

Preparing for leaner pensions

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In the coming decades, the European countries will be confronted with rising costs related to population ageing. Based on very optimistic assumptions, simulations carried out by the EU's Economic Policy Committee suggest that these costs are manageable. Persons that enter the workforce now are unlikely to retire under the same conditions as those who retire at the moment. The transition to leaner public pension schemes calls for accompanying measures such as incentives to remain longer in the labour force and inducements to better prepare retirement. In particular, the authorities could inform employees regularly about their pension rights and encourage them to increase their retirement savings.

Over the past decade, Europe's pension regimes have been successful in meeting their social objectives. The relative income position of old-age pensioners has markedly improved. Between 2005 and 2018, the at risk of poverty rate for those aged more than 65 year declined by 7 points in the EU and is even well below that of the overall population in many of the member states.¹ In 2018, the poverty rates for the elderly are lowest in Denmark (9.6%) and France (9.9%).

However, population ageing provides an enormous challenge to the sustainability of the European public pension systems. As the public pensions are financed by pay-as-you-go systems (PAYG), the rising pension burden has been increasingly shared among less numerous cohorts.

In this study, we concentrate on pension adequacy for future pensioners. Following pension reforms, already implemented or to be expected, public pension entitlements are likely to be less generous for them. Many workers are not aware that they might retire in future on the less favourable conditions than those that are currently leaving the labour market. Better information should be given to them in order to adapt savings to their expected retirement pension.

Financial consequences of population ageing

The European public pension systems are based on a PAYG system. It is an intergenerational contract, whereby those in activity pay for those in retirement. They are willing to do that as they expect that future generations will pay for them once they retire. The contract does not only bind current generations of pensioners and workers, but also generations not yet active or even those not yet born.

The importance of the public pension regimes in Europe are well illustrated in chart 1. In many European countries, public pension schemes are virtually the only source of income for the elderly population. In the English-speaking countries and the Netherlands, the

public pension regime is only a basic pension, which is supplemented by mandatory or voluntary private schemes.

Income source of people 66+, % of disposable revenue

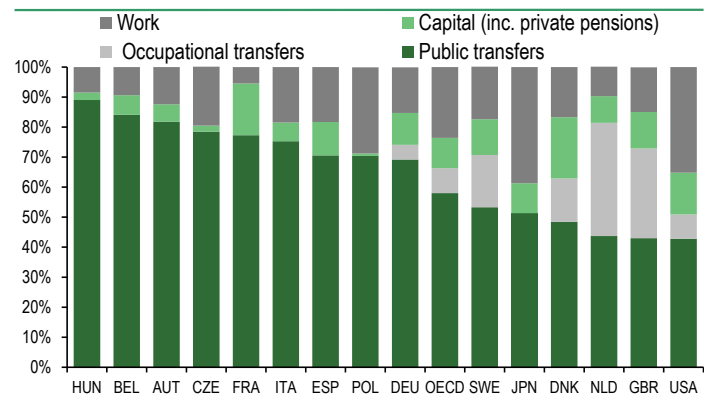


Chart 1 Source: OECD

The public pension systems have been successful in reducing dramatically poverty among the elderly in the EU countries (chart 2).

At risk at poverty: individuals aged 65 and older

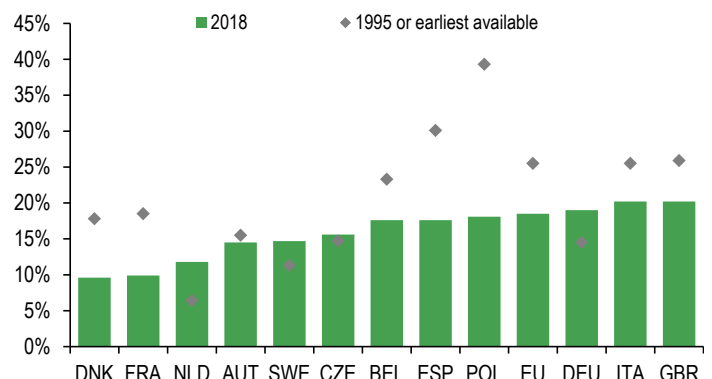


Chart 2 Source: Eurostat

In some countries, mainly in the EU-15, the income position of the elderly is even better than for the working-age population aged between 25 and 54 (chart 3).

