THE MALTESE PENSION SYSTEM

AN ANALYSIS OF THE CURRENT SYSTEM AND OPTIONS FOR REFORM

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World Bank
March 2004

I. THE ROLE OF PENSION SYSTEMS

1.01 Pension systems are initiated by governments for a variety of reasons, but primarily should be designed to alleviate poverty when individuals can no longer work, whether because of age or because of invalidity, and should provide adequate, but fiscally sustainable pensions. Pension programs typically also provide benefits upon the death of a worker or income earner to help provide income for the family he would have supported, mainly a spouse and children if the children are below a certain age. Pension programs can have a significant impact on labor markets as they are usually funded by employer and employee contributions, adding to labor costs, but also because they can provide workers with incentives to remain in the work force or to withdraw early, to properly declare earnings or to under-declare earnings, and to work in the informal sector, for example. The objective of the pension system should be to alleviate poverty during old age by providing adequate and affordable pensions, minimizing as much as possible adverse incentives on the labor market.

1.02 Why does the government get involved in pension provision? There are at least four compelling reasons for the government to take a hand in providing pensions. First, while private sector institutions could provide savings vehicles for retirement savings, historically, the security of these institutions for contracts, which last over 60 or more years, was not assured. Second, since one objective of the pension system is poverty alleviation during old age, people who were poor during their lifetimes and did save might still find themselves falling into poverty during old age. Only the government can formally transfer money to these individuals. Third, individuals given free choice of whether to save or not often exhibit myopic behavior, ignoring the future for consumption today, resulting in many people who would fall in poverty during old age. The government thus mandates a contribution, a forced saving plan in some ways, to prevent poverty in old age. Finally, because the government usually takes upon itself the mandate to prevent the elderly from falling into poverty and providing for them, the government mandates contributions from workers to prevent people who can afford to save from themselves from relying excessively on the government's assistance.

1.03 In the late nineteenth century, the first public pension programs began to appear. Almost all were initially funded programs, where employee and employer contributions were collected and somehow invested, primarily in government bonds since few other financial instruments existed. It was quickly discovered that when the population and labor force are expanding, contributions from current workers could be used to pay the few benefits required to the extremely small number of beneficiaries, without the need for the money to be formally invested. In fact, the expanding labor force allowed the benefits to be made more generous over time. The benefits thus expanded from an initial poverty alleviation focus into a more generous income replacement focus. All of this worked while the population grew and labor force expanded. As population growth and labor force growth began to stagnate, all of the pension programs throughout the OECD and the world have begun to experience significant fiscal problems. The promises made during a time of rapid labor force growth are simply not financeable when labor force growth stabilizes and when rapid medical advances continue to lengthen life expectancy, particularly at older ages. As a result, countries around the world find themselves in the predicament of raising contribution rates, raising retirement ages and cutting benefits. Countries are also returning to the concept of investing contributions and pre-funding retirement expenditures, whether on an individual basis or collectively,

as a means of achieving the higher rates of return available from the capital markets when compared with the low rates of return generated from the growth in the wage bill.

1.04 This overview provides a background from which to view the current Maltese pension system. Malta quickly moved from one stage of social security provision to the next. The pre-1979 system, while not funded, was much more focused on poverty reduction, through the national minimum pension, with income replacement above and beyond poverty level left to occupational plans. In 1979, the movement to a two-thirds pension changed the focus to income replacement. The provisions have become more generous over time with individuals being given credit for pre-1979 years of contribution in the two-thirds system. But like many other countries, Malta is reaching a point where the pension system needs to be seriously revisited to insure that it can provide adequate and fiscally sustainable benefits for workers in the future.

II. CURRENT PENSION SYSTEM IN MALTA

2.01 The current Maltese pension system is a traditional defined benefit pay as you go system with contributions from current workers being used to finance benefits for current pensioners. The pensions are determined by a formula based on the average of the best 3 out of the last 10 years' salaries for employees and the average of the last 10 years' salary for the self-employed, with a pension equal to two-thirds of this average wage for those having contributed 30 years. Fewer years of contribution result in linearly reduced pensions, with the minimum years of contribution required to collect a pension set at nine.

2.02 As expected in higher income countries like Malta, all employed individuals are contributing. The overall male labor force participation rates and coverage rates are around 90%. Approximately 92% of males in their twenties are employed, rising to 93% in the thirties' age bracket and tapering off to 89% and 85% in the two subsequent age brackets. The female labor force participation rates are quite different, with similar patterns to male between the ages of 21 and 25, but then dropping off sharply to 58% by age 30, to 31% by age 40, and to 28% by age 50. Unlike countries where women appear to return to work after their childbearing years, in Malta, most of the women who drop out of the work force appear to remain outside in later years as well.

2.03 Among retiree ages also, there is relatively high coverage. While only 66% of males over the age of 60 receive 2/3 old age pensions, another 33% receive partial pensions from the state while the remainder of their pension comes from old occupational plans, and another 1% continue to receive invalidity pensions. The lower percentage of 2/3 pensions reflects system immaturity since the current 2/3 pension only began in 1979. On invalidity, if an invalid person has enough years to qualify for an old age pension, at retirement age, the pension is converted to the higher old age pension, so few individuals continue receiving invalidity pensions. By contrast, but consistent with lower labor force participation, only 19% of women over the age of 60 receive their own old age pensions, 7% receive something from the public system to complement an occupational pension, 29% receive widows' pensions, and only 0.1% require invalidity pensions.

2.04 The pensions are funded by contributions of 10% each by employer and employee, with an additional 10% coming from the government. The self-employed pay only 15%, with 7.5% coming from the government. However, these contributions are used to fund a variety of benefits in addition to pensions, including health and social assistance with none of the contribution earmarked for one type of benefit or the other.

2.05 A critical feature of the Maltese pension system is its ceiling on income subject to contributions. Currently, this ceiling is 78% higher than average wage. However, the ceiling is increased each year only by COLA (the cost of living adjustment) which is roughly 80% of annual inflation. As a result of positive real wage growth, the ceiling will rapidly fall below the level of average wage and even minimum wage. While pensions are indexed to wage growth, they are subject to a maximum pension, which also only grows with COLA. Thus, pensions will soon be reduced, not by changes in the benefit formula, but by hitting the cap on maximum pensions.

2.06 Fiscal Sustainability

2.06 (i) Based on contributions of employer and employees only, which is the usual basis for looking at pension systems, the current system is running a moderate deficit of 1.2% of GDP in 2003, which is currently being covered by the government contribution of 10% of salary. However, this government contribution is also needed to cover health expenditures, expenditures for social assistance both to the elderly and other age groups, family allowances, and a variety of other social programs. Based on projections from the World Bank's PROST model, the deficits accelerate to 3.5% of GDP by 2015 and to 4.7% of GDP by 2030 before leveling off in the future. By 2011, the full 10% government contribution will be insufficient to cover the deficit in pensions, leaving nothing left for the other social benefits.

2.06 (ii) Why does the system turn around? A large part of the answer stems from the demographics. Currently if the working age population is assumed to be all those above age 15 and retirees those above the retirement age, there should be 3.9 workers per old age retiree. At the demographic peak, there will be no more than 1.3 workers per retiree. However, looking at the actual pension system, the change is more drastic. Currently, there are about 5.8 workers per 2/3 pensioner, more than the demographics would suggest. This is largely because many of those retiring under the old occupational schemes are receiving only top-up pensions and not the full 2/3 pension, a function of the immaturity of the system. In the future, the projections suggest that there will be 1.0 worker per 2/3 pensioner. The difference from the demographics arises from the fact that the labor force participation rates of those below the age of 25 and definitely below the age of 20 will be quite low in the future, further limiting the number of workers available to support the same stock of old age pensioners. Furthermore, the system finances more than just 2/3 pensioners. When all pensioners, invalids, widows, survivors, and top up pensioners are considered, there are only 2.6 workers per pensioner today and in the future there are projected to be only 0.9 workers per pensioner.

