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# LOOKING FORWARD:

## THE FUTURE OF GERMAN AND GREEK SOCIAL SECURITY SYSTEMS

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For developed countries, a problem has arisen that may not have been expected 40 or 50 years ago. This problem is the issue of an aging population, and the response to this problem is critical. Two such countries that have shown increased aging populations are Greece and Germany. Both are members of the European Union, and both are rich with history. However, in recent years one of these countries has prospered while the other is in one of the worst financial crises in modern history. Despite these differences, they are bound by the similarity that they must address their aging populations, to ensure that their citizens have the money to live out their lives in retirement.

To fully understand the scope of the issues faced in these countries, one must first look towards their Social Insurance Systems, charged with providing benefits to older citizens, disabled citizens, widows, and orphans. From there it is necessary to look at how these systems have changed over time to adapt to the economic and demographic situations faced by each country, as well as if these changes and systems are effective for their citizens. Additionally, old age care could not be discussed without talking about the healthcare systems the Germans and Greeks offer to their citizens and how costly these systems are to those citizens. Lastly, it is important to look at future challenges faced by these countries when it comes to old age care, as well as to look at how equipped they are to deal with these changes. After compiling all of this information, it is clear that while the Germans have stronger social insurance and healthcare systems in place, both of these countries face significant changes

in the near future to their old-age resources.

### Germany How Its System Works

Otto von Bismarck pioneered the world's first social security system when he introduced a system to provide benefits to old age citizens, as well as disabled citizens, in the year 1889 (Social Security Administration [SSA], 2016). Since then the law has undergone numerous changes to reach its current form, which was implemented by the German government in 2002. The German Social Insurance System is a pay as you go (or PAYGO) system, in that citizens are taxed, and these taxes are used to pay out the benefits of already retired citizens. The Germans tax their citizens 9.345% of their monthly income. Companies are also taxed on 9.345% of their payroll, while the self-employed are taxed on 18.7% of their monthly income. The Germans have a tax maximum on incomes of €74,400, or €64,800 for East German citizens; this difference in tax maximums is a result of the merging of East and West German states during the 1990s, and the merging of two tax systems established for two very different economic sectors. As of the 2016 data, the retirement age was 65 years and 5 months, with this age rising to 67 years by the year 2029.

To calculate the benefit these citizens receive, the government has a formula that multiplies individual earnings points by a pension factor and a pension value. Earnings points are calculated by taking lifetime earnings divided by national average earnings, and multiplied by an entry factor, such that if your life-

time earnings were equal to the national average your earnings point would be 1.0. The pension factor for an old-age person is 1.0, and the pension value is calculated as the monthly benefit for a year of average earnings, which amounted to €29.21 in 2016. For those in Germany, deferring benefits beyond the retirement age is rewarded by increasing the entry factor by 0.005 for each month that a citizen is over the age of 65 and 5 months. Conversely, for each month before 65 and 5 months that a person takes his benefits, his entry factor is reduced by 0.003 points. Interestingly, the Germans are increasing the minimum age to 67, while also eliminating the ability to receive an early benefit from the pension system.

### Systemic Changes

Relatively speaking, major changes have tended to not occur in German social insurance reform, with several key instances as exceptions to this rule. After its creation the most drastic changes to the system took place between 1945 and 1957 as responses to World War II and its effects on the German nation as a whole. The original system created by Bismarck was a fully-funded, investment-based system, which was able to stay mostly in place until after WWII when the government had far less capital than before the war (Feldman and Siebert, 2002). The investment-based system was not one that could be sustained, and as a result of this the Germans moved for a PAYGO system to gain funds for their retirees. This system was fully implemented in West Germany in 1969, while East Germany remained under the 1949 flat-rate pension system. The Germans then changed their system to reflect more modern times in 1989; however, the system that they agreed upon did not factor in one major event that was just about to happen: reunification. As a result of this, the West German pension system was adapted in the

much poorer East Germany, and it was clear that more reforms were needed.

With the challenges brought about from a reunified country, the Germans again adapted their social insurance system in 1999. A major issue that occurred after reunification was the incredibly high unemployment rate in East Germany, which in turn meant that not many people could contribute to the newfound pension system. As an answer to the high unemployment, the German government proposed early retirements and benefits to workers for retiring early in order to get those younger unemployed citizens jobs. While this lowered the unemployment rate from where it was, it placed the burden of supporting the newly retired citizens on the pension system. The 1999 reform kept the PAYGO system in tact, while adding a demographic factor to reduce the overall pension level to correspond with the fact that people now had longer lifespans. Based on the data presented by Bert Rürup in the 2002 book by Feldman and Siebert, this would decrease the pension level from 70% to approximately 64% by the year 2030. Choosing to lower the pension level based on life expectancy allows for a smooth decrease in benefits over time as opposed to more drastic cuts that could have been made. Additionally, the reforms sought to help women, who the government found that outside of the civil sector, where many women were employed, women had very low probabilities of returning to work after having children. To help with this, they encouraged having children by giving women taking care of young children benefits for not working. Lastly, better disability reforms were added to create a stronger relationship between the labor market and the social insurance system.

