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AICGS POLICY REPORT

HEALTH CARE AND
PENSION REFORM

Stephen J. Silvia
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AMERICAN INSTITUTE FOR CONTEMPORARY GERMAN STUDIES

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FOREWORD

Germany and the United States are facing similar challenges of aging populations. While the aging trend is stronger and more dramatic in Germany, both societies will have to deal with massive challenges over the coming decades to both pension and healthcare policies. While the policy problems are similar, the two societies have developed different approaches to the provision of pensions and healthcare, with each approach reflecting disparate choices about the burden to be borne by employees, employers, and government. Both approaches are now being questioned, however, as populations age, government coffers shrink, and both countries seek to remain competitive in a global economy.

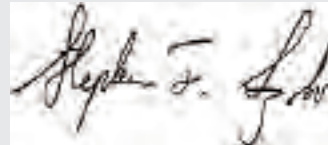
The American Institute for Contemporary German Studies, with the generous support of the *Daimler-Chrysler Fonds im Stifterverband für die Deutsche Wissenschaft*, commissioned two papers to take comparative looks at these key policy areas. The goal was to describe the approaches taken in both societies to common social problems and provide an analysis of the factors which shape the different societal responses. While both societies will be shaped by their own political cultures in dealing with these sets of issues, there is much that both can learn from the other, as well. This set of studies examines the pension and healthcare crisis in the United States and Germany; alternative proposed solutions; and the prospects for a common agenda.

Professor Steven Silvia of the School of International Studies of the American University examines what he calls the “third rail” of both German and American politics, the reform of social security. He compares the complex set of issues facing both societies and the structure of the pension systems in both countries and concludes with an appraisal of reform efforts in both. He finds that Germany has gone further in fundamental reforms of its pension system than the United States and offer explanations for this surprising outcome as well as some lessons which each society can learn from the other.

Dr. Michael Stolpe of the Kiel Institute for the World Economy at the University of Kiel, takes on another “third rail” of politics, healthcare reform. He argues that the perception that excessive spending is the main problem is misguided and misleading. He examines the economic rationale for healthcare reforms in both countries and provides an overview and analysis of recent reform efforts. He concludes with an assessment of prospects for a common reform agenda. Despite the vary different political histories and cultures, he finds that Germany and the United States will face similar trade offs between equity and efficiency and that both can learn a great deal from the other.



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From 2000 to 2004, Michael Stolpe served as a partner and team leader in the international collaborative research program on "European Integration, Financial Systems and Corporate Performance" which was financed by the European Commission through its specific program "Improving the Human Research Potential and the Socio-economic Knowledge Base".



CHAPTER ONE
HEALTHCARE REFORM

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HEALTHCARE REFORM IN GERMANY AND THE UNITED STATES

MICHAEL STOLPE

Healthcare reform is a complex subject in any country and international comparisons are fraught with additional complications. Even otherwise similar countries often differ substantially with respect to initial conditions, policy objectives, and political dynamics in healthcare reform. Differences observed at any particular point in time can thus be interpreted as a snapshot of distinct national healthcare trajectories.

Introduction

In Germany, historically the “inventor” of universal health insurance, core elements of healthcare finance can still be traced to the initiation of mandatory pay-as-you-go sickness funds by Chancellor Otto von Bismarck in the nineteenth century, whereas the flow of funds in the United States is still largely determined by the federal tax subsidies for employer-sponsored health insurance that are really an unintended legacy of World War II.

The distributional implications of these approaches, in particular their financial burden on employees, employers, and the government, have been one of their most persistent characteristics. Both approaches are now widely questioned as populations age, new medical technologies proliferate, governments seek to limit health spending, and employers increasingly view rising contributions to their employees’ health plans as a threat to competitiveness in the global economy. Against this background, my essay intends to survey the debate and to discuss alternative solutions that have been proposed in recent years for healthcare in Germany and the United States. In addition, I will briefly examine the prospects for a common agenda in research and policy.