2.06 (iii) Given these demographics, it is not difficult to figure out why the pension system will be running a deficit. In pay as you go systems, revenues come from contributors paying a percentage of average wage. Expenditures come from the pensioners who are paid a pension, which can also be expressed as a percentage of average wage. If there are currently 5.8 workers per 2/3 pensioner, the system could afford to pay 2/3 pensioners 116% of average wage if there were no other pensioners to pay or the contribution rate of 20% multiplied by 5.8. Given the other pensioners, the system could afford to pay 52% of average wage per pensioner, with the invalidity pensioners and survivors of course receiving less than 2/3 on average, while the 2/3 pensioner of course receives 2/3. In the future, the system could pay only 20% of average wage to the 2/3 pensioner or if all benefits are considered, only 18% of average wage per pensioner. So clearly in a scenario where the system must provide individuals pensions equal to 2/3 of their salaries as well as to provide other benefits, the system will run deficits, and relatively large deficits, with the revenues in the future able to cover only 27% of expenditures compared to 92% today.

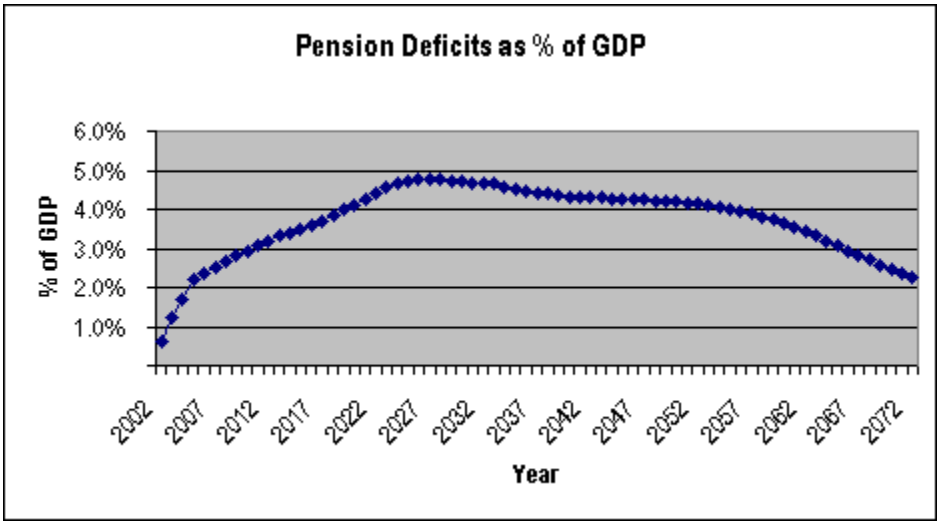

Figure 1: Pension Deficits as % of GDP

2.06 (iv) The pension deficits as projected by PROST are shown in Figure 1. There is a large increase in the deficits in the medium term relative to GDP since wage growth, which affects revenues, is reduced relative to GDP given projected increases in labor force participation by women. Later the impact of the binding constraint imposed by the ceiling on income subject to contributions together with the binding constraint of the maximum pension reduce pension expenditures relative to contribution income, resulting in some improvement in the fiscal accounts. However, as noted in the next section, the cost of this improvement is a sharp deterioration in the level of benefits. The long run is also improved by projected increases in fertility to 2.1 children per woman from the current level of 1.37. These projected increases in fertility may not, however, be achieved without positive action to actively encourage such a trend. The increased fertility leads to higher numbers of contributors in the last two decades of the simulation period without appreciable increases in the number of beneficiaries. However, when these new contributors begin to retire with no additional increases in fertility rates, the deficits will begin to increase again. The technical annex explores the very real possibility that the fertility increases do not occur, which results in the deficit remaining at the 2050 level for the longer term.

2.06 (v) Another useful indicator is the level of implicit pension debt relative to GDP. The implicit pension debt within the system is the present value of pensions to all existing pensioners for the years they are expected to spend in retirement taking into account indexation of pensions plus the present value of prorated pensions for all contributors, prorated for their years of service to date when compared to the total number of years expected to be accumulated by retirement age, and to be paid when the individual reaches retirement age. In other words, the implicit pension debt is the liability the government would be obligated to pay if the government wanted to suspend the system. It differs from the actual value of future pensions since the actual value in the future will depend on additional contributions made from this date until retirement. The implicit pension debt includes only the obligations to date. The value of the implicit pension debt is currently 193% of GDP or 3.154 billion Maltese liri. This is expected to fall under the current system to a more manageable 45% by the end of the period, but this fall comes at the expense of drastically lower benefits for workers.

2.07 Adequacy of Benefits

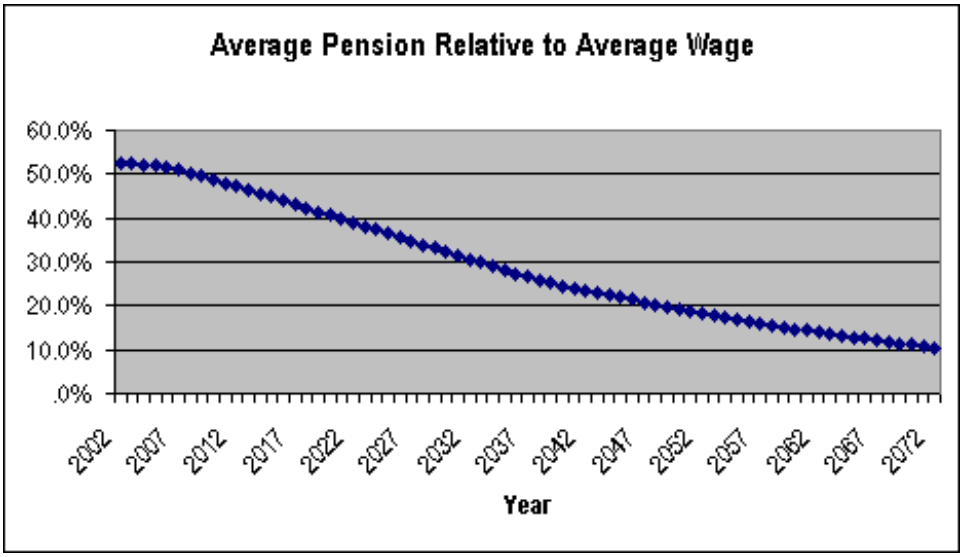

Figure 2: Average Pension Relative to Average Wage

2.07 (i) The average pension relative to average wage is strongly influenced by the ceiling on contributions. As noted above, this ceiling is 78% higher than average wage. However, the ceiling is increased each year only by COLA (the cost of living adjustment) which is roughly 80% of annual inflation. As a result, by the end of the period with positive real wage growth, the ceiling for income subject to contributions will end up around 19% of average wage. Since the pension depends on insurable earnings, the pensions paid will be at best 2/3 of the 19% of average wage, which is about 12% of average wage. While adequacy does not require a benefit equal to 100% of average wage, pensions, which are only 12% of average wage, are generally not considered adequate and may not fulfill the poverty alleviation criterion. Furthermore, while pensions during retirement are indexed to growth in civil servant wages within certain grades, the pensions are further constrained by a maximum pension, which also grows with COLA. At the end, everyone will be receiving the maximum pension. Figure 2 shows the evolution of the average pension relative to the average wage.

2.08 Pension System and Incentives

2.08 (i) In addition to fiscal sustainability and adequacy, pension systems also are judged on whether the design of the pension system encourages behavior on the part of labor market participants, which might be costly to society. While it may not be possible to remove all the disincentives within the pension system, the pension system should try to be as neutral as possible and minimize any adverse impact or incentives. In the case of Malta, there are several features within the pension system, which could be reconsidered.