The German social security system at present is a fairly stable PAYGO system that is able to provide for

its older citizens. However, the changing demographics in the country are threatening this system. As the country looks to push the retirement age backwards further, an additional problem that is presented is the increase in early retirement by those who cannot reach the retirement age. So while the Germans' system remains effective in providing for its citizens, large challenges that the government must address are looming on the horizon.

### German Healthcare

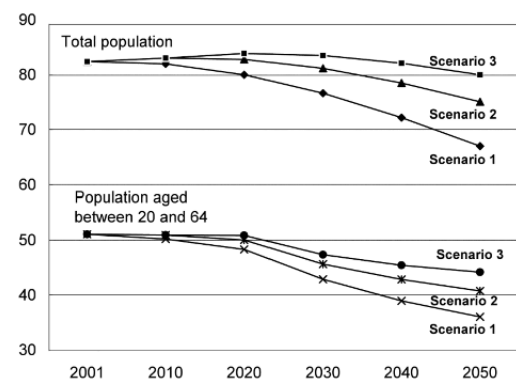
As with social security, the German healthcare system underwent major reform in the late 1980s after the reunification of Germany. The system in Germany is mandatory for all citizens and is provided through competing, non-profit health insurance groups, and through private health insurance (Blümel and Busse, 2016). As reported by Blümel and Busse, about 86% of Germans receive Statutory Health Insurance (SHI), and 11% go through Private Health Insurance groups (PHI), while military members and other public-sector employees receive their own separate healthcare. In 2016 the value of early contributions paid into the healthcare system was 14.6% of gross wages, split evenly by the employee and the employer, with maximum earnings set at €50,850. All employees earning less than €56,520 are automatically put into the SHI coverage, and non-earning spouses, as well as children, are also covered by the contributions made by the working spouse.

Since 2012 the German system has again undergone changes, namely when addressing the changing demographics in their country. In 2016 the largest piece of reform was introduced in the Second Act to Strengthen Long-Term Care. The first part of this legislation entered in 2016 and significantly expanded support for long-term care for individuals and their families. The second part of this legislation was set for

early 2017 and would broaden eligibility for long-term care services, something that had previously been reserved for people with considerably restricted daily functions. To finance this the government is increasing Long Term Care Insurance (LTCI) by 0.2 percentage points up to 2.55% of income for those who have children, and 2.80% of income for those without. This increase will account for 6 billion Euros in revenue for the German government to use to cover long-term care spending by the year 2022.

### Going Forward

When looking at the German systems of social security and healthcare, it is clear that they are not hiding from the fact that there are significant issues arising from their demographic situation. The country's new legislature focusing on expanding long-term care is a big first step in recognizing the fact that their demographic situation needs a response. As depicted by the following graph, the population in Germany is drastically changing, and as such they are approaching a point where there will be one working person supporting each retiree, something that in the 1970s was a ratio of three workers for each retiree (Siebert, 2005). Overall, the German government recognizes their issue but needs to take steps to insure that their currently effective system continues to act as such.



## Greece

### How Its System Works

Following in the footsteps of the Germans, the Greeks instituted their first social insurance system in the year 1934 (Social Security Administration [SSA], 2016). The current Greek system has undergone numerous changes since the 1950s up to the current version that was last touched in 2016. The Greek system has many components to it, and as such is a fairly complicated system to follow. The Greeks tax their citizens 6.67% of their monthly earnings, or 8.87% for what they deem unhealthy or strenuous work. The employer, on the other hand, contributes 13.33%, or 14.73%, of monthly earnings by employees. Self-employed workers, however, must contribute 20% of their monthly earnings to the social security tax. Additionally, the maximum earnings used to calculate a contribution is €5,543.55 per month for employees in Greece. As of 2016 the retirement age in Greece was 67 for men, and 62 for women; to qualify for receiving benefits one must have been a resident of Greece for at least 15 years, while contributing to the system for at least 20.

