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Research Article



Retirement savings in Malta: Is there a role for workplace pensions?

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Abstract. This paper seeks to understand the main factors that influence individual willingness to participate in a workplace pension scheme. The topic of workplace or occupational pensions has garnered significant interest in recent years, particularly because of concerns related to the sustainability of public pensions within the EU due to rising population ageing. To this end, we conduct a series of computer-assisted telephone interviews (CATI) across a sample of workers in Malta who are members of a leading trade union. The questionnaire delves into a variety of issues, notably savings and investment behaviour, risk appetite as well as perceptions regarding workplace pensions. The results show that respondents' willingness to save in a workplace pension scheme is strongly driven by individual trust levels in such schemes. In turn, logistic regression results indicate that trust in such schemes is positively associated with being male, high levels of income and higher levels of risk tolerance. We discuss these findings in terms of their implications for the widespread uptake of workplace pensions in Malta and their potential impact on retirement earnings and inequality. We also discuss the importance of trade unions in ensuring that such schemes appeal and are accessible to a diverse array of workers in the Maltese labour force, ensuring that their needs and concerns are addressed while also driving forward any legislative measures to protect investors.

Keywords: Workplace pensions, pension adequacy, fiscal sustainability, Malta

1 Introduction

Welfare states are facing a significant challenge due to the ongoing and intensifying demographic shifts towards an ageing population (Hinrichs, 2021). Although the oldage dependency ratio is expected to continue increasing in developed economies, the estimated increase is particularly acute in Malta. The European Commission (2021) estimates that the number of people aged 65 years or over as a proportion of the working-age population (20-64) will increase from 30.4% in 2022 to 65% in 2070 in Malta and from 36% in 2022 to 59% in 2070 in the EU. In other words, the old-age dependency ratio in Malta is estimated to increase by 34.6 percentage points relative to the 23 percentage point increase in the EU overall, making it one of the largest estimated increases in the EU over this period. Therefore, the current statutory payas-you-go (PAYG) pension system is going to come under increasing strain as the median age of the population continues to increase following a fall in the relative size of the working-age population and increasing life expectancy (Vella & von Brockdorff, 2019). Indeed, mirroring the relatively larger estimated increase in the old-age dependency ratio, gross public pension expenditure-to-GDP is expected to rise by 3.8 percentage points between 2019 and 2070 to 10.9% in Malta, relative to the 0.1 percentage point increase in the EU, although it is important to note that overall expenditure will still remain below the EU average even after this increase.

In this light, the last decades have witnessed an intensification of public pension reform activity across the EU (Hinrichs, 2021). This was done by centering on increasing retirement ages to keep people in work for longer and by extension, paying into the pension system for longer. Namely, pension reform policies in Malta included raising the pension age gradually to 65, increasing the contributory period and offering a percentage increase in pensions for each year worked after the pensionable age to encourage later retirement (Grech, 2017; Malta Fiscal Advisory Council, 2017).

These public pension reforms sought to enhance the fiscal sustainability of public pensions (Carone et al.,

2016). However, although national governments' priority involves keeping pension costs contained to secure the sustainability of their finances, they also face the challenge to ensure that on an individual level, pensions are adequate. In the context of intensifying population ageing, a significant re-think about the pension system in Malta is necessary since the balance between fiscal sustainability and pension adequacy is becoming increasingly pronounced. The relevance of this point is further amplified when considering that the old-age dependency ratio is also expected to rise faster in Malta, increasing by 32 percentage points to 60.5% in 2070, relative to an overall increase of 21.1% in the EU (European Commission, 2021). As a result, there will be increased strain on public finances from a longer retirement and the increased risk of old-age poverty later in retirement (European Policy Committee and Social Protection Committee, 2020).

Although the provision of pensions schemes in Malta has a long history dating back to 1885 with the first publicly provided scheme for police officers, private pension schemes are still comparatively nascent in nature, possibly owing to the abolition of such schemes in 1979 as part of the two-thirds pension reform. Nonetheless, in recent years the Maltese government has sought to actively promote participation in private pension schemes, notably via the launch of the third pillar pension scheme in 2014 which introduced tax credits related to the uptake of personal retirement schemes. This was followed up by the introduction of tax credits for both employers and employees to encourage the provision of and participation in voluntary occupational pensions schemes in 2017, with both sets of tax credits increased further in 2021.