¹ The at-risk-of-poverty rate is defined as the percentage of the population living in a household whose income falls short of the poverty threshold, put at 60 % of national median equiweighted disposable income, i.e. taking into account differences in household's size and composition

The situation has also improved in central and eastern Europe. As a result, elderly people have become more independent and many of them are able to enjoy retirement in reasonable comfort.

At risk of poverty rate : 65+ compared with prime-age workers (25-54)

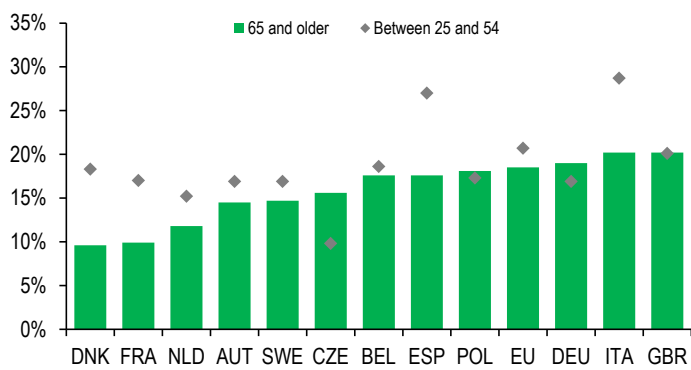


Chart 3

Source: Eurostat

A major threat to the pension system is the rise of the old-age dependency ratio over the next 30 to 40 years. According to Eurostat's long-term demographic projections, the number of working-age people per pensioner will halve by the year 2050 going from 3.5 to 1.8 at EU level. The demographic effect of the post-war baby boom will start decreasing at around 2030 and is expected to disappear not earlier than the middle of the century.

An intergenerational contract is rather fragile and could break down if current workers expect receiving only small pensions in return for their contributions. In that case, working generations would resist paying these high contributions, which would send the pension system crashing down. Hence, it is important that legislators keep an eye on the long-term sustainability of the pension system. However, knowing the resistance of the population against pension reforms, governments are usually rather reluctant to embark on such a project. In fact, in an unfunded system, governments do not reap the rewards of such reforms. On the contrary, it is tempting for them to improve on pension promises, as they do not cost anything in the short-run.

Insight in the economic consequences of population ageing can be gained from the 2018 Ageing Report of the EU's Economic Policy Committee (see table 1, page 16).² The report presents different scenarios using the Eurostat population projections and assumptions concerning a set of exogenous macroeconomic variables covering the labour force, labour productivity and real interest rates. The projections are policy neutral, i.e. all the voted policies are included. In order to capture country specific circumstances, the projections for pensions were run by the Member States using their own national model.

In the baseline scenario, the age related spending – public pensions, health care and long-term care – is projected to increase moderately from 19.6% of GDP in 2016 to 21.4% of GDP in 2070, largely due to increased spending on health care and long-term care. Public pension

spending in the EU, the main focus of this article, is projected to rise from 11.2% in 2016, peak around 2040 at 12% of GDP, before declining to 11% of 2070. From this perspective, the financial consequences of population ageing look manageable. This is the case not only for the EU as a whole, but also for the individual member states.

However, there are large risks associated to this central path. Even small deviations from the assumptions could result in a significant derailment of public finances in the long-term. One of the crucial assumptions is that related to productivity growth. The European scenarios assume that total factor productivity growth will increase from 0.5% in the period 2016-2020 to 1% from 2040 onwards. The choice of this relative high productivity rate maintained over 50 years is not explained.