To calculate the benefits received by Greek citizens, the government has several calculations that they take in to account. First and foremost, a national pension of €384 will be given per month if at least 20 years of contributions have been made. As with many systems reductions are made depending on early claiming, 0.5% per month under retirement age; but the Greek system is unique in that they take 2% off per year under the contributions, as well as 2.5% for each year of residence under 40 years. For contributory old-age pensions, those insured after 1992 have their pensions calculated based on length of coverage and pensionable earnings throughout the last five years. The absolute minimum monthly pension equates to €486.84 a month, with the maximum being €2,373.50.

The Greeks apply an earnings test to the pension, by reducing the amount of the pension that exceeds €1,007.10 by 60%, with that threshold increasing by €204.42 per child under the age of 18, or 24 if a student.

### Greek Healthcare

Like the German system, the Greek healthcare framework has changed over the years reflecting changes in society, as well as changes economically within the country. Healthcare statistics when it comes to the country of Greece are very important to point out in order to talk about changes their social insurance system needs to undergo in order to better care for retired or unemployed old-age citizens. Like with most spending since the 2008 financial crisis, Greece has spent less and less each year on healthcare, down a cumulative percentage of 32% since 2009 (OECD, 2016). As such the share of the population that has public healthcare coverage in 2015 was 85% as opposed to the 100% coverage in the year 2008. This is mainly a result of the fact that the people of Greece currently have less and less disposable income; however, those who are uninsured are covered for any prescribed medications, emergency services in hospitals, and even some non-emergency care as of 2014. This decrease in spending also highlighted larger inefficiencies in the Greek system that had previously been present but were masked by more stable economic conditions. The three main issues were the inappropriate prescribing of prescription drugs by physicians, weak primary care, and imbalances in the mix of health professionals, which mainly affects older citizens needing long-term care.

Looking at how Greek general practitioners over-prescribe, one must simply take a look at the OECD data on volume of antibiotics prescribed. The average OECD country prescribes antibiotics at a volume, defined daily dose, of 20.7, while Greece is at

32.2, this means they are prescribing antibiotics 50% of the time more than in other countries on average. Generally with regards to this statistic, the lower the number the stronger the country's primary care is; Greece's being at such a large number shows the weakness of their primary care system at present. In regard to old age care, Greece faces a problem in the structure of their healthcare system, specifically in staffing. The OECD average for ratio of nurses to physicians is 2.8 as of 2016 data—much higher than the average in Greece of 0.6. This means that while in most OECD countries there are about three nurses for every doctor, in Greece there are about two doctors for every one nurse. This creates a large issue for end of life care, when nursing is such an essential aspect of the old-age healthcare experience.

#### **Greek Economic Issues**

Greece was under a military junta from 1967-1974. When this ended it left weaknesses in their economy that would not fully be realized until the economic crisis that occurred at the end of the first decade of the 2000s (Papadopoulos and Roumpakis, 2012). In 2008 following the international crisis in the financial and banking sectors Greece was given \$28 billion to help sustain economic growth, help with loans between banks, and boost liquidity. This equated to about 12% of Greece's GDP in 2008 and was added on top of the already incredibly burdened Greek budget that was still dealing with the payments of the 2004 Olympic games. In 2008 Greece was spending more than any other EU member on their military, about 3% of their GDP, and already had a public debt that equaled 110% of their 2008 GDP. By the middle of 2011 Greece had racked up a public debt of €360 billion, of which €75 billion was in loans, with the other €285 billion in bonds. €30 billion of this debt is held in Greek pension bonds, to ensure that those eligible for pensions are

still able to receive them.

With that numerical data on the effects of the economic crisis, it is important now to understand where the economic crisis came from. From the Papadopoulos and Roumpakis article, the Greek debt crisis is broken down into several causes that ultimately get to the heart of the economic issues in Greece. Historically, Greece has a history of defaulting consistently, and has declared bankruptcy following global financial hardships in the past. Most notably they declared bankruptcy in 1932 after the Great Depression, following one of the worst financial crises in history. Because Greece relies so heavily on lending, the periods after financial crises where other nations suddenly stopped lending to them presents them with great challenges and sets them on the path to bankruptcy yet again. The Greek government has historically borrowed a lot of money from the public, racking up enormous public debt in terms of GDP (greater than 60%) starting as early as the late 1980s. On top of all of this there is a large underground economy in Greece, wherein the government is trying to impose a move to a plastic system, of debit and credit cards, to stop the corruption of business owners operating under a strictly cash system. These factors, combined with years of corruption in prior Greek governments, all came to a head in the 2008 crisis to start the Greek economy on a downward spiral that they have yet to climb out of.