Against this context, understanding the willingness to save in occupational pensions schemes in Malta is one of urgent significance. Thus, the objective of this study is to understand the role and determinants of saving in occupational pensions in Malta using a unique dataset of trade union members, the majority of which are aged below 35. These results are then used to derive relevant policy implications to facilitate the uptake of occupational pensions to improve adequacy in pensionable income while also reducing the burden on the current pension system.

2 Literature Review

In response to the retrenchment of public pensions, private alternatives to traditional publicly funded pensions have become increasingly widespread in several countries (Börsch-Supan et al., 2008; Burtless, 2012; Keune, 2018). These have namely taken the form of private occupational pension schemes which are employment-based pensions organised at the sector or firm level. This occurred as national governments pushed for reforms aimed

at their expansion, but also through the introduction of incentives to save into workplace pensions schemes, such as in the form of tax benefits (Dummann, 2008), with these schemes even becoming mandatory or quasi-mandatory in some countries (European Commission, 2021). Furthermore, the European Commission has long argued that these second-pillar pensions are required due to population ageing (e.g. European Commission, 2003, 2012). Nevertheless, the design and provision of these schemes remain heterogeneous within and between EU countries, with occupational pensions representing a relatively larger proportion of pension provision in countries like Denmark and the Netherlands where coverage is high.

Aside from softening the burden of ageing populations on social security schemes, the reason behind this increased participation in workplace pensions is that these schemes provide an important income supplement to firstpillar pensions, resulting in more income security for the elderly and can also help secure adequate replacement rates (Anderson, 2019; Haverland, 2007; Natali, 2018). The latter point is particularly salient for individuals who face uncontrollable barriers to prolonging their working lives to reach a desired replacement rate, such as poor health (Topa et al., 2018).

Economic literature has identified various factors which influence the demand for occupational pensions (Dummann, 2008). The notion of saving for retirement can be traced back to the classic life-cycle hypothesis worked out by Modigliani and Brumberg (1954), which is built on the notion that income in retirement is smaller than that during the working period and therefore individuals save money when they are working in order to finance their consumption once they are in retirement. Since individuals derive a higher utility from smoothing consumption and maintaining living standards across their lifetime, individuals design a lifetime savings plan (Crawford et al., 2012). Thaler and Sunstein (2008) argue that one of the key problems with such life-cycle models is the complexity individuals face in designing an optimal savings plan for their lifetime, making it difficult to make rational decisions when it comes to pension planning. Secondly, retirement savings might not always be the priority for individuals (Foster, 2017), namely due to paying off mortgages, and therefore people also face difficulty in following their optimal savings plan (Thaler & Sunstein, 2008).

Aside from the two problems associated with life-cycle models, and by extension retirement planning, previous studies have found evidence that gender and age also influence savings decisions linked to retirement. Younger employees are found to save less through occupational pensions (Dummann, 2008). This could be driven by a lack of knowledge of the necessity in planning for retire-

ment or perceived restricted portability of occupational pensions for a demographic which values labour mobility. Research has also highlighted the role of heuristics (e.g. present bias and inertia) in negatively influencing engagement with pension schemes generally (James et al., 2020), but particularly for younger employees aged between 25 and 39 (James, 2018). Indeed, other studies (eg. MacLeod et al., 2012; Scottish Widows, 2020) have shown that individuals were not actively planning their retirement until their 30s or 40s, and males think about pension provision before females, albeit at a decreasing rate, with the latter potentially being driven by a lack of affordability (Prabhakar, 2017).

Pension features, namely automatic enrolment, simplification, and commitment devices, also influences workplace pension participation (Carroll et al., 2009; Madrian, 2012; Prabhakar, 2017). Madrian and Shea (2001) found that there was a significant increase in the number of participants in the scheme when it required individuals to opt-out. They further argue that this might be due to procrastination, but this might occur due to a myriad of factors. For instance, procrastination in opting-into an occupational pension can occur because of the complexity in making saving decisions as highlighted by Thaler and Sunstein (2008) or due to a lack of information on the pension scheme or automatic enrolment. The authors suggest that education may be the appropriate tool if this finding is driven by a lack of information.