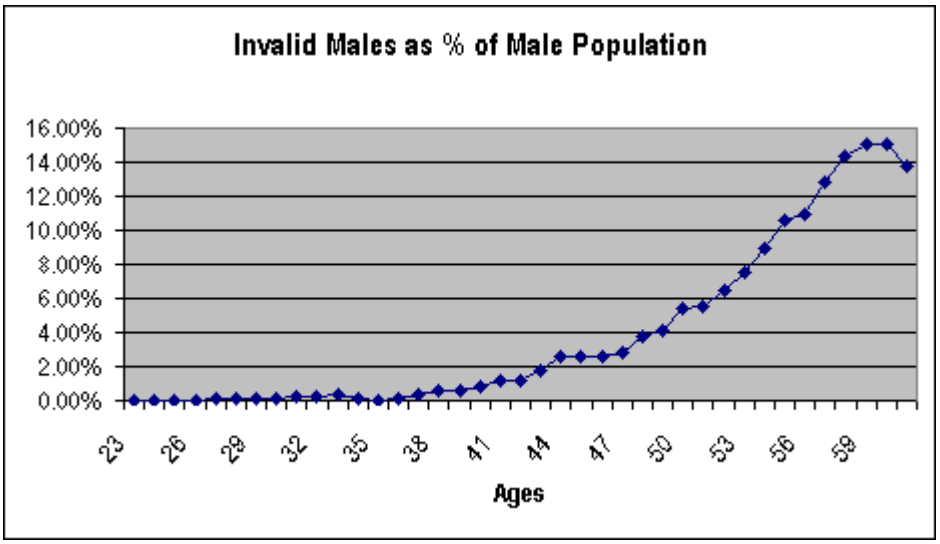

Figure 3: Male Invalidity Rates in Different Age Groups

2.08 (ii) **Cap on Benefit Accrual.** Currently the system allows individuals to accumulate a two-thirds pension after 30 years of service. The average length of service in Malta is 38 years at retirement, with no additional pension accrual during the last 8 years of contributions. It is unfair to require workers to continue contributing to a pension system and provide no additional benefits. Workers who begin work at age 20 or age 22 have clearly fulfilled their 30 years by age 50 or 52. What is the worker's response? Workers begin to seek invalidity benefits. Figure 3 shows a huge increase in invalidity rates as workers reach their mid-fifties. While invalidity rates always rise with age, the steepness of the rise in Malta is sharpened by the disincentives to remain within the pension system.

2.08 (iii) **Pension Based on Limited Years of Earnings.** Currently, the pension in Malta is based on the average of the best 3 of the last 10 years' earnings if employed or the average of the last 10 years' earnings if self-employed. Workers pay contributions throughout their lifetime based on their earnings throughout their lifetime. By basing the pension on the last years of salary, the link between contributions and benefits is broken, and workers who experience large wage gains in their last years of work, experience very high rates of return within the pension system while workers who experience only modest wage growth at the end, or even a downturn, experience less favorable rates of return. Typically, it is the highest earners who experience the largest wage gains at the end of their careers, resulting in a

redistribution toward high wage earners within the pension system and against lower wage earners, precisely the opposite of what government policy may have intended. Furthermore, knowing this, workers and employers frequently under-declare earnings during the early working years, knowing that it saves them money without affecting the worker's pension and raise wages substantially in the years which count toward the pension. This type of behavior leads to both loss of revenues in the pension system and an increase in expenditures.

2.08 (iv) **Tax base**. The 30 percent social security tax (1/3 each contributed by employers, employees, and government) is computed on cash received from normal salary. Hence, all in-kind and overtime payments are exempted from the tax. This tax base differs from the income tax base, which takes into account all income. This policy has several shortcomings:

- It delegates to employers and employees the opportunity to manipulate the tax base. Consequently, any long term financial projection of the system may prove to be wrong. The incentive to avoid taxation would be greater the higher is the tax rate.
- It distorts labor markets as employers will find cheaper to hire overtime work instead of hiring new workers, thus contributing to increase the unemployment rate and to reduce the system's coverage.
- To the extent that employers include non-taxable in-kind payments in lieu of higher wages, workers' welfare would diminish since they might prefer higher wages to the in-kind payments that the employers provide.
- The system's replacement rate does not have a one to one relation with the actual income during employment, which may defeat the objective of income replacement.
- It requires higher tax rates, which could convey the wrong information to the market. It may discourage direct foreign investments while prompting labor to exit the country.
- It increases administrative costs to employers and the tax authorities in dealing with different bases for the payment/collection of the income and social security taxes.

In order to correct these problems, we recommend adopting total wages (cash, overtime and in-kind payments) as the tax base, same as the base for the income tax. In so doing, and in order to preserve the financial position of the system and for equity reasons, benefits would have to be calculated as the average of those resulting from the current base and the new proposed base. This policy would allow reducing contribution rates.

2.08 (v) **Self-Employed Contribution**. The contribution of the self-employed is 15 percent and it is not income tax deductible. While contributions from employees are not income tax deductible, the 10% contribution made by the employer on behalf of the employee is not taxable income for the employee. On the other hand, the self-employed receive the same benefits as employees while contributing a lower overall amount. It is difficult to tell whether the net impact is to encourage or discourage self-employment.

To correct this distortion, we recommend that the contribution rate for self-employed be increased to 20 percent, the same as employers' and employees' contributions taken together and that 50% of that be deductible from income taxes, which would result in equivalent treatment to that of employees.

2.08 (vi) **Vesting Period**. Plan members contributing less than 9 years are not eligible to receive benefits. While it is logical that the pension arising from very few years of contributions may be so small that it is not worth issuing a monthly pension, most countries provide for a return of employee and employer contributions for those with short contribution periods. Otherwise workers who think that they might not qualify for a pension, such as women and immigrants, might choose not to contribute. In order to eliminate this problem, we recommend that all contributors receive benefits proportional to their period of contribution.

2.08 (vii) **Minimum Contribution for Part-Time Workers.** Currently all workers are required to make a minimum contribution. This required contribution represents a huge percentage of their earnings for part-time workers. We would recommend reducing this minimum contribution to make contributions and benefits commensurate with actual earnings.

2.08 (viii) **Discentives for Work After Retirement**. Currently earnings above the minimum wage after retirement are reduced directly from the pension amounts. This policy presents a disincentive for workers to continue working beyond the minimum retirement age. We would recommend removing this disincentive particularly when moving forward, since the low fertility rate in Malta will require encouraging older workers to continue working.

III. MALTA WITH RESPECT TO OTHER OECD COUNTRIES

3.01 How does the situation in Malta compare to other countries? Malta is in much the same shape as most OECD countries. All higher income countries are having to face aging of the population and are finding that aging puts strains on the pension system. In most cases, countries are changing the parameters of the original system in order to try and preserve fiscal sustainability, but the evidence suggests that most countries, have not succeeded yet in achieving fiscal sustainability. Exceptions include countries like the UK which have substantially curtailed benefit growth. The following graphs try to illustrate how Malta compares with other countries.

3.02 First, the demographics. All the OECD countries are experiencing aging of the population. When we compare the number of working age individuals to the number of people over retirement age, most of the OECD countries are already quite old, averaging 2.7 working age individuals per potential retiree. Malta, by comparison, is among the youngest third of the OECD, with 3.1 working age individuals per retiree, as shown in Figure 4.

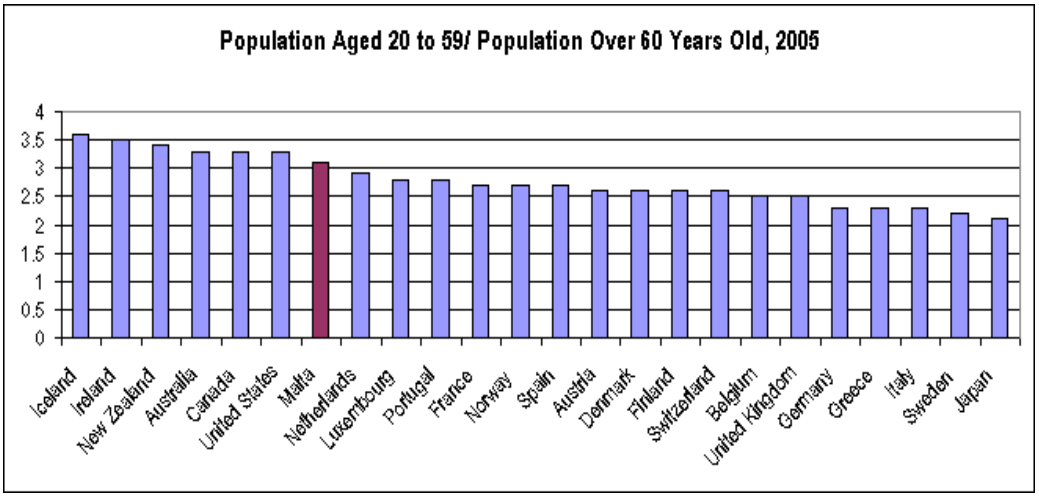

Figure 4: Demographic Comparison of Malta to other OECD countries

3.03 Figure 5 shows a comparison of the accrual rates embedded in the benefit formula. The accrual rate is the benefit rate earned per year of contribution. The accrual rates shown are those that apply when all already approved reforms are fully phased in. As clearly shown from Figure 5, the accrual rates in Malta of 2.2% per year of service are among the highest in the OECD, with only Spain's accrual rate of 2.5% being higher.