#### **Comparison**

When looking at the two countries presented above, several questions come to mind. The main question is what can these countries do going forward to better help their retired and older populations receive benefits to sustain quality of life? In actuality after researching the two countries, it becomes clear that the differences in their systems are not as much the root cause of economic hardship in old age as overall

national economics are. There are, however, some aspects of the German social insurance program that Greece should adapt, as well as overall policy changes that would help the pensioners receive proper benefits. The shift the Germans have made towards ending early benefits would be one way in which Greece could reduce spending on social insurance, especially in a country where so many citizens either retire or are forced out of work at younger ages and need their benefits. Secondly, Greece would benefit from simplifying their system into a PAYGO system as opposed to the contribution-based pension, and the national pension on top of that. Double dipping only adds to the burden of economic hardship by requiring even more funds. The population in Greece would further benefit from higher taxes; the Germans are taxed 9.345% of monthly income, compared to 6.67% in Greece. Changes to the tax structure, while potentially unpopular with the Greek citizens, would bolster funds that are used for retirement pensions, and as such would be able to help cut into the €30 billion debt the pension system faces.

Outside of the social insurance system directly, Greece could benefit from two main political distinctions between themselves and the Germans. For one, the Germans ended military conscription in 2011, and this saved billions of dollars in defense spending. As touched upon from the Papadopoulos and Roumpakis article, Greece spends more on defense than any other country in the EU, and part of this is due to the fact that all men ages 19-45 must serve in Greece. The Greek army is massive in relation to both its size as a country and the frequency in which it enters conflicts, so reducing that spending could help aide the debt in pensions Greece has taken out in bonds.

The German citizens contribute more of their taxes into healthcare, and as such the government was able to move forward with new legislature to ensure better end of life care for the people in the country. As

such people in Germany have much better long term care, which is crucial for an aging population. Because of the better-funded healthcare system, the Germans in general show signs of better health than the Greeks. Compared to the rest of Europe, Greeks have incredibly high childhood obesity rates, 44% compared to the average of 24%, and a high percentage of people over 15 who smoke, at 38.9% compared to the average of 19.7% (OECD, 2016). If the healthcare system in Greece were more effective at systematically teaching good health practices, it would reduce costs that come with the long-term effects of obesity and smoking, and any cost reduction in Greece is beneficial.

While the German system does hold firm to being the better system overall, a key facet to the issues faced with the Greek system is the country's economic hardship in general and the immense debt the country faces. Without such debt and hardship, the system in Greece could more easily be changed to adapt to their aging society in ways to better benefit the citizens of the country. All that being said, it is clear as discussed in previous sections that the German system is also far from perfect, and there is still more work to be done there as well to ensure the aging population is properly taken care of. The struggle of aging populations in developing countries is not going to go away any time soon, and looking at what countries like Germany are doing about it can serve as a blueprint for other countries, such as Greece, going forward in dealing with their own aging issues.

#### **Conclusion**

As clearly depicted throughout this paper the questions of an aging society, and what to do about them, are serious and must be addressed. In the United States we often do not hear about these issues greatly on campaign trials that focus on taxes, immigration, and national defense. It is shown to be

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unpopular to address the fact that by 2034 the United States Social Security trust fund is slated to run out, drastically cutting SS benefits to our retired citizens. While it is politically unpopular to propose any sort of benefit cut, the United States would be wise to learn from some of the steps that the Germans have shown, in combating aging populations.

While the United States is a very different country than Germany on many levels, it should learn from the Germans in regards to the fact that the Germans are striving to make their system work. United States politicians, both liberal and conservative, have proposed plans for higher taxes for Social Security, as well as plans to cut benefits for Social Security. However, by and large the United States is ignoring a problem that is quickly approaching, and doing so are hindering the health and lifestyle of many of America's elderly.

If the United States does nothing about the impending Social Security crisis that is less than 20 years away, many individuals will get to retirement with little to no savings, and little to no retirement income. Social Security is vital to millions of Americans who were not able to privately save enough to retire. As seen in Greece, a poor and aging society ultimately becomes an unhealthy one, and in a country like the United States that values a high level of healthcare, what is happening in Greece should be seen as unacceptable. And yet, if there is no response to the Social Security problem, the situation in Greece could be something that United States healthcare professionals have to find an answer to.

While the United States is staring down the barrel, that is not to say that there is no hope. The biggest issue for the United States is lack of discussion. If the United States is going to tackle its Social Security problems, politicians must more actively make citizens aware of the issues and the possible solutions. Only when people know the full scope of the impending

problem, and how it will affect everyone, can politicians propose actual solutions to the problem. The United States has the resources, and the ability, to help fix the issues with Social Security. The question simply remains, will they?

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