It is questionable if the past provides some guidance for future productivity growth. In case of heightened uncertainty, a more prudent productivity assumption would have been warranted. It is true that we probably have not exploited yet all the advantages of digitalisation of the economy. On the other hand, some authors have warned that population ageing could weigh on productivity growth.³ Secondly, climate change is likely to weigh on the world growth prospects in the coming decades. Productivity growth is likely to slow due to the implementation of strict environmental regulations.⁴ In addition, the negative effects of climate change on growth are likely to weigh on productivity growth⁵. To test the sensitivity of this crucial assumption for the results, simulations are also made using a slightly lower total factor productivity growth rate (0.8%). In this scenario, the total pension costs could end up 0.8 points of GDP higher.

In addition, even though only adopted reforms have been included, for some countries these policies may result in socially undesirable results, which make it likely that the rules will be amended in future.

For example, some EU countries have linked the pensionable age to life expectancy. As a result, the normal retirement age for somebody entering the labour market in 2018 at 20 year will be around 70 in Denmark, the Netherlands and Italy. It is unlikely that this can be implemented as general rule.

Moreover, in some countries, cost savings are achieved by increasing the difference between the average pension and the average wage, the so-called benefit ratio. This ratio is affected by the legal framework concerning the calculation of the pension, the so-called replacement rate, and indexation rules. On average, the benefit ratio would diminish gross public pension expenditure by 3.3% points of GDP. In France, the benefit ratio could even decline by close to 5 points between 2016 and 2070 due to indexation of pension benefits to consumer prices instead of wages. The relative decline of pension benefits compared to average wages implies that the poverty risk of the retired population is set to

² The 2018 Ageing Report: Economic and Budgetary Projections for the EU Member States (2016-2070)

³ Maestas, Nicole, Kathleen J. Mullen, and David Powell, *The effect of population ageing on economic growth, the labor force and productivity*, No. w22452, National Bureau of Economic Research, 2016

⁴ Kozluk, Tomasz, and Vera Zipperer. *Environmental policies and productivity growth*, OECD Journal: Economic Studies 2014.1 (2015): 155-185

⁵ Kahn, M. E., Mohaddes, K., Ng, R. N., Pesaran, M. H., Raissi, M., & Yang, J. C. (2019), *Long-term macroeconomic effects of climate change: A cross-country analysis* (No. w26167), National Bureau of Economic Research



increase. The deterioration of the income position of the elderly corresponds with OECD calculations of actual and future replacement rate (chart 4).

Gross replacement rate from mandatory schemes (full career average male earners after labour market entry at age 20)

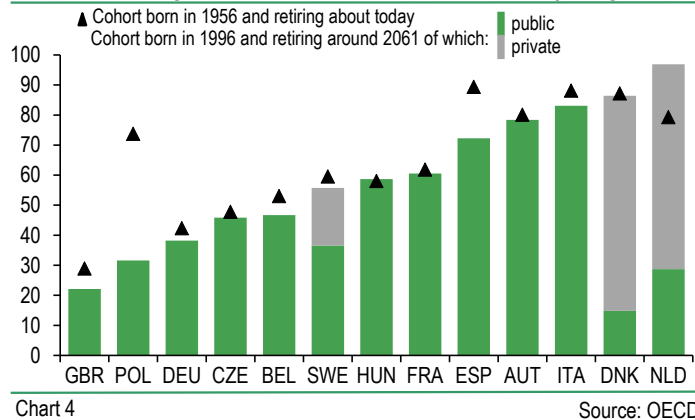


Chart 4

Source: OECD

Macro and micro savings behaviour

The European projections suggest that the financial consequences of population ageing are manageable, but that the income position of the elderly is likely to deteriorate as a result of the projected or anticipated pension reforms. An important question is how workers will react to changes in generosity of pension earnings. Will it induce them to work longer or do they prefer to increase their savings and quit the labour market at the earliest possibility?

The traditional economic approach is the life-cycle theory of consumption developed by Franco Modigliani.⁶ His idea was that forward looking economic agents operating in perfect markets will rationally plan their consumption over their lifetime in order to maximize lifetime utility. During their years in activity, they will save sufficiently in order to maintain, in combination with their pension benefits, their consumption levels in retirement.