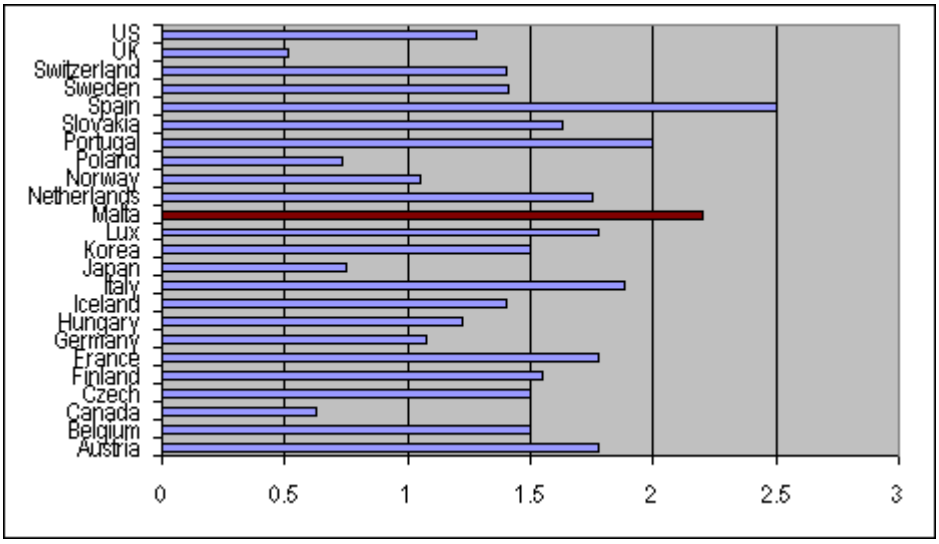

Figure 5: Accrual rates per year of contribution

3.04 The accrual rate does not take into account the effect of the ceiling on benefits. As the effective final replacement rate could well be below 66%, the accrual rate could be commensurate smaller.

Similarly, if one were to look at retirement ages for men, Malta's ranks among the lowest retirement ages of OECD countries, as shown in Figure 6.

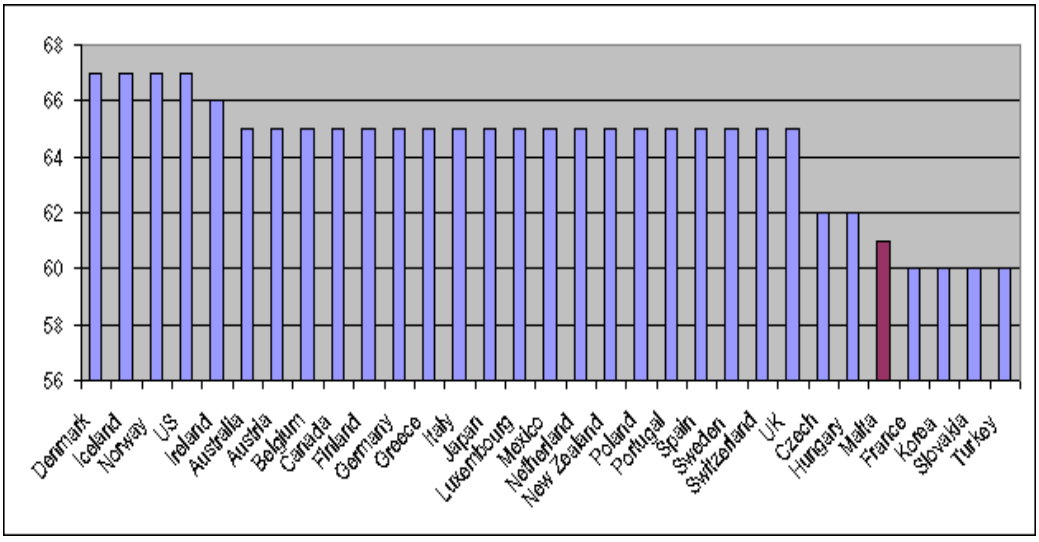

Figure 6: Retirement ages for men in OECD countries

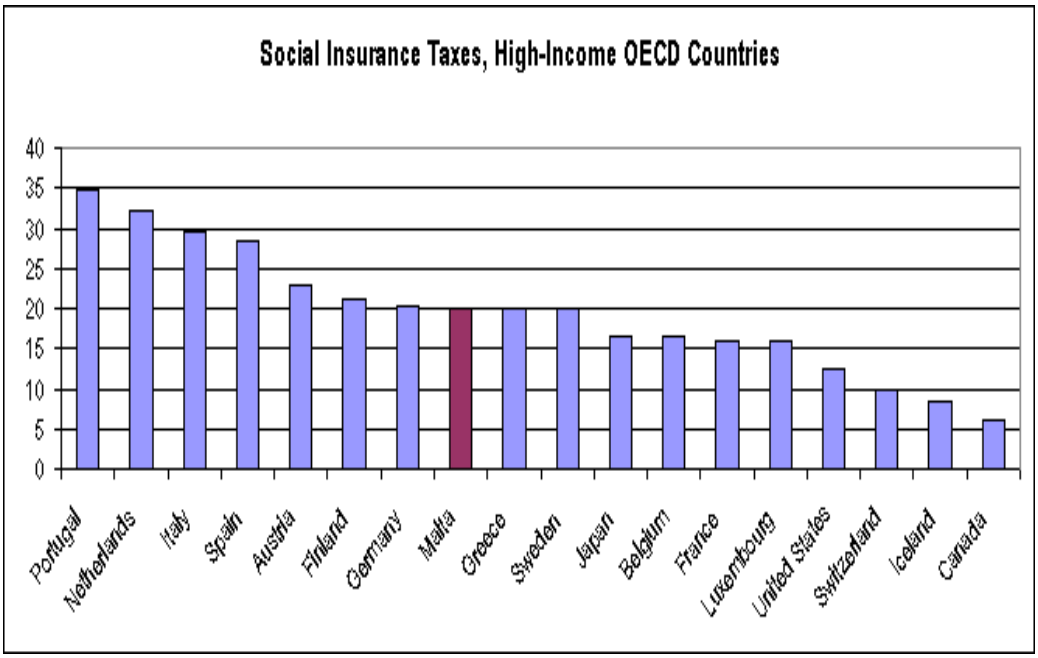

Figure 7: Contribution rates in OECD countries

3.05 While on the benefit side, Malta appears quite generous, with higher benefits and lower retirement ages than other OECD countries, its contribution rates, coming from employer and employee, are about average. While Figure 7 compares contribution rates across countries, the actual comparison should include the ceiling on insurable earnings as well as the contribution rate. Malta's contribution revenue from employee and employer relative to its wage bill currently is only 18.2%, although lower income workers are paying the full 20%. This will generally lower Malta's contribution rates relative to other countries, although a similar comparison taking into account ceilings and floors has not been done for the other countries. However, as discussed, Malta's ceiling is more stringent than that of most countries. What is notable is that due to the ceiling, Malta's effective contribution rate under the current system is expected to fall to 3% of the total wage bill by the end of the simulation period. Clearly, no OECD country with an aging population and even very few younger countries, can finance an adequate pension system with only 3% of wage as contributions.

IV. REFORM PROPOSALS

4.01 Within the PAYG context, countries facing the situation of Malta have several options. They can raise contribution rates, or otherwise generate more revenue for the pension system. They can change the eligibility conditions by raising retirement ages and contribution periods. Finally, they can change the benefit rates through a variety of parameters, the accrual rate either directly or indirectly through raising the number of contribution years required to collect the same benefit, the numbers of years used in calculating the average wage used for computing the pension benefit, the valorization of those wages, and the indexation of the pension after retirement.

