensure it has characteristics similar to those of workplace pension scheme participants in terms of family size, occupational skills and economic sector. Moreover, the pension scheme participants and the employees in this comparable group turn out to resemble each other in other savings-related

characteristics for which no such similarity was sought, such as average income, perception of job security or asset portfolio composition (before signing up to a workplace pension scheme). The comparable group's savings decisions are therefore likely to reflect those that would be made by participants in workplace pension schemes were this option unavailable.

## The effect of workplace pension schemes on savings

Chart 3 compares the wealth of households with workplace pension schemes with other households and with the comparable group. First, average household financial wealth<sup>14</sup> is compared, revealing that households with a workplace pension scheme are €27,000 better off than the comparable group (see Chart 3.1). This difference is greater than (albeit similar to) the €20,600 such households have, on average, accrued in their workplace pension schemes.

Second, the net wealth<sup>15</sup> of such households (including real assets and minus any debts) is examined. The gap is narrower than that observed in the case of gross financial wealth, amounting to €13,600 (see Chart 3.2). The average net wealth of employees with workplace pension schemes stands at €358,800, vs €345,167 for the comparable group. Thus, workplace pension schemes contribute to an increase in household total net wealth, albeit in an amount lower than the amount accrued in pension schemes. This increase can be calculated by taking the ratio between the €13,600 difference in net wealth and the €20,600 accrued in pension schemes. This ratio stands at 0.66, meaning that every euro saved in workplace schemes increases household net wealth by 66 cents.

One possible reason for this finding is that individuals with workplace pension schemes either invest less in non-financial assets or take on greater debt. First, real assets are analysed, comprising the total value of all (primary and secondary) dwellings and the value of any businesses, antiques, jewellery and works of art, before examining the total debt.

The real assets of employees with workplace pension schemes are worth €308,140, i.e. €4,430 less than that of the comparable group (see Chart 3.3). An analysis of the individual components of such real wealth reveals that the value of other properties is similar for the two groups (see Chart 3.4). The same can be said of the value of primary dwellings.<sup>16</sup> Businesses are the only real asset that is worth more in the case of the comparable group (€10,300 more).

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14 Financial wealth includes bank accounts, time deposits, investment funds, shares, fixed-income securities, private and workplace pension schemes and other financial assets, without discounting financial debt.

15 Net wealth is obtained by adding a household's real assets to its financial wealth and subtracting any debts.

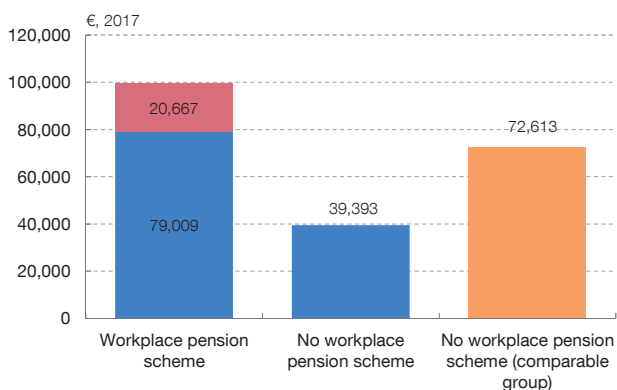
16 The primary dwellings of workplace pension scheme participants are worth €4,596 more than those of employees in the comparable group.

Chart 3

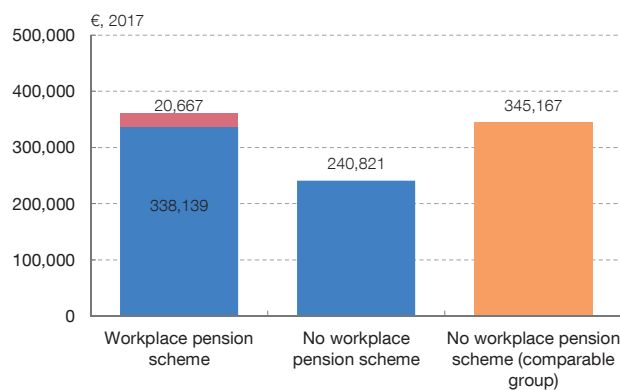
### HOUSEHOLD WEALTH OF EMPLOYEES WITH WORKPLACE PENSION SCHEMES AND OF THE COMPARABLE GROUP

The financial wealth of employees with workplace pension schemes is around €27,000 higher than that of the comparable group, roughly the average amount accrued in workplace pension schemes (€20,667, highlighted in red in the charts). Chart 3.2 shows that their net wealth is €358,806, i.e. €13,000 more than the comparable group. The reason for this difference is that employees with workplace pension schemes have fewer real assets (Chart 3.3) and have taken on more debt (Charts 3.5 and 3.6).