The recent debate has mainly focused on demand-side reforms, aimed at regulating the flow of funds and the overall financing of healthcare. However, much of this debate appears to have been ill-informed about the economic determinants of demand in the longer term and about the technological opportunities for qualitative leaps and a quantitative expansion in the supply of healthcare to meet the needs of an aging population. The public has largely taken the tremendous benefits that society has obtained from better and expanded healthcare in the past decades for granted and—often erroneously—considered any increase in spending as evidence of rising unit costs. In both Germany and the United States, growing health spending is still widely seen as a threat to economic stability.

One purpose of this essay is to question the perception of excessive spending being the main or the only problem, to be solved simply by limiting or reducing healthcare’s share in a country’s gross domestic product (GDP). Spending limits or cuts are often proposed on the basis of international comparisons, such as the most recent figures from the World Health Statistics (WHO 2007) that rank the United States and Germany first and third among all OECD countries in terms of healthcare’s 2004 share in GDP, at 15.4 and 10.6 percent, respectively. Yet the recent

economics literature, such as Murphy and Topel (2006), estimates modern healthcare's social value as being far higher than even those high levels of spending. Becker et al. (2005) attribute as much as half of all worldwide welfare gains since the 1950s to improvements in health and increases in longevity, while Nordhaus (2003) concludes that ignoring these gains amounts to underestimating economic growth in the U.S. by a factor of two. In Germany and other western European countries that have overtaken the United States on a variety of population health indicators, such as reductions in infant mortality, increases in young adults' body height, and life expectancy at birth, the health-related welfare gains since the 1950s may have been even larger.

As incomes rise, populations age, and more and more potent medical technologies are being introduced, people's willingness to pay for healthcare is likely to rise further—not only in absolute terms, but also as a percentage of per-capita income. This is creating an historically unprecedented opportunity for investment into the technology and infrastructure of healthcare. Instead of seeking ways to reduce spending across the board, policymakers should strive to improve the efficiency of providing healthcare and thereby enable the demand and supply of healthcare to expand without increasing the amount of waste. A much greater effort to reform the supply side will have to be made in both Germany and the United States.

The common quest for greater efficiency and the recognition of international interdependence, especially in the supply of new medical technology and in the diffusion of medical information, provides opportunities to develop a common agenda. Building a global medical information infrastructure requires investments in hardware as well as software, including communication standard for evidence-based medicine and an efficient filter for new medical technologies seeking eligibility for reimbursement. Naturally, the scope for a common agenda will be greater between countries whose health policies are based on a shared set of underlying values, such as in Europe's consensus on equal access and solidarity. A case in point are the recent moves by several public health systems in Europe towards fourth-hurdle systems in which admissible reimbursement rates are

based on the results of cost-effectiveness analyses.

On the other hand, even when the underlying values differ, there may still be scope for a common policy agenda on a subset of issues or a common agenda for further research into a broad range of issues that all countries need to address. Distinct values indeed underlie the large differences in healthcare organization that we observe when comparing any European country with the United States. The scope for mutual learning across the Atlantic may, therefore, appear to be limited. Yet times are changing: the U.S. approach to health provision—although it was never based on a philosophy of equity—is now increasingly deemed unsatisfactory precisely for its lack of equity and its implied social exclusion of parts of the U.S. population.

The latest German reform package, the Law for the Strengthening of Competition in Legal Health Insurance ("Gesetz zur Stärkung des Wettbewerbs in der gesetzlichen Krankenversicherung" (GKV-WSG), came into effect on 1 April 2007, and epitomizes the tension between the legacy of German health policy and the size of the historic opportunity at the beginning of the twenty-first century. The reform is of little help in meeting the challenge of that opportunity and is widely considered a messy compromise between the two coalition partners—the Christian Democrats (CDU) and the Social Democrats (SPD)—that formed Germany's Grand Coalition in November 2005 after they had developed conceptually opposed designs for health care finance as part of their election campaigns. The compromise upholds many of the basic principles of the German legacy in health policy and leaves the door open for either side to impose something more in line with its original reform plan should the outcome of the next general election in 2009 provide an opportunity to do so. At the same time, the reform introduces only a few timid elements to improve efficiency in the provision of care on the health system's supply side. Insufficient attention to problems on the supply side has also characterised recent efforts at reforming health care finance in the United States.