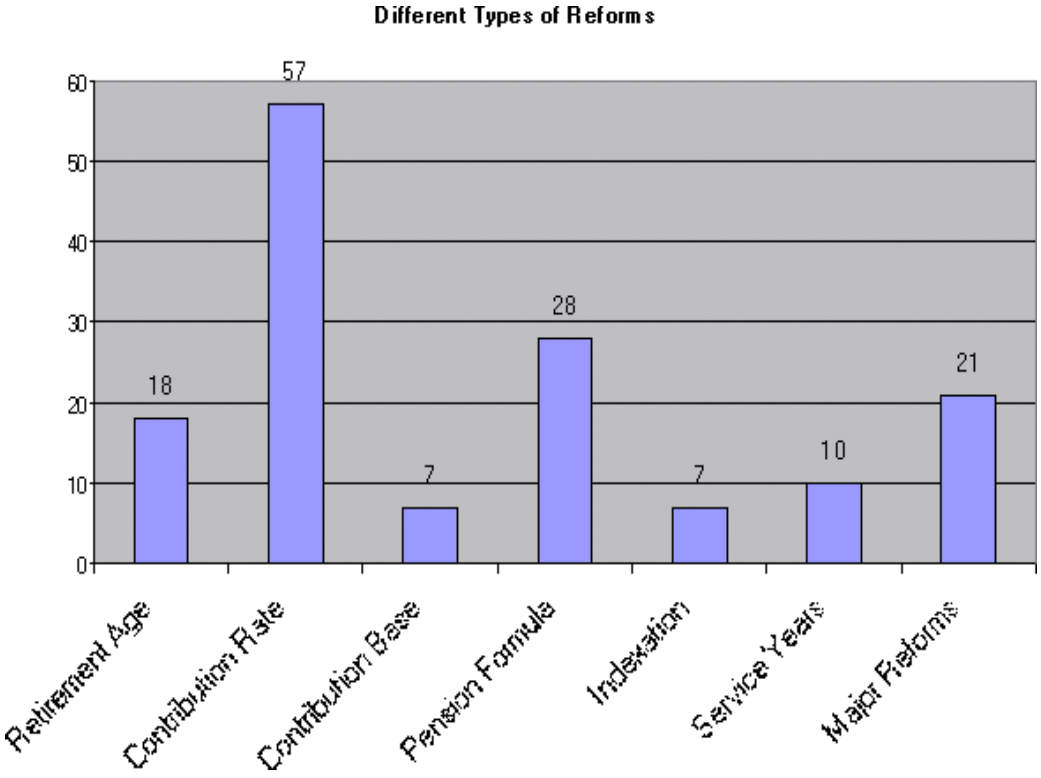

Figure 8: Reforms Undertaken Worldwide Between 1993 and 1998

Countries have been changing all of these parameters and regularly as shown in Figure 8, which takes the period 1992-97 and looks at the changes made to pension systems worldwide.

4.02 Government Guidelines

4.02 (i) The Government of Malta has recently presented guidelines relevant to pension reform for the consideration of the social partners. These guidelines contain elements of all of these parametric changes, including:

(1) a *lowering* of the contribution rate – largely for administratively separating pensions from other benefits. Since the original contribution was expected to cover a wide range of social benefits, the health contribution has now been separated out for transparency. Contribution rates for employees will now be 8% instead of 10%, while government contributes only 9% in place of 10%. The self-employed will contribute only 12% instead of 15% and the government 6% instead of 7.5%;

(2) a gradual increase in the retirement age from 61 to 65 for both genders to be fully phased in by 2015 (the retirement age for females is to be raised from the current 60 years to 61 years in the current year, prior to the proposed reform);

(3) a gradual change in the minimum years of contribution required for a 2/3 pension to 35 years from 30 years, which is effectively a reduction in the accrual rate from 2.22% to 1.9% per year of contribution, to be phased in by 2015;

(4) a gradual change in the averaging period used for calculating the value of the pension to average of the last 10 years from average of the best 3 in the last 10 years. The change in the averaging period effectively reduces the pension since the average of the last 10 years' salary is below the average of the best 3 in the last 10 years. This change will be fully phased in by 2015 also;

(5) a change in the indexation of the pension after retirement from full indexation to wage growth to revising pensions every 5 years by a percentage of the increase in average salary paid to government employees. This indexation can be approximated as a combination of indexation to inflation and nominal wage growth, with 80% indexed to inflation and 20% to nominal wage growth.

In addition to the direct guidelines, the simulations presented below include a gradual raising of the ceiling on contributions by a combination of inflation and wage growth until 2020 and then a gradual move to complete wage indexation of the ceiling by 2040 to be maintained thereafter. Maximum pensions will be raised together with the rise in the ceiling, potentially increasing benefits for current retirees as well as for future retirees. This change was implemented to prevent the pension system from becoming irrelevant in the future, as would have occurred in the absence of this change.

4.03 FIscal Sustainability

4.03 (i) We have simulated the impact of a conceptual reform proposal that reflects the guidelines. The impact of the proposed reform guidelines is shown in Figure 9. Initially the deficits fall with respect to the base case since raising the ceiling on contributions generates more revenue. But in the longer term, higher pensions have to be paid as a result of the higher contribution ceiling, which makes the deficits completely unsustainable.

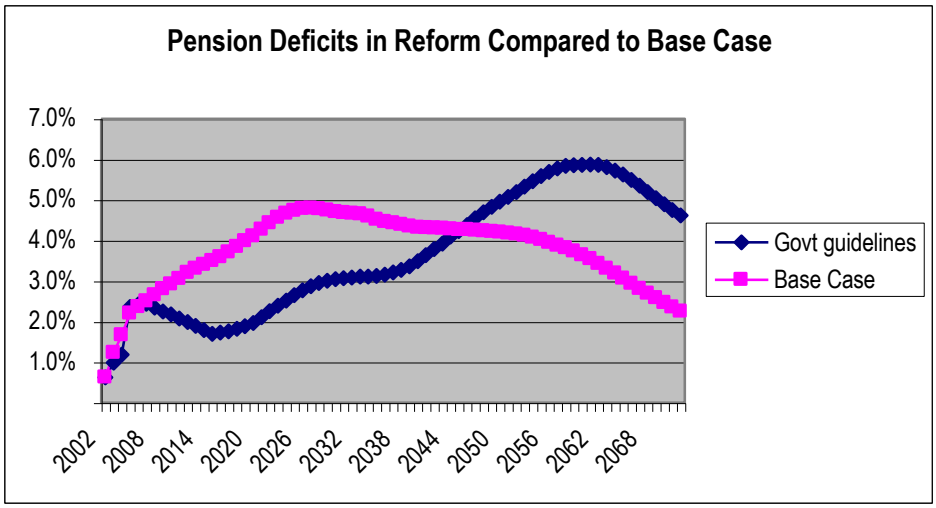

Figure 9: Pension Deficits under Government Guidelines as Compared to Base Case

4.03 (ii) At the end, only 46% of pension expenditure will be covered by contribution revenue. The government's contribution will have to be far greater than the 10% designed to cover pensions and all other social expenditures for just pensions alone, somewhere in the range of 30% contribution from the government for pensions alone. The implicit pension debt levels off at about the same level as today at the end of the period, but this improvement is largely due to the low fertility growth such that fewer workers and pensioners are expected in the future with comparison to today. On a per capita basis the implicit pension debt would be higher.

4.04 Adequacy of Pension

4.04 (i) Relative to the base case, the pension clearly maintains some value with the average pension for all beneficiaries, old age, invalids and survivors, at the end of the period at 33% of average wage in comparison with the starting value of 52% of average wage. While not totally inadequate as in the base case, the pension is a little on the low side. But the more important issue is that even at this low level, the pension is not affordable or sustainable. Contribution rates could rise a little. They average at the end of the period at 13.5% of the wage bill, but a 50% increase in contribution revenue when the system will be covering only 46% of expenditures to begin with will not be sufficient to bring the system into fiscal balance. Figure 10 shows the ratio of average pension to average wage throughout the simulation period, comparing the Government guidelines to the base case.