Modigliani's life cycle model predicts a link between household savings and the age composition of the population. At a macro level, there is indeed ample evidence that countries with more elderly populations, which save less or even use their savings for their expenditure, tend to have lower savings rates⁷

However, using micro data, age-specific savings behaviour seems quite at odds with the predictions of the life cycle model. Poterba shows that age-specific personal saving rates in the G7 countries are positive for all age groups.⁸ The savings rate for those older than 64 is higher than

⁶ For a good overview see Deaton Franco Modigliani and the life-cycle theory of consumption, BNL Quarterly Review, vol. LVIII, nos 233-234, June-September 2005, pp. 91-107

⁷ See for example Wong, B., & Tang, K. K. (2013), *Do ageing economies save less? Evidence from OECD data*, International Journal of Social Economics

⁸ Poterba, J. M. (Ed.). (2007), *International comparisons of household saving*, University of Chicago Press

15%, which is actually only exceeded by those between 50 and 64. Households do not seem to run down their savings in retirement. Moreover, many workers nearing retirement do not have substantial savings and income from public pensions is their main income source.

His results were earlier confirmed for the Netherlands.⁹ In that study, it is shown that most households only have small savings to provide a buffer in the case of adverse events. Consumption is fully financed through social security and income from mandatory pension schemes. In the case of households with substantial savings, there is little evidence of decumulation of wealth. It suggests that that the bequest motive is important for the wealthier households.

David Miles suggests that the high savings rate that is reported in these micro studies might be partly related to the way it is calculated.¹⁰ Normally, the saving rate is calculated by savings over income. Assume that a retired person has two sources of income, pension income which is a constant annuity at level P and income from other sources Y_t.

Assuming that a fraction of income is consumed, one could write:

$$C_t = \alpha(P + Y_t)$$

In this case the savings rate is 1-α

The annuity is calculated by means of a mortality table so that at the end of the person's life all assets would be depleted. Miles' true savings rate takes into account the (notional) decline of the person's assets until his death. Consider plausible values (α=0.85, the interest rate r = 0.04) and assume that the person is only 10 years from his death. The conventional savings rate is 0.15. However, once we assume that the person has completely used his assets by the time of his death, the corrected savings rate is -28%. The closer the person is to the hour of death, the higher the decumulation of assets and the lower the savings rate. Five years before his death, the corrected savings rate is -44%.

Miles studied the question in the context of funded retirement assets. In most of Europe, the pension schemes are unfunded. It does not change the analysis fundamentally. The value of pension assets in a funded scheme can be viewed as the present value of the income stream from the assets and future contributions.¹¹ It is evident that this value fluctuates with interest rate expectations, stock price indices etc. Public pension received from a PAYG system could be similarly valued as the present value of the pension benefits. Also the present value of PAYG pensions fluctuates, although less than that of funded schemes. However, to the extent that a PAYG system is debt-financed, the effect of interest rate fluctuations nets out: when rates decline, the net present value (NPV) of future payments increase but borrowing costs decline as well, enabling the public sector to cope with the higher NPV. Depending on the indexation rule, wage and price developments could play a role.

⁹ Alessie, R., Lusardi, A., & Kapteyn, A. (1995), *Saving and wealth holdings of the elderly*, Ricerche Economiche, 49(3), 293-314

¹⁰ Miles, David. *Modelling the impact of demographic change upon the economy*, *The Economic Journal* 109.452 (1999): 1-36

¹¹ Nowadays, most privately funded schemes are defined contribution schemes, in which the person's future pension depends on the amount put into the fund and the fund's investment performance. By contrast, the public PAYG systems are defined benefit schemes, in which the fund guarantees a benefit related to the salary earned.