On this note, existing work similarly suggests that educated employees are more likely to participate in a workplace pension scheme (Bernstein, 2002; Dummann, 2008), since this group is better informed and has a better understanding on the details of pension plans and the associated benefits, including tax reductions. Furthermore, when looking specifically at the results for financial education, studies similarly find that individuals who do not possess adequate financial literacy are less likely to plan for retirement and reach retirement with insufficient accumulated wealth (Hilgert et al., 2003; Lusardi & Mitchell, 2007). Ring (2005; 2012) suggests that educating individuals on retirement planning can help assess the trustworthiness of financial products, institutions, and related advice.

Mirroring the link between education and occupational pension scheme participation, studies have concluded that income levels are an important determinant of retirement savings behaviour, with higher-income households having the ability to save more towards their retirement (Amari et al., 2020; Shariff & Isah, 2019). Risk aversion is another element which has been found to influence personal savings behaviour (Almås et al., 2020; Bommier & Grand, 2019).

3 Method

3.1 Survey

To understand the willingness to save in private occupational pensions schemes and the associated determinants in Malta, we use a unique data set extracted from a telephone survey carried out in the last quarter of 2018. This dataset has the specific advantage of including several determinants which we would expect influence an individual's decision to save in a private pension scheme, namely education, income, financial literacy, and risk aversion. Apart from including a question on the willingness to save in an occupational pension scheme, this survey further asks about the individual's ability to trust this scheme. Ring (2012) argues that trust is a crucial element in pension decisions considering the uncertainty over pension outcomes and the risks associated with pension investment. Furthermore, as workplace pensions are provided by or through an employer, then engagement with the scheme is likely to be impacted by the level of trust employees have in their employers and financial institutions to provide suitable schemes. On this note, Ring (2012) argues that uncertainty over pension outcomes and the risks of pension investment imply that trust is important in pension decisions. Additionally, the European Commission (2012) has argued that there is scope for further development of private funded schemes, but this would require that such schemes become safer. In turn, this would foster more trust in saving in such workplace pensions.

Furthermore, the sampled individuals are employed members of the UHM, Voice of the Workers, one of the largest trade unions in Malta which represents workers from several economic sectors and accounts for around 26% of unionised individuals (DIER, 2019). Trade unions have had important roles in the evolution and the provision of secure occupational pensions in other countries, namely by developing strategies for limiting investment risks, limiting the involvement of private financial actors, and ensuring that the interests of the investment managers are aligned with those of the employees engaging with the scheme (Anderson, 2019; Keune, 2018). Secondly, since individuals are heavily influenced by the 'messenger' of information (Dolan et al., 2010), trade unions as representatives of the workers have another important role in the uptake of occupational pension schemes in Malta.

Following a presentation of summary statistics and aggregated results, this paper will present pairwise correlations to understand the key correlates of individual willingness to save in a workplace pensions scheme. This will be complemented by the estimation of a logistic (logit) regression model to delve into the determinants of trust in occupational pensions schemes. The logit model is used to estimate the likelihood of something occurring in a dichotomous choice variable (in this case, the likelihood of trust in workplace pension schemes, which is binary), by fitting a linear logistic model based on a set of correlates that may explain this likelihood.

At this point, a number of potential shortcomings are worth noting. Firstly, the study is exploratory in nature, with questions on willingness to save in workplace pensions being largely hypothetical in nature, which may generate noise in our data. Secondly, the nature of the questionnaire itself means that tasks which effectively require due time and consideration (e.g., savings decisions) were in reality taken in an artificially short amount of time, and this may also impact the accuracy of the responses. Thirdly, the questionnaire consists of closed-ended questions, with no scope for elaboration or qualitative responses which may add further insight or indeed context to the responses. The sample size of 164 respondents may also limit the external validity of the conclusions and results drawn in this paper, and any causal interpretations should be undertaken with caution.

3.2 Data and summary statistics

Table 1 presents the summary statistics of the sample (n = 164) for the key variables. As shown through the statistics, the target respondents for this survey were individuals aged 35 and younger. Indeed, this category makes up around 70% of the total sample. It is useful to gather the views from a predominantly younger sample of respondents given that in the context of population ageing, private workplace pensions would be of the most benefit to this age group. Secondly, previous research shows that younger workers are typically less likely to engage with workplace pension schemes and therefore understanding the reasons for non-participation is crucial (Dummann, 2008). The 36-50 and 51+ sub-samples include 25 respondents each. In turn, as older workers are likely to be looked after exclusively through the state pension provided by the Maltese government, this group serves as a useful benchmark for the views of younger members who may not be able to rely so heavily on the state to provide them with an adequate retirement in income.