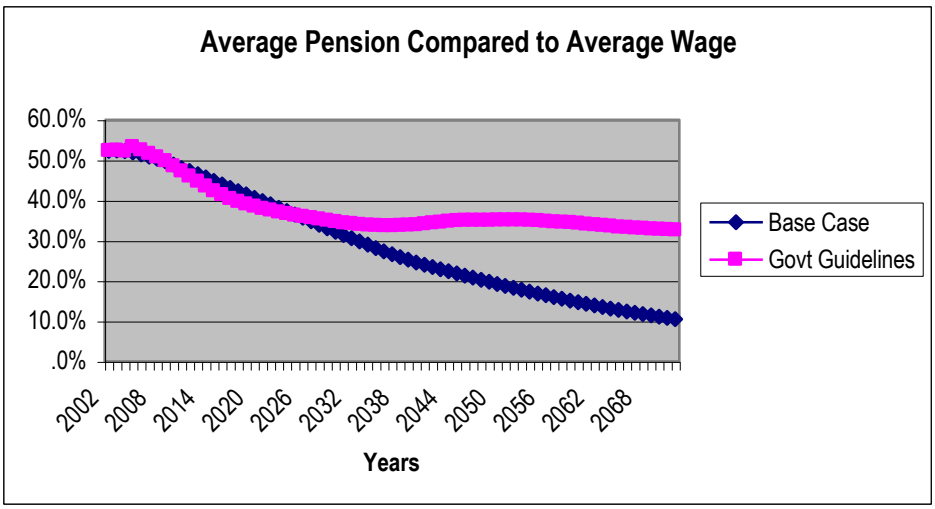

Figure 10: Average Pension Compared to Average Wage in the Government Guidelines

4.05 Reform Proposal

4.05 (i) Since the scenario based on the government guidelines was not sufficient to bring the system to fiscal sustainability, a stronger proposal has emerged from discussions with the technical team. This proposal includes the following dimensions:

(1) A further rise in the retirement age beyond age 65 in line with future improvements in life expectancy.

Currently life expectancy at retirement age for men in Malta is 18.1 years and for women 21.5 years. Internationally, the goal is to target 15 years in retirement. The 15 year goal will be achieved for men in 2015 when the retirement age reaches 65, but for women the life expectancy at retirement will still be 18.8 years. By the end of the period, the life expectancy at retirement will have reached 18.9 for men and 21.9 for women. The proposed rise in the retirement age of 68 by 2072 for both men and women will leave life expectancy at retirement at 16.4 for men and 19.2 for women.

(2) Indexation for pensions post retirement to inflation rather than the 80% inflation, 20% wage growth combination.

Most countries are moving to inflation indexation with the view that the pension should maintain its purchasing power during retirement. This provides the most security for retirees, with their pension independent of fluctuations in wage rates.

(3) The pension is based on full lifetime career earnings.

As noted earlier, basing the pension on lifetime earnings is much fairer for all workers since their contributions have been based on their lifetime earnings. However, in the Government's guidelines, the earnings were revalued by inflation. Over a lifetime of earnings, revaluation by inflation would seriously reduce the

value of the earnings. It is much fairer to revalue the earnings by average wage growth, which is what has been included.

(4) The target pension for a full career is two-thirds of net wage, rather than two-thirds of gross wage.

During their working careers, workers pay 10% of their wage for pensions and health and another 15% at least for income taxes. Thus, a two-thirds pension really provides a benefit that is equivalent to 88% of the net salary of the individual. Given that workers frequently support children and perhaps older parents, while during retirement, the retiree is usually supporting only himself and perhaps a spouse, the retiree needs appreciably less income to be equally comfortable as a worker. Respecting the concept of a two-thirds pension, but applying it to a worker's net salary, as is being done in Germany, results in some cost savings without appreciably harming the worker.

(5) Defining a full career and therefore a full pension as a 45 year contribution period.

Already, with the retirement age at 61, workers are retiring on average with 38 years of service. As discussed, it is unfair and provides the wrong incentives to workers if workers are asked to contribute for the full career without receiving any additional benefits beyond the 30 year period. The problem gets exacerbated when the retirement age rises to 65 and then to 68. Workers will be able to complete longer and longer careers. It makes little sense to base a full pension on 75% of the possible work period with no reward for additional time, given the full work histories that most workers in Malta are able to complete. Thus, the full career is defined as a 45 year period.

4.06 Fiscal Sustainability

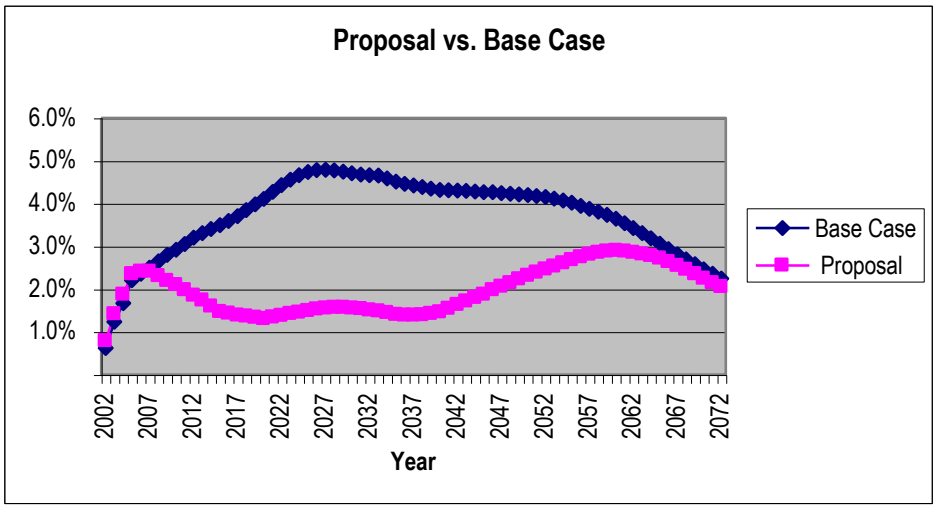

Figure 11: Deficits in Proposal Compared with Base Case

4.06 (i) The fiscal results can be seen in Figure 11. Clearly, there is a substantial improvement over the base case through the majority of the period. Toward the end, the difference between the two begins to narrow again, but keep in mind that the life expectancy at retirement age has risen again and the retirement age could be further adjusted to accommodate the increased life expectancy. Furthermore, if even a portion of the government contribution is used to support the pension system, it will be sufficient to achieve balance for the bulk of the period. By the end of the period, the implicit pension debt has been reduced to 98% of GDP, a much more manageable figure. And of course, some of the inequities within the system have been remedied through the reform as well.

4.07 Adequacy of the Pension Benefit

4.07 (i) Given the detrimental impact of the ceiling under the base case, the proposal generally provides better benefits than the base case through the majority of the period, as shown in Figure 12. In the medium term, the benefits are slightly lower, but toward the longer run, the benefits are substantially better. Towards the end of the period, the fiscal costs of the two systems are very close, but the proposal provides substantially higher benefits, making it a clearly superior proposal. Are the benefits adequate enough? At the end of the period, the benefits are more than double those in the base case, but they are still only 25% of average wage. Workers and their employers are paying about 12.4% of wage throughout the working career and ending up with pensions that are double the contribution they paid in. While it is not generous, this pension is about the limit of what can be achieved in the long run with relatively stable demographics under a PAYG system.

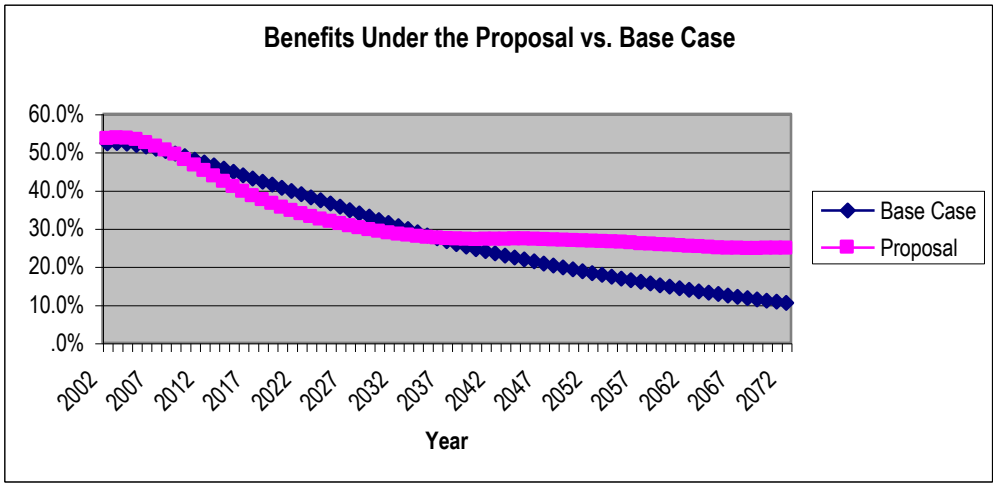

Figure 12: Comparison of benefits under proposal and Base Case

Before turning to what can be done to better protect benefits in the long run, one possibility in the medium term is to allow workers older than 45 at the time of reform to retain their old benefit structure. Is it possible to remove the slight reduction in benefits in the medium term through this mechanism and what will the exclusion cost?