Rationale and Objectives of Healthcare Reforms

Any valid rationale for government intervention in the economy is ultimately derived from deficits in efficiency or equity. In the conundrum of health policy, a case for reform can often be made on both counts at the same time. Unlike in standard textbook economics, efficiency considerations are often bound up inseparably with equity considerations—as it is evidently the case in the distributional implications of consumer co-payments that are primarily intended to improve efficiency by limiting excess demand from the moral hazard of the insured's. Moreover, specific healthcare reforms must not only be in line with policy objectives, which may vary across countries, but they must also be appropriate for a country's specific situation. This section begins by sketching the different starting conditions for the current round of healthcare reforms in Germany and the U.S., then discusses economic rationales based on equity and efficiency considerations, and finally explains short-term objectives motivating current reform efforts.

The German health system has its roots in legislation initiated by Chancellor Bismarck in 1883 that made enrollment in pay-as-you-go sickness funds mandatory for certain groups of workers nationwide. This system of statutory social insurance, financed by payroll taxes, has since been greatly expanded to include more and more groups of workers and now covers approximately 90 percent of Germany's population, with private health insurance serving most of the rest. Even after two world wars, years of hyperinflation, and the country's post-war division and reunification, the financing of healthcare is still largely organized in line with Bismarck's model. Its objectives are equality of access to medical care and a progressive distribution of the financial burden.

Full service private health insurance is confined to the self-employed, to civil servants, and to the relatively small number of workers who make more than approximately €40,000 per year and may therefore opt out of the statutory system. But the flow of funds is dominated by statutory social insurance. Three quarters of the population are enrolled as mandatory members within the statutory system, including dependents; a further 15 percent are enrolled as voluntary members; and 9 percent have chosen private health insurance. Premiums for private health

insurance are based on the age, sex, and individual health risks of an applicant, who must usually answer a long health-related questionnaire and often also go through a medical examination. But after the contract has been signed, an insurer cannot unilaterally change its terms in response to changing health risks of the individual; the insurance promise is for the rest of life and includes premium insurance, except for general rises in medical care prices.

In the social insurance sector, by contrast, contribution rates are independent of risk and only based on the insured's gross wage income; the individual level of premiums will change whenever a person's gross wage changes. The German government's administrative and regulatory strategy of cost containment that was successful in the late 1970s and throughout the 1980s ceased to be effective in limiting the health system's share of payroll taxes in gross wages after German unification in 1990. Between sickness funds, rates vary by several percentage points and currently average close to 15 percent, half of which is deducted at source in the form of a payroll tax and half of which is paid by the insured to the sickness fund of his or her choice.

The German system has, thus, been shaped by other forces than has healthcare in the United States, where the health insurance market operates more like other insurance markets, typically dominated by the underwriting cycle. Political will for healthcare reform follows this cycle and is readily mobilized after each peak of the cycle. For example, the Clinton health plan of the early 1990s followed the spike in health insurance premium growth, which rose to close to 18 percent in the late 1980s. The will for reform faded when the rise of health maintenance organizations and other forms of managed care in the 1990s halted the rise of healthcare premiums—at least for a while. The rate of premium growth even dipped below the rate of general inflation and the rate of workers earnings' increases during a short period in the mid-1990s. The current strong interest in healthcare reform, a central theme in the Democratic candidates' campaigns for the 2008 U.S. presidential elections, follows the resurgence in premium growth rates since the late 1990s.