Most respondents have an upper-secondary level of education (just under 50%), with 25% of the sample having successfully completed post-secondary education and around another quarter having a tertiary level qualification. Nevertheless, those aged 35 and under, the largest sub-sample, display higher levels of academic qualifications relative to the overall sample average, whereas respondents in the 51+ category are largely skewed towards lower levels of education. In turn, these education statistics are mirrored in the reported income levels with most

Variable		Share
Gender	Male	54.9%
	21-35	69.5%
Age	36-50 51+	15.2% 15.2%
Education	Upper-secondary Post-secondary Tertiary	47.6% 25.0% 27.4%
Income	$\leq €15,000$ €15,001 - €25,000 €25,001 - €35,000 ≥ €35,000	23.8% 62.2% 12.2% 1.8%
Risk-seeking	0 - 25 26 - 50 51 - 75 76 - 100	30.5% 39.0% 20.1% 10.4%

Table 1: Description of key independent variables.

respondents (around 62%) earning between \in 15,001 and \in 25,000 yearly, followed by 23.8% earning \in 15,000 or less. The 51+ cohort records a larger share of respondents in the lowest income category relative to the sample average (28.0%).

The sample of union members is characterised by a strong degree of risk-aversion, with almost three-fourths of the respondents ranking themselves as more risk-averse when it came to investing their savings. There was a divergence in attitude to risk across age groups with those in the 51+ category being more risk averse than younger respondents.

As mentioned earlier, the survey includes a set of questions which seek to evaluate financial literacy. As one would expect, financial illiteracy tends to influence household financial behaviour (Lusardi & Mitchell, 2007). In this light, the level of financial literacy needs to be included within the discussion on the role of occupational pensions in Malta from a policy perspective, to provide individuals with the resources to improve their financial education to make optimal saving decisions to ensure they have an adequate pension.¹ Consistent with previous studies (eg. Nicolini et al., 2013; Van Rooij et al., 2011), these questions assess concepts which are the cornerstone of financial planning and transactions, namely interest compounding, inflation effects, time discounting

¹A copy of the survey questionaire is shown in Appendix A

Share of correct financial literacy responses by question type							
	Numerical skills	Interest compounding	Inflation	Time discounting	Real value of money	Risk	
Correct responses	65.2%	52.4%	62.2%	50.0%	70.7%	59.1%	
Share of sample I	by number of	correct financial	literacy res	sponses			
Correct response							
None		1.8%					
1		7.3%					
2	14.0%						
3	21.3%						
4	26.8%						
5	18.9%						
All	9.8%						

Table 2: Financial literacy

and the real value of money. Respondents were given a 'do not know' option when answering these questions to reduce the possibility of a correct response from a guess response, reducing the accuracy of the financial literacy statistics (Lusardi & Mitchell, 2007). Statistics of these questions are reported in Table 2 below.

The proportion of correct responses varies according to the underlying concept. Questions assessing knowledge on the real value of money, numerical skills and inflation recorded the largest share of correct responses, with the share of correct responses ranging from 62% to 71% of the total number of respondents. In line with our expectations, respondents demonstrated the highest levels of literacy in areas where finance permeates day-to-day experience. Similarly, when assessing respondents' knowledge on relative risk of different investment options, more than one third of respondents incorrectly categorised an investment in a diversified fund as riskier than an individual stock. However, the share of correct answers decreases to around half of the sample when asked about interest compounding and time discounting. Although at least half of the respondents answered each question correctly, only 9.8% of the sample answered all six financial literacy questions correctly. This would indicate that the respondents' knowledge of concepts which lie at the basis of financial planning is not extensive. Despite the lack of comparability in financial literacy assessments (Nicolini et al., 2013), this result aligns with the results of previous studies which concluded that widespread financial illiteracy is a common characteristic of several developed countries (Atkinson et al., 2006; Lusardi, 2019; Lusardi & Tufano, 2015). Despite these results, around 73% of

10.7423/XJENZA.2024.1.01

the sample believe that their level of financial literacy is average.