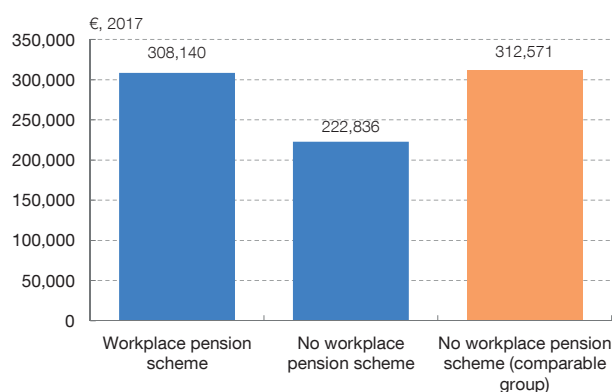
1 FINANCIAL WEALTH (AVERAGE)



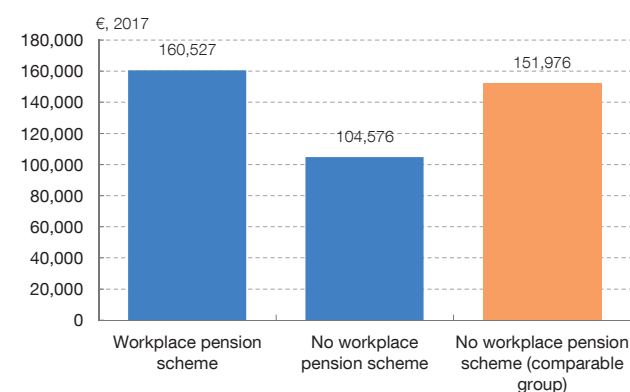
2 HOUSEHOLD NET WEALTH (AVERAGE)



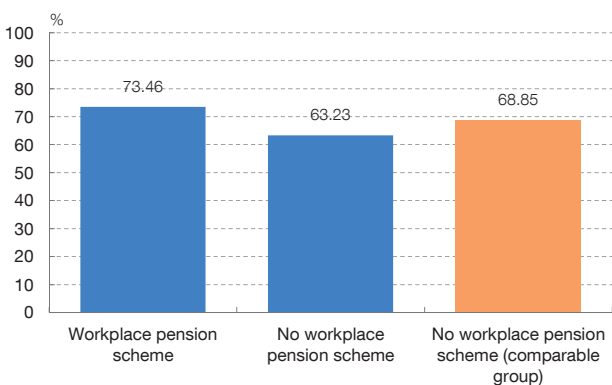
3 REAL ASSETS (AVERAGE)



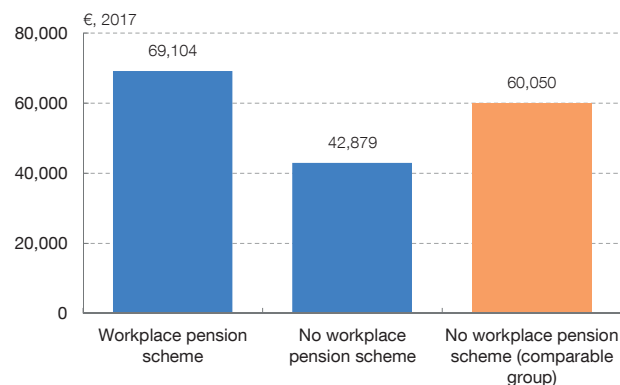
4 VALUE OF OTHER PROPERTIES (AVERAGE)



5 PROPORTION OF INDEBTED HOUSEHOLDS



6 AVERAGE HOUSEHOLD DEBT (DEBTORS)



SOURCE: Banco de España, based on data from the Spanish Survey of Household Finances (2005-2017).



Differences can also be seen in the average indebtedness of the two groups. 73.4% of the households whose members include a workplace pension scheme participant have some form of debt, 4 pp higher than the percentage of indebted households in the comparable group (see Chart 3.5). Moreover, among indebted households, the average debt of workplace pension scheme participants stands at €69,100, €9,000 higher than the average debt of the comparable group (see Chart 3.6).