The historical roots of health insurance in the U.S. are usually identified in the response of hospitals and doctors associations to the difficult credit market in the late 1920s when they introduced consumer subscriptions to medical care insurance plans as a novel strategy to raise funds for investments into new technologies of the time. The spread of employer-sponsored health insurance began when federal tax subsidies were introduced during World War II in response to the general wage freeze that prevented firms from using higher wages to compete for scarce workers. As Enthoven and Fuchs (2006) point out, the regional community rating that the non-profit insurers Blue Cross and Blue Shield used in pricing their health insurance policies turned these into “quasi-social” insurance with substantial cross-subsidization across workers, firms, and entire industries. But these features were eroded with the large-scale entry into the market of for-profit insurers relying on actuarially fair pricing, which then evolved into “experience rating.” Employer-sponsored insurance has largely ceased to cross-subsidize across firms, and the spread of health savings accounts since the 1990s has even reduced cross-subsidization among workers within a given company. The model of social insurance is now largely confined to the Medicare and Medicaid programs, for the old and the poor, that were enacted by federal law in 1965.

Key OECD data, provided in Table 1, highlights similarities and differences between healthcare in Germany and the United States over time. A turning point appears to have been around 1980 when the share of healthcare spending in GDP of the two countries was roughly equal at 8.7 and 8.8 percent, respectively. In 2004, that share has risen to 15.3 percent in the U.S., but only to 10.6 percent in Germany. In this year, the United States spent more than two times as much in dollars per capita, namely \$6,102 versus \$3,043. This divergent development appears to be mainly a legacy of Germany’s successful cost containment in the 1980s, when the share of healthcare spending in GDP actually dropped slightly—in a sharp contrast to the rise of that share by 40.3 percent during the 1970s. While the rise of U.S. healthcare spending relative to GDP was more modest during the 1970s, at 25.7 percent, it accelerated during the 1980s and has, on average,

stayed relatively high until today. The strong rise of healthcare spending as a share of GDP in Germany during the 1990s was clearly related to the unique event of German unification, the inclusion of the East German population into West Germany’s pay-as-you-go statutory system. Every East German member of a sickness fund had an immediate right to receive the same benefits in case of illness as people in the west, but workers in the east paid much lower contributions as their incomes were lower and many were, in fact, unemployed. It remains to be seen whether the return to a stable share of healthcare spending in GDP since 2000 is mainly due to the fading of the one-time impact of German unification or due to the impact of the series of reform laws that the German government began to implement in 2000.

Healthcare in the U.S. and Germany differ in many other important ways, such as Germany’s much greater share of public money in the health system, although in absolute per capita terms, the U.S. government spends about the same. Another difference is the relative importance of social security money, which accounts for about the same share of total health spending—at around 15 percent—as private out-of-pocket spending in the U.S., whereas in Germany social security accounts for approximately 70 percent, compared with private out-of-pocket spending of only slightly more than 10 percent. Social insurance coverage has long been guaranteed for only a third of U.S. citizens (the old aged and the poor) compared with more than 90 percent of Germans. Looking at resource utilization, the number of healthcare employees in relation to population size is approximately 30 percent higher in Germany than in the United States. And while the overall share of pharmaceuticals in total healthcare spending still appears to slightly higher in Germany, at 14.1 percent against 12.3 percent in the U.S., the annual growth rate in pharmaceutical spending since 1990 has been much higher in the U.S. than in Germany.

In large part due to the two countries’ different emphasis on equity and efficiency, the economic rationale for healthcare reform is discussed very differently in Germany and the U.S. In Germany, there is a broad consensus about the need for social health insurance both on equity and efficiency grounds, yet

when it comes to more specific questions of its design, stakeholders and policymakers often see a trade-off between equity and efficiency and sometimes have different ideas of how this trade-off is best resolved. Reform proposals, even if they seem radical at first sight, are usually sold as a safeguard of the German health system's basic tenets in a changing world—a world that harbors a variety of dangers from globalization, the erosion of labour's share in GDP, population aging, and progress in medical technology.