A major uncertainty is the possibility that the government can change the rules in particular for budgetary reasons.¹²

Longer working or increasing savings

Micro data are a rich source of information for studying savings and a wealth of data of age clusters. However, as they only are available for relatively short time spans, they are of limited use in analysing the macroeconomic consequences of population ageing. In this case, overlapping generations models, first introduced by Auerbach and Kotlikoff, are a more promising alternative for policy analysis.¹³ By using plausible values for the parameters, the transmission channels of policies that deal with population ageing can be analysed and the robustness of the results tested.

Oliveira Martin et al. use simple overlapping generations models for some OECD countries including Germany and France.¹⁴ The baseline assumes that no policy changes are introduced. To keep the pension systems balanced, pension contributions have to be raised. In France, the replacement rate remains fixed at 64% and the contribution rate doubles to around 40% by 2050.¹⁵

The base scenario serves as reference for two alternative reform scenarios. In the first reform scenario, the retirement age is gradually increased, roughly in line with the increase in longevity. Replacement rates remain the same and the contribution rates are adapted to keep the pension regimes balanced. In this scenario, the contribution rate has still to rise but to a lesser extent. In France, the contribution rate is set to increase by around 6 points to 28% of taxable revenue. Percentage-wise this represents a very considerable increase. In Germany, contribution rates remain around the same level reflecting the less generous German pension regime. Due to the increase in the retirement age, labour force participation increases, resulting in a decline in the capital-labour ratio.

In the second reform scenario, the contribution rates are frozen and the replacement rates are gradually reduced for new retirees. Both in France and Germany, the replacement rate would drop by more than 20 points in the long-term compared to the base scenario, to around 37% and 30%, respectively. As workers are forward-looking, they are increasing their savings to maintain their consumption in retirement. As a result, long-term interest rates continue to decline.

In terms of GDP, the base scenario or no-reform scenario is the worst. Because of the increase in contribution rates, in particular in France, Germany and Japan, workers in these countries increasingly prefer

leisure to working. As a result, GDP per capita declines in these countries relative to the one in the US. The two reform scenarios demonstrate that policies that aim for increasing the retirement age or improve pension saving are best in softening the impact of ageing on growth. In the latter case this is due to the positive impact of lower long-term interest rates on growth.

How much do we need in retirement?

A major question is how much is needed in retirement. In the case of the US, the estimates of replacement rate vary between 65% and 85% of preretirement income. A recent study by Ghilarducci, Papadopoulos and Webb assumes a replacement rate target of 85 percent for workers earning below USD 40,000, a 75 percent target for workers earning between USD 40,000 and USD 115,000, and a 65 percent target for workers earning more than USD 115,000.¹⁶

US social security replaces around 43% of the pre-retirement income of workers earning less than the median, implying that these workers need 42% of their earnings from retirement savings to reach the 85 percent target mentioned in Ghilarducci et al. As about 50% do not have any retirement plan, they have a high risk of falling into poverty. Even in the case of low income earners with retirement plans, these plans replace only 14% of pre-retirement income in the case of only a defined contribution scheme and 24% in the case of a defined benefit scheme. This is insufficient to arrive at the 85% target replacement rate for this income group.

A typical assumption in these studies is that the person wants to maintain a constant level of consumption. In a highly interesting study, Scott, Shoven and Slavov question this assumption.¹⁷ In an earlier study, the same authors already argue that the target replacement rate should be adjusted in response to low returns and low wage growth. They argue that a fall in the rate of return on safe assets implies a substantial hit to wealth accumulation. This wealth effect lowers optimal consumption both for the rest of the working career and in retirement. For the case that personal time preferences remain unchanged, future consumption becomes more expensive relative to current consumption, as you need more assets today, which will accumulate with the lower risk-free rate to be able to finance future spending. This would encourage bringing forward consumption, resulting in lower saving. This is contrary to the often heard argument that workers should save more in order to maintain their standard of living in retirement.

Life cycle models often make the simplified assumption of maintaining consumption constant in retirement. However, such behaviour may not be optimal for retirees. Some researchers have found that consumption in early retirement tends to exceed sustainable consumption and declines rapidly afterwards. An important reason is the low level of (real)

¹² In Greece, public pensions were drastically cut as pre-condition for receiving aid from the European Commission, the ECB and the IMF.