4.08 Proposal with Benefits the Same for Those Over the Age of 45

4.08 (i) Under this option, the proposal will apply to all those at age 45 and under. However, there are small components of the proposal that will apply to those above the age of 45. The retirement age will be raised to 65 and will apply to those above the age of 45, with the exact age of retirement dependent on the cohort that the individual is a part of. The indexation of pensions post-retirement will be based on inflation right away and the ceiling on contributions and the maximum pension will begin to rise right away as well. What will remain the same is that for employees older than 45 the pension will continue to be calculated as two-thirds of the average of the best 3 of the last 10 years' salary valorized by inflation, while for the self-employed it will be two-thirds of the average of the last 10 years' salary valorized by inflation.

4.09 Fiscal Sustainability

4.09 (i) While the long run remains completely the same under this proposal, in the medium term, there are costs. In the short run, there are still fiscal gains, largely arising from raising the ceiling and thus generating additional revenues as well as from raising the retirement age. The costs peak at 1% of GDP around 2023 and remain at this level for about 5 years and then gradually diminish as the protected cohorts leave the beneficiary pool. If we were to protect the workers older than 45 from the retirement age change as well, the costs would be significantly higher. The results are shown in Figure 13.

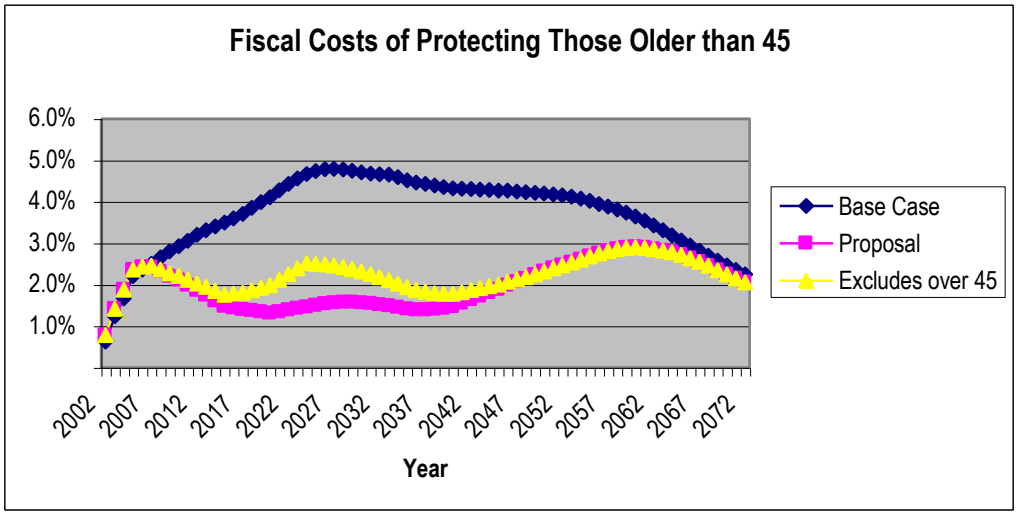

Figure 13: Fiscal Impact of Protecting Benefits of Those Older than 45

4.10 Excluding those over 45 from retirement age change as well

4.10 (i) Figure 14 shows the impact of allowing those older than 45 at the time of reform to retain both their old benefit formula and the retirement age of 61.

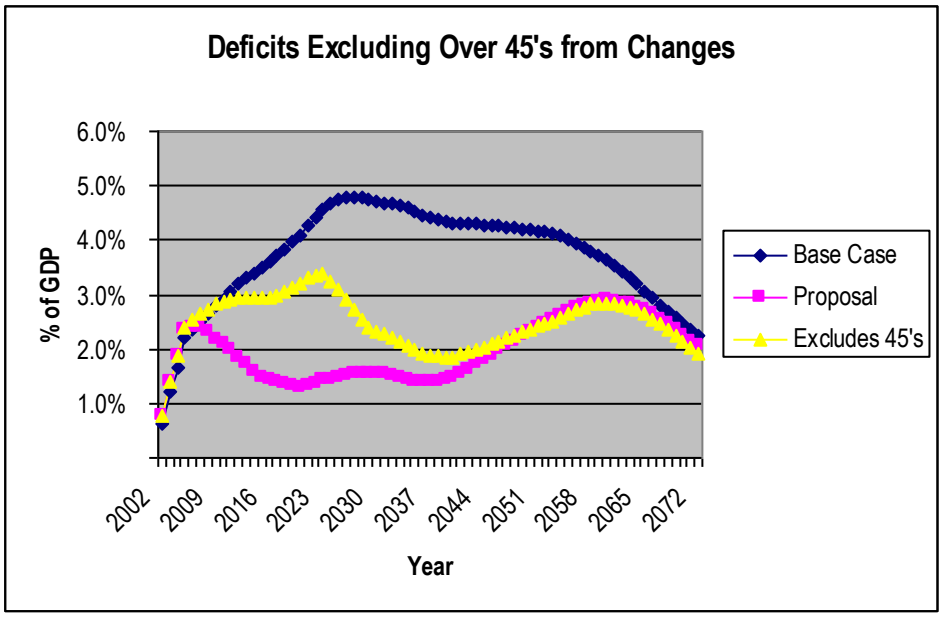

Figure 14: Fiscal Impact of Excluding those over 45 from both retirement age and benefit changes

4.11 Adding a Funded Pillar

4.11 (i) Despite the fiscal improvements in each of these options, all of them result in a significant drop in benefits. Are the benefits still considered adequate under each of these reform options and what can be done if they are not considered adequate? Pay as you go pension systems of the type currently in place in Malta can provide modest returns on contributions as the economy and demography mature since they collect contributions from current workers and their employers and use these proceeds to pay current beneficiaries. Since the amount of money available is limited by the number of workers, who are expected to shrink given the low fertility rates, there are limited resources which can be distributed without unduly raising contribution rates and affecting labor competitiveness.

4.11 (ii) The alternative is to take additional contributions and invest them with the future pensions partly coming from the old pay as you go system and partly from the invested savings. Market interest rates generally are higher than wage growth by one to two percentage points, leading to more income replacement from the invested savings than from putting the same additional contribution into the pay as you go system. In addition, individuals receive the benefits of diversification, with some of the pension depending on wage growth and some dependent on capital markets. The correlation between changes in wage growth and changes in interest

rates is very weak, resulting in a well diversified retirement, which provides the most security to the worker.

4.11 (iii) In the Maltese context, given the ceiling on contributions, the pension collections are only 13% of the wage bill in the long run. These are well below the norms in OECD countries. Therefore, without transition costs, it would be possible to add a funded contribution to the existing system, much as has been done in Australia, Sweden, Switzerland, and Denmark. The proposal therefore is to begin by adding 2% contributions to the funded pillar from both employees and employers and gradually raise this amount to 5% by 2020. Annual wage increases will be more than sufficient to cover the rise in the contribution rates so that workers will not perceive a decline in their take-home salary. Pension benefits from the pay as you go pillar could be reduced slightly since individuals will now be able to receive pensions from both the pay as you go system and the funded pillar.

4.12 Fiscal Sustainability

4.12 (i) Unlike all the other cases, the long run shows a negative deficit as seen in Figure 15 or rather a surplus, suggesting that the benefits could be made a little more generous if need be. It shows substantial improvement both in the short, medium, and long term, allowing Government to focus its resources on societal priorities which can change over time instead of locking all government resources into the pension system and ignoring all other priorities. Government and society could choose of course to put more money into the pension system if this is deemed a priority, but the option provides flexibility for future generations of Maltese. The implicit pension debt is also reduced by the end of the period to only 57% of GDP.