The case for allocative efficiency of social health insurance rests on insurance market failures, such as adverse selection, risk selection, and moral hazard. All three of these arise from asymmetric information between the insurer and the insured. Adverse selection arises when consumers know more about their health status and their probability of using medical care services than the insurer. Rothschild and Stiglitz (1976) showed that a competitive market may be characterized by a separating equilibrium in which only those with higher risks are offered complete coverage at actuarially fair premiums. People with lower risks are rationed at the price that is actuarially fair for them, but this price does not rise in response to the unmet demand because the insurer uses the low price to induce the good risks to self-select into this contract. Risk selection, also known as cream-skimming, is a more general strategy to induce self-selection, for example, through underwriting rules that make the health insurance contract unattractive for high-risk individuals. Ultimately, this may conflict with solidarity and equity objectives. In Germany, private insurers are often able to attract the better risks among those that have a choice to opt out of the statutory system, thus worsening the remaining risk pool in that system.

While adverse selection and risk selection are based on hidden characteristics of the insured, moral hazard is based on hidden actions, such as a lower preventive effort by the insured compared with non-insured persons and a greater quantitative demand for medical care in case of sickness. Both types of actions must be unobservable to the insurer in order to constitute *ex ante* and *ex post* moral hazard, respectively. The latter type is often cited to justify the

introduction of co-payments intended to constrain the patient's demand for medical care. At the same time, health insurers may use differential co-payments, co-insurance, or fixed deductibles as a means for risk selection as those knowing that they have a relatively low risk of catching a disease have an incentive to purchase health insurance contracts with relatively high co-payments, but low premiums, and vice versa. In Germany, private health insurers have found it easy to attract the young and healthy by using such instruments in return for relatively low premiums because the statutory sickness funds have been barred from making more than marginal use of such instruments.

Three additional efficiency rationales for social health insurance are based, first, on the need to prevent individuals from free riding, i.e., the expectation of the non-insured poor that they will not be denied access to free hospital care in the event of any serious illness; second, on the opportunity for the government to use interpersonal price discrimination in social health insurance premiums in order to achieve optimal taxation when health and ability are correlated but ability cannot be observed and where highly-skilled people have an incentive to mimic low-income earners, by reducing their labor supply as in Cremer and Pestieau (1996); and third, on the positive income effect that free or heavily subsidized access to expensive medical technology affords, the insight that part of the demand for health insurance can be explained by the fact that they buy the right, conditional on falling ill, to utilize health technologies that they could never afford without insurance coverage.

All of these efficiency rationales on the demand side are conceptually distinct from the equity case for social health insurance. The equity case is based on the premise that people are endowed with different health risks at birth and these shall not translate into a corresponding distribution of the financial burden, which private health insurer's risk-adjusted premiums would impose. Whereas the efficiency rationales are based only on the validity of the underlying economics, the equity case is also based on a value judgement, ideally consistent with a broad social consensus.

Secondary efficiency rationales for healthcare reform are derived from the need to address inefficiencies on the supply side. One particularly important implication of the social health insurance system is that it creates significant market power on the demand side of the market for medical care—akin to a monopsony. Providers of medical care in Germany have long learned to counter this monopsony by forming their own cartels, a German tradition that began in the 1920s with the formation of regional doctors' associations, the *Kassenärztliche Vereinigungen*. Every medical practitioner that wants to serve patients enrolled in a sickness fund must first become a member of the regional *Kassenärztliche Vereinigung*. These cartel-like organizations have exclusive authority to negotiate prices for medical services with the association of sickness funds and the joint federal committee of both doctors' and sickness funds' associations and determines the reimbursement status of new technologies and services that enter the market. Lack of provider competition, in turn, has long been blamed for relatively low productivity in the provision of medical care—a point that was supported by systematic empirical evidence in a well-known McKinsey study on comparative health care productivity in Germany, the United Kingdom, and the United States (Börsch-Supan 1997). For example, hospital stays are, on average, still more frequent and longer per capita for the German population than they are in the United States.