¹³ Kotlikoff, L. J., & Auerbach, A. (1987), *Dynamic Fiscal Policy*. Cambridge University Press. For an application for France see, Raymond Van der Putten, *Saving for retirement*, BNP Paribas Conjoncture, July-August 2014.

¹⁴ Martins, J. O., Gonand, F., Antolin, P., & Maisonneuve, C. de la, Yoo, K.-Y. (2005), *The impact of ageing on demand, factor markets and growth* (No. 420), OECD Economics Department Working Paper

¹⁵ Contrary to the EU Ageing Report, the OECD study leaves the parameters of the pension regimes at their actual values and do not take into account already voted policy changes.

¹⁶ Ghilarducci, T., Papadopoulos, M., & Webb, A. (2017), *Inadequate retirement savings for workers nearing retirement*, Schwartz Center for Economic Policy Analysis and Department of Economics, The New School for Social Research, Policy Note Series

¹⁷ Scott, J. S., Shoven, J. B., Slavov, S. N., & Watson, J. G. (2020), *Can Low Retirement Savings Be Rationalized?* (No. w26784), National Bureau of Economic Research



interest rates. It implies that the market return to patience, i.e. the real interest rate, is zero or even less. As almost anybody prefers to consume now rather than tomorrow, consumption will be downward sloping over time.

A second reason is the risk of mortality and serious health problems. Many lifecycle models do not incorporate these risks and allow the agent to run down his assets till the end of his life. In reality, mortality and health risks increase with age. As the end of life is uncertain and certain kinds of consumption, such as holidays, might be limited in future by health constraints, people might be tempted to bringing consumption forward, thus steepening the negative slope of consumption of people in the retirement years.

Annuities and reverse mortgages are possible solutions for overcoming the risk of assets depletion before dying. However, annuities are quite expensive because of adverse selection. In calculating the price of the annuity, the insurer that is taking on the longevity risk, reckons that buyers are in relative good health and that their average life expectancy is superior to the average of their age group. Moreover, the payout of the annuity, a constant amount until the holder's death, does not necessarily correspond with the optimal consumption pattern of a retiree. As the person gets older, personal consumption might be limited by health problems, while medical expenses are, in general, covered by insurance.

Finally, the lack of retirement savings may be attributed to the generosity of the social security system. Hubbard *et al.* find that under uncertainty, asset-based means tested social-insurance programmes depress saving for two distinct reasons.¹⁸ First, by lifting the uncertainty in the case of adverse events such as large medical expenses, the social programme decreases the need for household to build up precautionary savings. Second, households with sufficient assets disqualify for these programmes and, in the case of a bad event, have to pay the costs of these expenditures themselves. This can be perceived as heavy wealth tax.

Preparing for retirement

The interesting question is how the active population is prepared for the changes already implemented and those to come. How many young people that actually enter the labour market are conscious that their pension might be less generous than those for preceding generations?

According to the 2016 AVIVA Consumer Attitude Survey conducted in several European countries, half of those not yet retired are worried that they will not have enough money at retirement. However, only a third is taking steps to amend it. Among the strategies mentioned are regularly setting money aside and taking out a private pension, the latter in particular in Ireland and the UK. Also many respondents –around 30% in Italy, France and Spain - expect to use their home for retirement income, despite being a less liquid asset. In addition, an increasing number of elderly are working beyond the legal retirement age. More

¹⁸ Hubbard, R. G., Skinner, J., & Zeldes, S. P. (1995), *Precautionary saving and social insurance*, Journal of Political Economy, 103(2), 360-399

than half of the respondents in the AVIVA survey declare that they have continued to work as they needed the money. As a result, after having declined for several decades, the effective retirement age started to rise again in the OECD (chart 5).