In short, the amount of financial wealth accrued by workplace pension scheme participants is approximately €27,000 higher than that of the comparable group, while their average net wealth is €13,600 higher. The difference between the two figures therefore appears to lie in the lower weight of other household portfolio components (the value of other household members' businesses), together with a higher volume of debt.<sup>17</sup>

### The role of taxation and the contribution of pension schemes to additional saving

As explained above, workplace pension schemes enjoy more advantageous tax treatment than other forms of saving, since contributions reduce the tax base (up to a limit and bearing in mind that the post-retirement income stream deriving from a pension scheme will be taxed once the pension scheme is redeemed). In any event, the funds accrued in a pension scheme do not represent additional savings in their entirety, since they are partially financed by a reduction in taxes.

One way of ascertaining the contribution of workplace pension schemes to net national savings is to discount the tax not collected due to such exemptions from the measurements of wealth accrued in workplace pension schemes. This discount can be estimated by applying the marginal rate levied on a participant's income to the wealth accrued in their pension scheme, on the assumption that all contributions have historically been taxed at the same marginal rate as that observed in the year of the survey.<sup>18</sup> This adjustment also ignores any future taxation of the post-retirement income generated by these financial assets. In other words, the fact that some of the tax exemptions on past contributions will be eventually recovered is not factored in.

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17 A series of robustness analyses have been conducted using logarithmic specifications of wealth or expressing wealth as a ratio of household income. While these specifications are more precise than those included in Chart 3, it is harder to interpret the effects. These models suggest that total wealth is affected less than financial wealth, pointing to a degree of asset substitution. The difference between the responses of net and financial wealth in these models is statistically different from zero at a 95% confidence level.

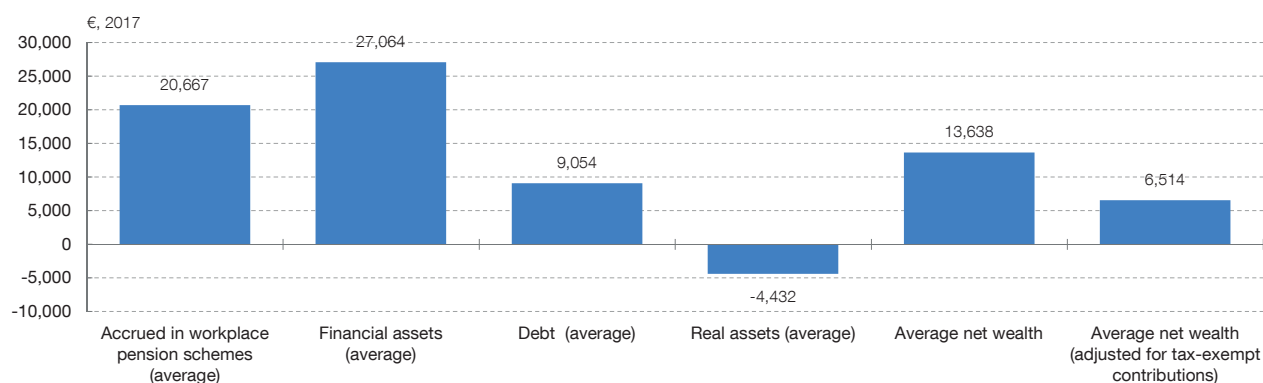
18 See Benjamin (2003). The marginal rate used is taken from the personal income tax (IRPF) tables published by the Ministry of Finance for the year of each wave and taking into account individual income. This calculation may overestimate the tax loss where the individuals concerned made past contributions for less income at a lower marginal rate. This distortion may in practice be minor, since the average income of participants has remained relatively stable over the past 12 years. Moreover, the assumption is the same as that used by Benjamin (2003) and allows for a comparison with the United States.

Chart 4

**AVERAGE WEALTH OF WORKPLACE PENSION SCHEME PARTICIPANTS AND OF THE COMPARABLE GROUP. VARIOUS**

Workplace pension scheme participants have €20,667 saved in these financial vehicles. Their average financial wealth (which includes all other financial assets, such as bank accounts, shares, investment funds, etc.) exceeds that of the comparable group by €27,064. Nonetheless, participants have also taken on €9,054 more in debt on average than the comparable group and their real assets are worth €4,432 less. Thus, the difference in net wealth between the two groups (financial and real wealth, net of any debts) stands at €13,700. When adjusted to account for the fact that contributions are tax-exempt and do not constitute public savings, participants have €6,500 more than employees from the comparable group.