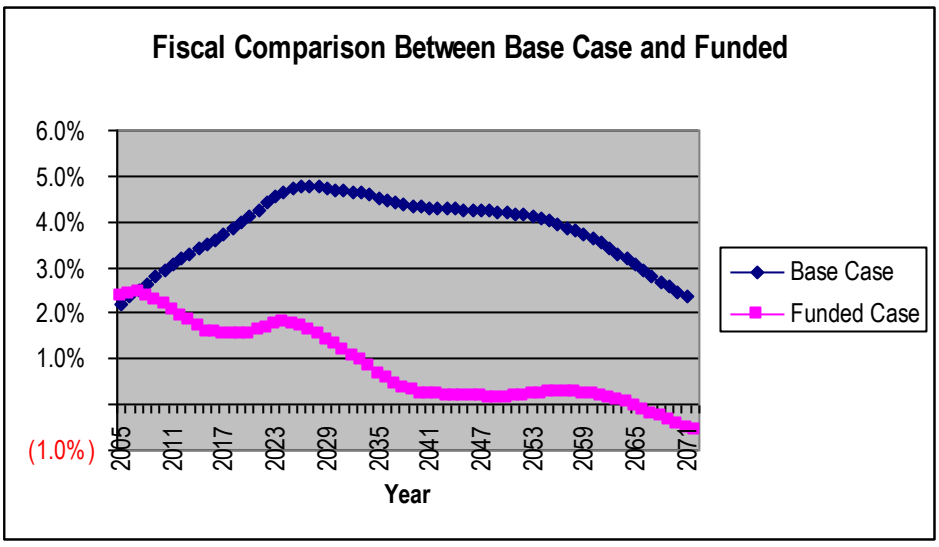

Figure 15: Fiscal Impact of Funded Option

4.13 Adequacy of Pension Benefit

4.13 (i) On adequacy of benefits, it no longer makes sense to compare benefits for all beneficiaries across the options since the funded system will apply only to the old age pensions. A better comparison may be to look at the final pension at the end of the period when everything has been fully phased in. Figure 16 compares the pension coming from a pure pay as you go system as proposed in the amended proposal with the pension coming from a mixed system. The pension is clearly higher from the mixed proposal, but what is equally important is that only one third of the total contribution is going to the funded system, but it is generating more than half the pension. If some of the existing PAYG contribution were also moved to the funded system, with a concurrent reduction in benefits from the PAYG system, the pension could be even higher. The mixed pension is being provided with a total labor tax of 19.7% of the wage bill, which is average for continental Europe, so unlikely to harm labor competitiveness. While the mixed proposal requires a contribution to the funded system, the amended proposal requires the equivalent resources, but from the Government to cover the deficit, but as can be seen, results in a lower pension for the same total expenditure.

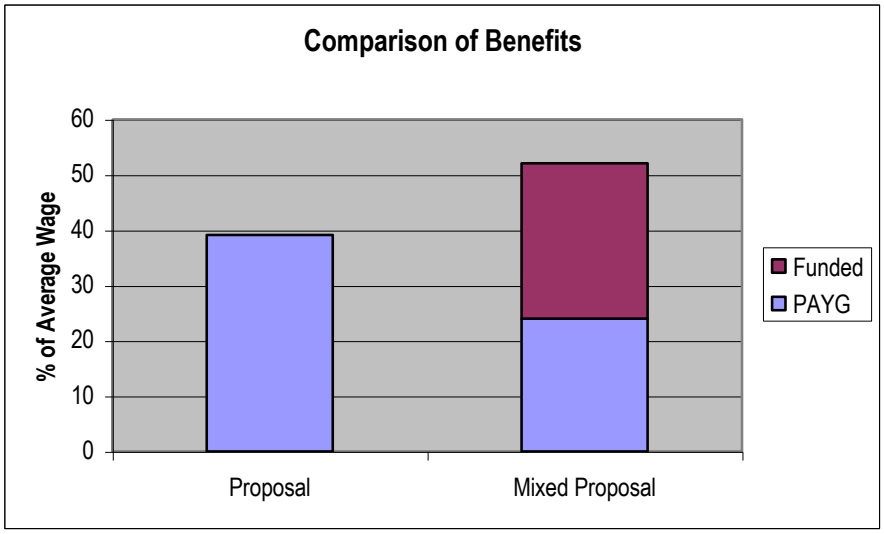

Figure 16: Comparison of Benefits in Mixed vs. Amended Proposals

Figures 15 and 16 show only one combination of infinite possibilities of a mixed system. If more or less fiscal resources are available, the proposal can be adjusted. If benefits from one system or the other are preferred, contribution rates can be adjusted to achieve the balance. The comparisons are not meant to suggest that this exact combination of parameters is ideal, but merely to illustrate the possibilities.

4.14 Institutional Structure and Organization of Funded Pension System

4.14 (i) The mixed proposal above incorporates a mandatory funded pillar. It will be financed with an additional 10 percent contribution rate (5 percent each from employees and employers). The proposal adopts a centrally managed fund structure initially offering two portfolios to plan members to choose from. One fund would be composed of fixed income securities, while the other would be composed of shares. Plan members would be able to construct their own portfolio by choosing any combination of these two funds. However, in order to control for risks the proportion of the fixed income fund in individual portfolios will increase with age of the plan member, so that as they approach retirement age the share of fixed income in their portfolio would be around 80 percent. Members would receive statements on the performance of their account and other relevant information on governance of the fund twice a year.

4.14 (ii) The objective of the fund would be to invest the funds for the sole benefit of plan members, which is to maximize the rate of return with due consideration to risk. The fund would be able to invest worldwide following annual strategies as set by the board of directors. The fund should use best international practice concerning its governance, accountability and investment policy. Examples of best practice are the structures adopted by the Canadian, New Zealand and Irish Pension Boards. Governance of the fund should be as independent from government as possible and board members should be composed of experts on fund management (which could also include foreign experts) with proven records of integrity. Accountability requires full disclosure of information concerning procedures and performance, including the use of external auditors. Fund management could be done in house or outsourced to third parties. Finally, the fund would operate through reputable custodian(s).

4.14 (iii) To the extent that the fund would invest in the local market, it is recommended that fund management be outsourced to as many managers as possible in order to ensure that none of them are large enough to affect the market's performance. Furthermore, the fund would have to delegate its shareholder rights to domestic fund managers. This is to avoid that a central agency becomes a dominant player on domestic corporate governance issues.

4.14 (iv) At retirement, plan members would have to convert their accumulated funds into annuities with joint survivorship. In order to avoid over-annuitization, this obligation should be limited until total pension (including the first pillar pension) generates a replacement rate of 67 percent of average career wage. Hence, plan members would be able to receive any excess fund from their savings account. The fund administrator would have to decide whether annuities would be provided on a centralized way through bidding in the market or whether to leave each retiree to purchase his/her annuity directly in the market. Obviously, the fund administrator should aim at minimizing intermediation costs. Furthermore, in order to manage market risks, plan members would be allowed to buy several annuity policies through time instead of buying one contract at a given point in time. Finally, plan members could be offered the option to purchase other retirement products, such as drawdown or scheduled withdrawals.

4.14 (v) The government guidelines do not include disability and survivors' benefits from the funded pillar. This decision may result in material differences between old age and disability and survivors pensions. Furthermore, the government would need to decide on whether or not to provide some sort of guarantees on the saving accounts and on the annuity payments.

4.14 (vi) Finally, the government may need to strengthen regulations and supervision of insurance companies and the securities market to ensure solvency of intermediaries, fairness in transactions, and to improve protection of small investors rights.

V CONCLUSIONS

5.01 While the pension system in Malta clearly needs reform, multiple options exist which will improve the fiscal sustainability while trying to maintain some level of pension adequacy. The Government needs to consider the fiscal issues, the social aspects, labor competitiveness issues, as well as institutional design in coming to a decision on how to reform the pension system.

5.02 The current pension system suffers both from issues of fiscal non-sustainability and low pensions in the long run. The scenario reflecting the Government guidelines remedies the low pensions by lifting the ceiling on income subject to contributions, but this puts even more pressure on the deficit. The reform proposal begins to bring the system into balance, but does reduce pensions considerably. Excluding those over the age of 45 from this reform costs a maximum of 2% of GDP. The paper also includes an example of a mixed system where individuals pay not only to the current system, but also to a funded savings plan. The mixed system raises benefit rates significantly without adversely affecting labor competitiveness.