As shown in Table 3, a significant majority of respondents have said that they would be willing to save in a private workplace pension scheme to have another source of pension income aside from the state funded pension scheme. A similar share of the sample has indicated that they would trust a private workplace pension that was provided by their employer. These results are consistent across age cohorts, although the youngest cohort exhibited relatively less willingness to save and trust in workplace pensions. This finding is consistent with other responses, namely, this age group also showed relatively less concern that the pension they will receive under the current system will not be adequate, albeit still largely agreeing with this statement. Nevertheless, only around 60% of respondents indicated that they currently save regularly, of which only 21% mentioned that one of the reasons they save is for old age and retirement.

4 Results and Discussion

4.1 Results

This first subsection presents a correlation matrix of respondents' willingness to save in work pensions (future section, Q8) together with the following variables: trust in an occupational pension (future section, Q9) and sociodemographic characteristics. The latter includes gender, age, education and income (Demographics section - Q1, 2, 4, 6). The results indicate that each of these variables are positive correlates of the willingness to save variable. However, the trust variable has the strongest positive correlation (in terms of both the magnitude of

Variable		Full	Age group)
		Sample	21-35	36-50	51+
Willingness to save in occupational pension	Yes	80.5%	77.2%	84.0%	92.0%
	No	19.5%	22.8%	16.0%	8.0%
Trust in occupational pension	Yes	82.3%	78.1%	100.0%	84.0%
	No	17.7%	21.9%	0.0%	16.0%

Table 3:	Description	of de	ependent	variables
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the coefficient, as well as the statistical significance of the correlation). The strong positive correlation between trusting and saving in an occupational pension is in line with a priori expectations; therefore, it verifies the validity of the data obtained from the survey. More importantly, this finding highlights the importance of fostering trust in occupational pensions given that trust is a necessary precondition to encourage saving in these pensions.

Building on the key result of the first subsection, the second subsection seeks to determine what influences trust in occupational pensions, or rather, what variables are more likely to result in higher levels of trust in these pension schemes. Thus, we regress the trust in an occupation pension variable on the aforementioned socio-demographic variables, a measure for risk aversion, as well as a financial literacy index and a dummy variable denoting whether the respondent is a regular saver. The risk aversion variable is sourced from the Risk Appetite section (Q1), while the financial literacy variable is obtained from a simple combination of the six questions asked within the survey itself designed to test financial literacy, as detailed in Table 2.

The results of the logit regression are reported below in Table 5. As seen below, three explanatory variables have yielded statistically significant coefficients, namely gender, income and risk preferences. Specifically, male respondents are 14.5% more likely to trust workplace pensions relative to their female counterparts, which tallies with recent work analysing gender inequality in relation to private pensions (Bonnet et al., 2018). Secondly, higher incomes are also associated with higher levels of trust in workplace pensions, potentially capturing the fact that higher earners would know more about such schemes and their intricacies than others due to prior experience with investments or similar schemes. Thirdly, individuals with higher levels of openness to risk are also more likely to trust such pension schemes, once again potentially reflecting a greater level of familiarity with investments within this cohort, particularly equity portfolios, and thus the way in which such schemes operate and their potential upside. It is interesting to note that both education and financial literacy are not statistically significant, which shows that it is experience rather than knowledge that drives trust in such schemes and, in turn, willingness to save in a workplace pension. Similarly, regular savers do not exhibit higher trust levels in these schemes, potentially due to the fact that saving behaviour in Malta typically consists of relatively simple activities like placing money in a bank account or the purchase of government bonds, as opposed to riskier undertakings like investments in equity markets or portfolios, as attested by the high levels of deposits held in Maltese banks (Central Bank of Malta, 2022).

4.2 Discussion

The findings presented above raise a number of interesting questions regarding the potential widening of workplace pension coverage in Malta. Firstly, the pairwise correlation results indicate that younger individuals are less likely to save in a workplace pension scheme than older workers, which tallies with previous findings from the literature (e.g. Kristjanpoller & Olson, 2015). This underscores the need to educate younger generations on the importance of investing in a pension scheme at an early age in order to ensure financial stability upon retirement, particularly in light of the well-documented issues in public pensions funding which are looming both in Malta and across Europe due to ageing populations (European Commission, 2021).