DIFFERENCE BETWEEN PARTICIPANTS AND EMPLOYEES IN THE COMPARABLE GROUP



SOURCE: Spanish Survey of Household Finances (2005-2017).



By applying this marginal rate to the balances built up in all types of pension schemes, it emerges that participants in such schemes have an average net wealth of €346,419, vs the €339,905 of the comparable group. In other words, the average contribution of pension schemes to additional savings would stand at around €6,500 (31% of the total €26,000 accrued in such products).

By way of a summary and in order to ascertain how average savings respond to the tax incentives for workplace pension schemes, Chart 4 shows the differences between the various components of the portfolios of pension scheme participants and of employees in the comparable group, including the tax cost due to the lower tax on contributions. On average, participants accrue €20,600 in workplace pension schemes and have around €27,000 more in financial assets (see the first two columns of Chart 4). Thus, on average, the savings accrued in workplace pension schemes represent new financial saving (gross). When broader measurements of wealth and household debt are considered, it emerges that participants have, on average, €9,000 more in debt and around €4,000 less in real assets than the individuals from the comparable group. Their average net wealth (total financial and real assets net of debts) is therefore around €13,600 higher than that of the comparable group. In this regard, €13,600 of the €20,600 (around 66%) would constitute new private saving (see the fifth column of Chart 4). Lastly, once adjusted for the exempt taxation (which represents a public dissaving), participants save around €6,500 more than the

comparable group. In other words, 31% of the €20,600 accrued would constitute additional savings. This range of estimations of the impact on saving, of between 31% and 66% (depending on whether or not the tax costs are factored in), is similar to that observed in the United States.<sup>19</sup>

### The role of heterogeneity

Given the distribution of household financial wealth, which is typically concentrated in a small share of households, it is also worth analysing the differences in median financial wealth (i.e. the level of financial wealth such that half of the population has a higher financial wealth and half of the population has a lower financial wealth). The average and median net wealth within a single group may differ where some of its members have a very significant volume of assets. With this in mind, median net wealth is a statistic that better reflects the financial position of the majority of individuals with a workplace pension scheme.

Thus, workplace pension scheme participants have a median net wealth of €239,000, i.e. €21,000 more than the €218,000 of the households in the comparable group.<sup>20</sup>

There is therefore a difference between the effect of workplace pension schemes on average net wealth (€13,600) and on median net wealth (€21,000). Chart 5 shows how the gap in net wealth between workplace pension scheme participants and the comparable group narrows as individual wealth increases. In other words, the difference in net wealth between workplace pension scheme participants and the comparable group is €33,000 in the bottom quartile (the least wealthy individuals), whereas the difference between the two groups falls to €13,700 in the top quartile (the 75th percentile). Likewise, the differences in wealth after adjusting for tax-exempt contributions follow a similar pattern, revealing a difference of €30,000 in the bottom quartile and of €7,000 in the top quartile.

## Conclusions

This article analyses the characteristics of workplace pension scheme participants in the Spanish Survey of Household Finances in order to determine the extent to which this product generates new savings. Compared with other savers, this group is older and better educated and tends to work at larger firms. Given that such differences may be conducive to higher levels of saving, in order to estimate the wealth such individuals would have in the absence of a tax incentive, a group of

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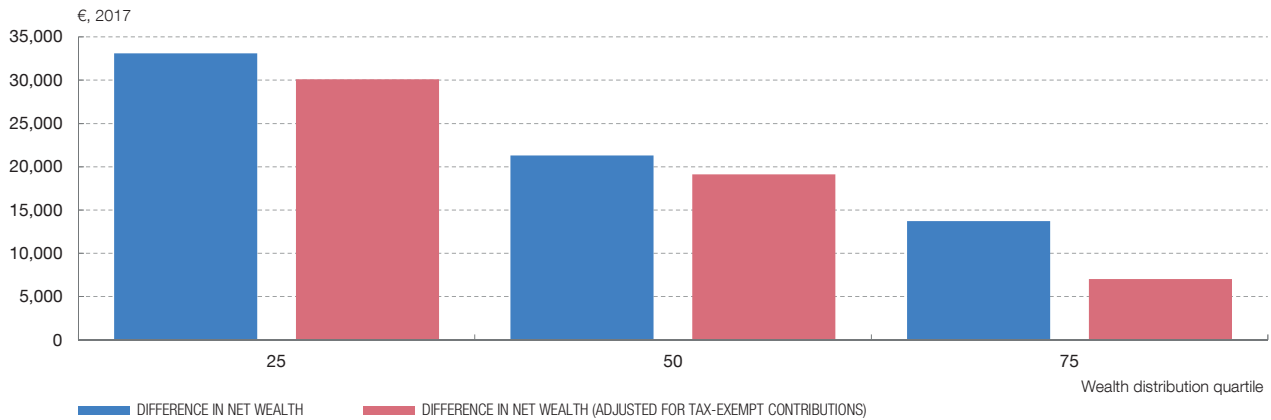
19 See, for example, Benjamin (2003), who estimates that each dollar contributed to workplace pension schemes contributes 25 cents to additional saving and 50 cents to private saving