To sum up, the major rationales for healthcare reform in Germany call for improvements in production efficiency in the provision of medical care; for improvements in allocative efficiency in the market for private health insurance as well as in the competition between private and social health insurance; and last, but not least, in improvements in equity in the distribution of the financial burden.

As in Germany, competition is widely seen as an important mechanism to ensure production efficiency in the U.S. However, there has long been considerable competition in virtually all parts of the healthcare production chain. With equity not an overriding concern, the U.S. administration's recent emphasis on correcting distortions on the demand side of the health insurance market, such as the lack of prescrip-

tion drug benefits for the elderly and the unilateral tax subsidies for employer-sponsored health insurance, may seem appropriate in terms of efficiency arguments. Much of the present U.S. administration's healthcare philosophy appears to be derived from Milton Friedman's argument that tax subsidies have been the main cause for static and dynamic inefficiencies in U.S. healthcare finance.

Traditionally, the United States has seen a mixture of government initiatives, such as Medicare and Medicaid, and organizational innovations by the private sector, such as community rating and managed care, to address efficiency problems, including adverse selection and moral hazard, in the health insurance market. U.S. managed care, which grew to market dominance in the 1990s, pioneered many of the kind of contractual incentives and controls for medical practitioners to address the problem of ex post moral hazard that German sickness funds have long been prevented from adopting.

Nonetheless, the current mode of competition among healthcare provider in the United States is far from satisfactory, in particular because it fails to set the right incentives to achieve a high quality of medical care (Porter and Teisberg 2006). Moreover, the bewildering variety of third-party payers and payment arrangements has long been suspect as a source of excessive administrative expenses. Finally, an important equity issue arises from the observation that the technology-driven per capita spending for modern medical care is outpacing low-skilled workers' growth in productivity and the rise of low-skilled wages by a significant margin. Even with continued tax subsidies, employers will find it increasingly unattractive to offer a standard health insurance contract to the low-skilled. Reinhardt et al. (2004) therefore see the United States approaching a crossroads in which the alternative to "universal health insurance" is a multi-tier health system that in effect rations access to care by income class.

As in Germany, valid rationales for U.S. healthcare reform can be made in terms of improved production efficiency on the supply side and in terms of improving efficiency and equity on the demand side. In both countries, however, short-term objectives that may

be difficult to reconcile with valid rationales often dominate the actual reform process. In the German debate over the latest round of reforms, the law was meant to tackle problems arising from an aging population, the health system's over-reliance on payroll taxes, and rising costs. A particular concern was to reduce non-wage labor costs in order to enable German firms to remain internationally competitive. Moreover, the creation of incentives for financial savings within the healthcare system was seen as vital in terms of sustainability amid demographic change.

But the major political parties were ideologically at odds over the emphasis on equity—with the CDU favoring a flat-rate premium (Kopfpauschale) and the SPD favoring a quasi-tax in proportion to a broad aggregate of an individual's personal income (Bürgerversicherung). Both schemes were advertised as efficiency-enhancing by severing the link between wages and the size of health insurance contributions, although the Bürgerversicherung would achieve this only to a degree, given that for the vast majority of workers, wage income still accounts for almost all of their personal income.

In Germany, the objectives of healthcare reform must be consistent with the health system's basic principles—solidarity, equity, and efficiency—that are enshrined in constitutional law, Germany's Grundgesetz. Different political parties may subscribe to different interpretations of these basic principles and may add more specific objectives of their own, such as vertical and horizontal equity. Vertical equity requires that the rich pay more than the poor for a given level of service whereas horizontal equity postulates that two persons with the same income must pay the same level of tax. A progressive health care financing system implements vertical equity by placing a greater burden of taxation on high-income groups, relative to low-income groups. To implement horizontal equity, people of the same income level must be required to pay the same amount for health care, as explained in Mossialos and Dixon (2002).