Secondly, the gender gap observed in our regression results when it comes to trust in pensions must also be tackled, since this translates to lower uptake of private pensions among women, to the tune of 39% across the entire EU-27 (Bettio et al., 2013), with various ramifications for living standards and relative poverty at retirement age. At the same time, we also find that higher incomes are positively correlated with trust in workplace pensions. Therefore, apart from the aforementioned legislative and informational initiatives aimed at boosting trust in general, a targeted effort must be made to cater any such scheme to the diverse needs of the Maltese workforce, including women and low-income earners, to avoid unne-

	Willingness to save in workplace pension	Trust in workplace pension	Male	Age	Income	Upper secondary education
Willingness to save in workplace pension	1					
Trust in workplace pension	0.457*	1				
Male	0.141	0.190*	1			
Age	0.162*	0.146	0.131	1		
Income	0.129	0.188*	-0.054	0.019	1	
Upper secondary education	0.178*	0.083	0.127	-0.168*	-0.016	1

Table 4: Pairwise correlation results

cessary exclusion from such schemes, both in terms of the actual design of these schemes as well as the provision of information to assuage any doubts and engender trust.

In addition, our regression results point towards a higher degree of trust among those with greater risk-seeking tendencies. This possibly illustrates that at least amongst our sample of Maltese workers, such schemes are viewed as being relatively risky compared to other potential retirement savings plans like bank account savings, government bonds or even property purchases, and in part reflects Malta's under-developed equity markets. Therefore, any potential workplace pension scheme must offer savers a variety of potential portfolios to invest in, with varying degrees of risk (e.g., high, medium and low), depending on the risk appetite of the individual, and explain in clear terms what this entails in order to change perceptions.

Another implication that emerges from our results is that any burgeoning widespread effort to introduce workplace pensions should be preceded by a thorough information campaign aimed at explaining the operations of the pension scheme including risk categories, investment strategies and other salient points in order to foster trust in the system, with transparency and openness being key prerequisites to the design of a workplace pension, given how crucial trust is to willingness to save in such schemes. This would complement more formal structures that foster trust in workplace pensions, as discussed by Burtless (2012), who advocates for relevant legislation that enables the existence of different pension vehicles while protecting pension savers via various measures.

Finally, it is important to discuss the potential role of trade unions in the design and promotion of workplace

pensions, given that our sample was derived from a population of unionised workers in Malta. As discussed by the likes of Anderson (2019) and Keune (2018), as pension financialisation increases, retirement income is increasingly financed by income from financial assets rather than payroll contributions and taxes. This development generates distributional and political dilemmas given the associated risks, including gender and income disparities in retirement income as discussed earlier, which may lead to outcomes that differ significantly from those promulgated under traditional welfare state pensions. Indeed, Natali (2018) argues that occupational pensions and their recent reforms are largely consistent with the weakening of workers' protection. In the case of weak industrial relations and trade unions, for instance, workplace pensions may provide protection for some workers but not for others, particularly when it comes to platform workers and low-income cohorts, especially when they are based on voluntary contributions and led by employers, while also potentially increasing exposure to high-risk investments (Ebbinghaus, 2012). Therefore, trade unions cannot be ignored when it comes to the provision and design of workplace pensions as observed in various countries like Sweden and Denmark, extending to a variety of potential roles ranging from the provision of information and education to workers, to potentially assisting in the administration of such schemes and ensuring that suitable mechanisms are in place to protect workers from employer insolvency and guarantee pension portability across different jobs.

Explanatory variables	Coefficient
Male	0.1451**
Age	0.0043
Education	0.0022
Income	0.1088**
Financial Literacy	0.0191
Risk-seeking	0.0019*
Regular Saver	0.0209
N	164
R-squared	0.1374
LR test	21.02

Table 5: Logistic regression results. Coefficients denote marginal effects at the mean. ***denotes statistical significance at the 1% level; **denotes statistical significance at the 5% level; *denotes statistical significance at the 10% level.

5 Conclusion

This paper has sought to understand the key drivers and barriers to the uptake of workplace pensions across Maltese workers. To this end, a structured questionnaire was designed and administered across a sample of 164 unionised workers via computer-assisted telephone interviews (CATI). The survey included questions related to financial literacy, risk appetite and saving behaviour, while also gauging respondents' willingness to save in a hypothetical workplace pension scheme. Responses were collated and analysed in order to understand what drives this willingness to save across various socio-economic, demographic and individual characteristics. Pairwise correlations showed that the key driver of willingness to save in a workplace pension is trust in such schemes, with the strength of this association far outweighing the other correlates (which included age and education).