20 In other words, the median total wealth of 50% of employees with a workplace pension scheme exceeds €239,000, while the other 50% have less.

Chart 5

**WEALTH OF WORKPLACE PENSION SCHEME PARTICIPANTS AND OF THE COMPARABLE GROUP**

This chart shows the differences in net wealth between workplace pension scheme participants and employees in the comparable group at various points of the wealth distribution. It can be seen that net wealth, whether adjusted for past contributions or otherwise, is always greater for workplace pension scheme participants, although the gap is narrower among the wealthier employees.



SOURCE: Spanish Survey of Household Finances (2005-2017).

employees without workplace pension schemes (but with average characteristics similar to those of participants) is analysed.

The findings suggest that each euro saved in such financial vehicles increases private savings by around 66 cents (without discounting taxes) and that additional savings rise by around 31 cents (adjusted for tax-exempt contributions). These results are similar to those found in the United States. Moreover, the effects of pension schemes on additional savings are heterogeneous among participants, and are relatively greater at the lower end of the wealth distribution.

A note of caution should be sounded. Given their high level of income and qualifications when compared with other employees, Spanish participants of workplace pension schemes have very particular characteristics. In order to understand the impact of workplace pension schemes on other groups, it would be useful to analyse the potential crowding out effects on savings in countries (such as the United Kingdom) in which participation in workplace pension schemes is much more widespread among the population.

5.5.2022.



## REFERENCES

- Amromin G., J. Huang and C. Sialm (2007). "The Tradeoff between Mortgage Prepayments and Tax-Deferred Retirement Savings", *Journal of Public Economics*, Vol. 91, Issue 10, pp. 2014-2040.
- Benjamin, D. (2003). "Does 401(k) eligibility increase saving? Evidence from propensity score subclassification", *Journal of Public Economics*, Vol. 87, Issues 5–6, pp. 1259-1290
- Bernheim, D. (2002). "Taxation and Saving", Chapter 18, *Handbook of Public Economics*, Elsevier, Auerbach and Feldstein (editors).
- Beshears J., J. Choi, D. Laibson, B. Madrian and W. Skymmihorn (2021). "Borrowing to Save? The Impact of Automatic Enrollment on Debt", *The Journal of Finance*, Vol. 77, Issue 1, pp. 403–447.
- Chetty, R., J. Friedman, S. Leth-Petersen, T. H. Nielsen and T. Olsen (2014). "Active vs Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark", *The Quarterly Journal of Economics*, Vol. 129, Issue 3, pp. 1141–1219.
- Cribb, J., and C. Emmerson (2020). "What happens to workplace pension saving when employers are obliged to enrol employees automatically?", *International Tax and Public Finance* 27, pp. 664–693.
- Gelber A. (2011). "How do 401(k)s affect saving? Evidence from changes in 401(k) eligibility", *American Economic Journal: Economic Policy*, Vol 3, No 4.
- Imbens, G. (2015). "Matching methods in practice: three examples", *Journal of Human Resources* Spring, Vol 50, No 2, pp. 373-419.
- Ministerio de Economía y Empresa, Dirección General de Seguros y Pensiones (2017). *Informe Estadístico de Estadísticas de Previsión Social y Complementaria*.
- Mirrlees, J., S. Adam, T. Besley, R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles and J. M. Poterba (2011). *Tax by Design: The Mirrlees Review*, Institute for Fiscal Studies.
- Unión General de Trabajadores (2012). *Convenio Colectivo Cajas e Instituciones Financieras 2011-2014*, Sector Estatal de Ahorro Fes-UGT.