Advocates of a market-oriented approach to health-care finance view competition among health insurers as a powerful tool to enhance productivity and

generate “economically efficient” outcomes. To foster competition, the CDU committed itself early on to preserve the market for private health insurance as a full alternative for those above the income ceiling for compulsory enrollment in the statutory system. One particular objective was to make the already mandatory provisions for old age fully portable when an insured wants so switch to a new insurer.

U.S. health policy differs from its German counterpart and, like other areas of policymaking, it is often shaped more by battle over single issues than by excruciating debate over fundamental questions. The introduction of the prescription drug benefit for Medicare recipients is a case in point. However, in the current run-up to the 2008 presidential election, the discussion of healthcare reform appears to be mainly motivated by distributional considerations, such as including the uninsured, countering the threat of rising numbers of uninsureds, and—in the interest of sustainability—holding costs down.

Recent Reforms in Germany and the United States

Commentators have characterized the healthcare reforms of 2007 in Germany as a messy compromise between two seemingly incompatible proposals: the citizens' health insurance (Bürgerversicherung) and the flat-rate insurance (Gesundheitsprämie). However, many elements of the reform package are rather straightforward extensions of the paradigm underlying Germany's statutory system for decades. Starting on 1 April 2007, the reform will be phased in gradually over the next two years. It aims to make having health insurance mandatory for all Germans and to increase the range of insurance options from which individuals can choose throughout their lives. At the same time, the reform seeks to improve the quality of care and the efficiency of its delivery.

With compulsory insurance from 2009 on, every German has to have full health insurance coverage, eliminating the approximately 200,000 who are currently uninsured in Germany. This move will be accompanied by a number of substantial changes in the regulations of the private health insurance market. For example, those who dropped out of private health

insurance because they could no longer afford to pay the premiums will have the right to return to their old private health insurer under a new standard contract, without undergoing a medical examination to determine pre-existing conditions and the actuarially fair premium. The premium is to be determined by the insured's sex and age alone. Wealthy persons who are caught at a doctor's office or in a hospital without insurance may be fined and required to pay up to five years' worth of health insurance premiums. In the first half of 2009, not only former enrollees of private insurance plans, but also voluntary members of statutory sickness funds will have the right to join the new standard contract with a private insurer. Thereafter, the standard contract will be open only to those above 55 years of age and to any privately insured person who can no longer afford the premiums of an existing private insurance contract.

To facilitate mobility of the insureds among competing private health insurers, the reform introduces a partial portability of aging provisions. In the past, the inability of the insureds to transfer the aging provisions accumulated on their behalf from the old to the new insurer has been a major obstacle against effective competition. Private health insurers only really competed for young and healthy adults. However, the reform is very timid in this respect, making only aging provisions calculated on a de facto or fictional standard contract to be portable. For example, those currently in private health insurance can move into the standard contract of any private health insurer during the first half of 2009 and take part of their aging provisions with them. All newly private insureds from 2009 on are free to switch to any other private insurer later and shall be able to transfer a level of aging provisions corresponding to the standard contract. It appears that the private health insurance industry's successful lobbying has prevented the introduction of full portability of actuarially fair aging provisions in cases other than the standard contract.

More consumer choice is also introduced into the statutory system. From April 2007 on, all sickness funds must offer at least two different elective contracts, one of which must offer a reduced premium in exchange for a binding agreement to see a registered primary physician, who will act as a gatekeeper,

before consulting any specialist or a hospital (Hausarztmodell). In addition, sickness funds will be allowed to offer contracts with a lower monthly contribution rate in exchange for pre-agreed deductibles or for the consumer-reimbursement model, instead of the current statutory standard system of direct third-party payment to the healthcare provider. At the other end of spectrum, sickness funds will be allowed to offer supplementary insurance that may cover direct consultations with a specialist practitioner or expensive drugs not covered by the standard contract.