Thus, a logistic regression was run in order to understand the key drivers of trust in a workplace pension scheme, which would provide invaluable insights regarding the design of such schemes in the Maltese context. The results showed that males, higher income earners and risk-seekers were more likely to trust a workplace pension scheme, which in turn has significant implications for potential inequalities when it comes to retirement savings and ultimately earnings.

We discussed these findings in light of their relevance to the creation of any potential workplace pension scheme in Malta, including the important role that trade unions can play in fostering trust of such systems while protecting workers. The main implications of these findings centre around the need to encourage greater pension-related savings among younger workers, since they are, based on our data, less likely to invest in workplace pensions schemes, in line with the rest of the literature. Our findings also point towards the need for any workplace pensions schemes to cater for the growing diversity within the Maltese workforce, including women, given the lower levels of trust in such schemes observed in our logit results. Further research can be undertaken in order to understand the nuances behind these findings, potentially via a series of focus groups and interviews with workers to understand their perceptions regarding workplace pension schemes and the conditions that would entice or dissuade them from participation.

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Appendix A Questionaire

Understanding DC Investment Savings in Malta – Draft Survey Instrument

Thank you for participating in this survey. The aim of this survey is to understand whether there is an appetite amongst younger Maltese workers to participate in private occupational pension savings in conjunction with saving for a state pension provided by the government of Malta. In trying to understand this key issue, a range of subject areas including demographics, savings behaviour, expectations about the future and financial literacy will be examined. It is important to answer honestly, as there are no wrong answers in this survey, and given the number of participants, we are only concerned about the aggregate response rates, from which we will be able to analyse the demand for private sector occupation pensions.

Demographics

- 1. What age are you?
- ____(numerical text box)
- 2. Are you male or female?
 - □ Male
 - □ Female
- 3. What nationality are you?
- 4. What level of education do you have (select highest academic qualification)?
 - □ SEC □ MATSEC-Level □ HNC/HND
 - Undergraduate degreeMasters Degree
 - □ Masters De
- 5. If you have a University degree what was your main degree subject?
- _____Drop down menu of high-level degree list including a box for other 6. *What is your annual income?*
 - □ Less than €15,000
 - □ €15,001 to €25,000
 - □ €15,001 to €25,000 □ €25,001 to €35,000
 - □ More than €35,000
- 7. Outside of pension savings, how much do you have saved and or invested?
- 8. Do you make investments with your personal wealth?
 - □ yes
 - 🗆 no
- 9. If yes, what is your preferred investment/asset class when investing your own money? Rank options below
 - Equities (Shares in companies on the stock market)
 - _____ Bonds (Fixed income investments)
 - _____ Property (Housing, both commercial and rental)
 - _____ Alternatives (Any other investments including precious metals, antiques, collectables) _____ Other
- 10. *If no, what would be your preferred investment/asset class when investing your own money?* Rank options below
 - _____ Equities (Shares in companies on the stock market)
 - _____ Bonds (Fixed income investments)
 - _____ Property (Housing, both commercial and rental)
 - _____ Alternatives (Any other investments including precious metals, antiques, collectables)

_ Other

- 11. If yes, do you prefer pooled investments such as mutual funds or direct investments e.g. buying individual shares? □ Pooled investment
 - □ Direct investment
 - \Box A combination of both
 - \Box I do not invest
 - □ I don't know