Average effective age of retirement

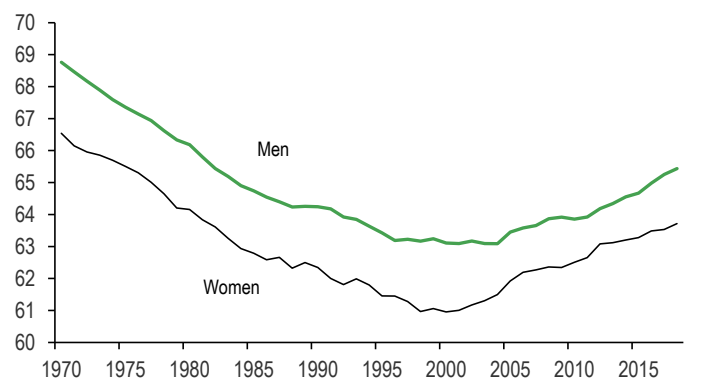


Chart 5

Source: OECD

Several studies indicate that retirement savings could be considerably increased through information and financial education. In Germany, as of 2005, the public pension administration has been sending out annual letters to individuals older than 27 to inform them about their expected pension payments. A group of researchers studied the reaction of employees on receiving the letter by exploiting the savings difference between 26 and 27 year-olds.¹⁹ As a result of the information letter, the 27 year-olds indeed stepped up their saving. The full increase does not materialise immediately, as people have to collect information concerning the best way to increase their savings. The researchers did not find evidence that the increase in private retirement savings was crowding out other forms of saving.

Research in the US confirms that providing more information about their post-retirement income is a good way for boosting retirement savings. Esther Dufo and Emmanuel Saez report an experiment at a large university.²⁰ The university provides a complementary Tax Deferred Account plan (TDA). In order to boost participation, the university organises an annual fair. It is clear that those who attend the fair are also those who are most likely to sign up or change their benefit choices. Dufo and Saez selected a random sample of employees not yet enrolled in the TDA and sent them an invitation letter promising a USD 20 reward for attending the fair. It turned out that these individuals were three times as likely to attend the fair as those in the control group. Moreover, control individuals that worked in the same departments as those who received the invitation letter were twice as likely to attend the fair as those in other departments, even though they did not receive the USD 20 award. This shows the importance of peer effects.

¹⁹ Dolls, M., Doerrenberg, P., Peichl, A., & Stichnoth, H. (2018), *Do retirement savings increase in response to information about retirement and expected pensions?* Journal of Public Economics, 158, 168-179

²⁰ Dufo, E., & Saez, E. (2003), *The role of information and social interactions in retirement plan decisions: Evidence from a randomized experiment*, The Quarterly Journal of Economics, 118(3), 815-842



Many US companies offer pension plans to their employees. In the past, employees had to explicitly sign up for the plan. Despite the considerable benefits for the participants in terms of tax-free savings, many failed to do it because of the administrative work involved, typically filling out a short form. Nowadays, automatic enrolment has become the rule. This has been a remarkable success. In one plan studied by Madrian and Shea, participation rates for newly eligible workers increased from 49% to 86%.²¹ However, most participants joined at a modest saving rate, around 3% of income and didn't adjust this subsequently. As a result, many employees retire with inadequate pensions.

Richard Thaler and Shlomo Benartzi designed a scheme, called 'Save More Tomorrow' in which the savings rate is automatically adjusted.²² In this scheme, participants commit in advance to allocate a portion of their future salary increases toward retirement savings. It is a nice application of behavioural finance. The programme has been very successful in increasing retirement savings. 'Save More Tomorrow' may have helped approximately fifteen million Americans significantly boost their savings rate.

According to the 2018 EU ageing report, the financial consequences of population ageing are manageable. Public pension is projected to rise from 11.2% in 2016, peak around 2040 at 12% of GDP. However, the macroeconomic assumptions look rather optimistic. In particular, the scenarios assume that total factor productivity growth will be around 1% in the long-term. Under more prudent assumption, the costs of population ageing could substantially increase as a percentage of GDP.

In addition, the European scenario assumes some drastic reforms, which have already been voted but are unlikely to be fully implemented. In particular, in some countries, the legal retirement age could increase to around 70. Moreover, the scenario assumes a substantial relative decline of the average pension compared to the average salary. In some countries, the risk at poverty among pensioners, i.e. receiving less than 60 % of national median equivalised disposable income, could substantially increase without additional measures.

Nevertheless, even if the already voted measures cannot be completely applied, one should assume that state benefits for future pensioners will be substantially lower than those that currently retire. In order to prevent that large groups of pensioners will be at risk of poverty, this transition should be better accompanied.

In the first place, it is important that people are incentivised to remain longer in the labour force. In that respect, European firms can learn from experiences in other OECD countries such as Japan or the US.

In the second place, employees should be encouraged to better prepare their retirement. In particular, the authorities could inform employees regularly about their pension rights. In Germany, all employees of 27 and older receive this information each year from the pension authorities. The earlier employees are informed, the more time they have to increase their personal savings.

Finally, in countries where personal pension schemes exist, employees should be encouraged to take out such a scheme. In some countries, employers already offer their employees a pension scheme as default option. If employees want to opt out, they have to take action. However, often the contributions to these schemes are rather low. Employees should be encouraged to regularly increase their contribution. The Save More Tomorrow scheme is a good example of a well-functioning savings scheme in the US, which can also be applied in Europe.

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²¹ Madrian, B. C., & Shea, D. F. (2001). *The power of suggestion: Inertia in 401 (k) participation and savings behavior*. *The Quarterly journal of economics*, 116(4), 1149-1187.

²² Thaler, R. H., & Benartzi, S. (2004). *Save more tomorrow™: Using behavioral economics to increase employee saving*. *Journal of political Economy*, 112(S1), S164-S187.



EU 2018 Ageing report: base scenario

Country	Public pensions % of GDP		Benefit ratio(*)		Effective retirement age	
	2020	2070	2020	2070	2020	2070
AUT	13.9	14.3	50.5	38.9	62.6	63.7
BEL	12.6	15.0	42.3	40.4	63.4	64.3
BGR	9.1	10.9	29.6	30.1	63.4	64.4
CYP	10.2	12.4	58.2	40.8	64.1	67.7
CZE	8.1	10.9	38.0	37.3	62.3	63.5
DEU	10.3	12.5	42.0	35.5	64.5	65.5
DNK	9.3	8.1	40.6	34.5	65.6	68.0
ESP	12.3	10.7	55.1	37.6	65.3	66.4
EST	7.8	6.4	34.6	19.9	64.6	65.0
FIN	13.8	13.9	53.1	46.1	63.6	67.8
FRA	15.0	11.8	49.6	35.9	62.6	64.5
GBR	7.7	9.5	28.4	28.5	64.7	65.8
GRC	13.4	10.6	64.2	41.6	62.9	68.1
HUN	10.4	6.8	31.2	17.8	61.8	63.9
HUN	9.0	11.2	37.1	32.7	62.8	65.1
IRL	5.1	6.6	26.3	26.8	65.2	66.0
ITA	15.6	13.9	60.7	46.3	66.2	68.4
LTU	7.0	5.2	33.1	19.3	62.5	64.0
LUX	9.0	17.9	53.8	52.4	60.3	60.3
LVA	6.8	4.7	22.8	12.1	63.6	65.2
MLT	7.8	10.9	47.6	39.3	61.8	63.3
NLD	7.0	7.9	32.9	34.0	65.2	68.3
POL	11.1	10.2	44.8	22.9	62.9	62.9
PRT	13.6	11.4	57.9	34.0	65.4	66.4
ROU	7.3	8.7	31.9	26.0	63.2	63.3
SVK	8.3	9.8	44.4	38.4	61.8	67.2
SVN	11.0	14.9	30.1	31.0	62.6	62.6
SWE	7.6	7.0	36.2	22.1	65.0	65.0
EU	11.1	11.0	42.0	32.9	64.2	65.6
EA	12.3	11.9	43.0	33.5	64.4	66.0

*average pension as % of average gross wage

Table 1

Source: European Commission



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