Risk Appetite and Risk Aversion

- 1. How would you characterize your attitude to risk when investing your own money?
- Slider Risk-averse (I do not like risk in my investments) to Risk-seeking (I like high risk investments) 2. *What investment would you view as riskier?*
- □ €100 invested in a company on the Maltese Stock Exchange
 □ €100 invested in a Maltese Stock Exchange Mutual Fund
- 3. How would you rate the risk of each investment below?
- 30-day government bond AA Corporate Bond Pooled Equity Fund Individual Company Share An Individual Emerging Market Company Share **Answers above to be randomised each will have a Slider going from risk-free to very high-risk.**
- 4. Suppose you had €100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?
 - □ More than \in 102;
 - \Box Exactly \in 102;
 - \Box Less than \in 102;
 - \Box Do not know;
- 5. Suppose you had €100 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After 5 years, how much would you have in this account in total?
 - □ More than \in 200;
 - \Box Exactly \in 200;
 - \Box Less than \in 200;
 - □ Do not know;
- 6. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?
 - \Box More than than today;
 - \Box Exactly the same;
 - \Box Less than today;
 - \Box Do not know;
- 7. Assume a friend inherits €10,000 today and his sibling inherits €10,000 3 years from now. Who is richer because of the inheritance?
 - \Box My friend;
 - \Box His sibling;
 - \Box They are equally rich;
 - \Box Do not know;
- 8. Suppose that in the year 2018, your income has doubled and prices of all goods have doubled too. In 2018, how much will you be able to buy with your income?
 - \Box More than today;
 - \Box The same;
 - \Box Less than today;
 - □ Do not know;

- 9. How would you characterize your financial literacy?
 - Average;
 - \Box Below Average;
 - \Box Above Average;

Looking to the Future and Private Pension Savings

- 1. When thinking about your own future, how good or bad do you think your life will be during the next 10 to 15 years?
 - $\hfill\square$ worse than now
 - $\hfill\square$ the same as now
 - \Box a bit better than now
 - \Box much better than now
- 2. When thinking about your own future, how good or bad do you think your life will be during the next 10 to 15 years?
 - $\hfill\square$ worse than now
 - $\hfill\square$ the same as now
 - \Box a bit better than now
 - \Box much better than now
 - 🗆 I do not know
- Rank each of the following statements as to how they will apply to your life in the next 10 to 15 years.
 Each statement will have a slider going from zero to 100 with 'Do not agree at all' at zero and 'Fully agree' at 100
 - I enjoy my life, and have a lot of fun.
 - I have my own family and children.
 - I have a good job that is fun.
 - I save as much as I can.
 - I am actively involved in volunteering.
 - I have a good living standard and can afford a lot.
- 4. To what extent do you agree to the following statements about retirement provisions?

Each statement will have a slider going from zero to 100 with 'Do not agree at all' at zero and 'Fully agree' at 100

If people do not save privately for retirement (in addition to a state pension), more and more people will be poor in old age

Because there are fewer young people and more old people, the mandatory state pension fund has less money to spend

If workers paid into a private pensions as well as the government pension fund then the mandatory state pension fund would have much fewer problems

One can expect higher returns on private pension schemes than on the mandatory state pension

If politicians really made an effort there could be a well-funded mandatory state pension in the future I am afraid that I will only get a small pension under the current system and I will be poor in retirement My generation will have to work far longer than the age of 65

- 5. Do you save regularly?
 - □ Yes

 \Box No

If yes:

- 6. Why do you save (select all that apply)?
 - \Box Larger purchases e.g. car, furniture etc.
 - $\hfill\square$ Provision for unforeseeable events
 - $\hfill\square$ For old age and retirement
 - \Box Vacation & travel

- $\hfill\square$ Provision, in case that I am unable to work because of illness
- \Box Purchase of a privately owned home
- $\hfill\square$ Make use of government incentives to save
- $\hfill\square$ Funding of own education and studies
- $\hfill\square$ Repayment of debt

<u>lf no:</u>

- 7. Why do you not save (select all that apply)? Textbox to allow answer to be typed
- 8. Would you be in favour of private workplace pensions for retirement savings to supplement the state pension? □ Yes
 - 🗆 No
- 9. Would you save into a private workplace pension for retirement saving as well as the state pension?
 □ Yes
 - \square No
- 10. Would you trust a private workplace pension that was provided by your employer?
 - □ Yes
 - 🗆 No
- 1. This question will be used twice to try to test anchoring on the amount suggested for savings rates. 50% of those who are being considered for occupational pensions will get version one, and 50% will get version two. V.1 Would you be willing to save 3-5% of your monthly salary into an occupational pension if your employer also paid in 3-5%?

V.2 Would you be willing to save 6-8 % of your monthly salary into an occupational pension if your employer also paid in 3-5%?

12. How much do you think you would need to save, as a percentage of salary, into a private pension to have a chance of having a good occupational pension in retirement? Drop down list of 0-100%