A number of reform elements will begin to dissolve the traditional strict separation of ambulatory and stationary care in Germany. For example, hospitals are to get involved in outpatient care for chronically sick patients, such as cancer and AIDS patients, living at home. Moreover, the elderly will have the right to rehabilitation services after an injury or disease that might otherwise prevent them from returning to their homes. On the other hand, those who fail to comply with certain recommended screening tests will later have to pay larger out-of-pocket payments when they develop the corresponding condition. Finally, a comprehensive reform of doctors' remuneration, to be completed by 2011, will introduce the principles of prospective payment systems to ambulatory care, similar to the DRG-system implemented in German hospitals since 2003. The introduction of the prospective payment systems for hospitals was accompanied by the obligation to publish regular quality audits. The 2007 round of reforms imposes additional cost savings totalling €380 million per year in the German hospital sector.

In a further command and control element, the 2007 reforms mandate that spending by sickness funds on pharmaceutical drugs be cut so that savings totaling €160 to 180 million per year are generated. Pharmacists will be obliged to sell the cheapest drug in each therapeutic class. The mandate of the new Cologne-based Institute for Quality and Efficiency in Healthcare (Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen, IQWiG) is extended so that it does not only assess the benefits of new drugs, but also their costs. The purpose of this scheme is to prevent sickness funds from incurring significantly higher costs for new drugs that may have only

marginal improvements on the benefit side. In a further element to limit and reduce sickness funds spending on prescription drugs, the reform opens new opportunities for sickness funds to negotiate volume and other rebates with the suppliers and producers of prescription drugs and medical devices.

At the core of the reform, a new central fund is to start operating in 2009, collecting and distributing the insureds' premium payments to the sickness funds of their personal choice. Contribution rates are determined by the government, at a fixed proportion to the relevant definition of personal income, other sources of personal income than mere wage income. Although different people will thus pay different contributions, each sickness fund will receive a flat payment per insured, plus a supplement that will depend on the insured's age, sex, and a variety of pre-specified morbidity parameters. This element is akin to the rudimentary risk equalization scheme that has been operating among German sickness funds for some time.

Should the expenditures of a sickness fund exceed the income received from the central fund, a supplementary premium may be charged directly to the insureds enrolled in this sickness fund. However, the supplementary premium may not exceed one percent of the insured's income, or €8 per month in the absence of means-testing. The insureds have the right to switch to another sickness fund in order to avoid paying the supplementary premium. Conceivably, the limit of 1 percent may actually put less competitive pressure on the sickness funds than today's situation does, given that premium differences between some sickness funds already exceed the one percent limit even before the introduction of supplementary premiums. For the first time, sickness funds will be allowed to go bankrupt, but details of the applicable rules have to wait for an extra law, as they have been omitted in the negotiations for the 2007 reform package.

In the meantime, the government may be forced to step in and increase contribution rates across the board in order to keep with the law's requirement that 95 percent of each sickness fund's expenditures shall be covered by the flow of money via the central fund. However, there is also the possibility that a general

rise in expenditures will be partially or fully covered by general tax increases. Indeed, an important part of the purpose of creating the central fund is to make it easier to infuse tax money into the health care system on a temporary or permanent basis.

The most notable healthcare reforms introduced at the federal level in the United States in recent years have been the health savings accounts and the Medicare prescription drug benefits. Health savings accounts are voluntary, but encouraged by tax subsidies. In essence, health savings accounts are tax-free individual accounts from which the deductibles in high-deductible insurance plans, so-called catastrophic health insurance, is paid. For a family, the deductible would be \$5,000 or higher. The practice of health savings accounts can create three main problems: first, it can leave the chronically ill in a serious financial calamity after only a few years of running down the accumulated "health" savings. Second, it can make it difficult for people without much time or experience of medical care to find high-quality care at reasonable prices. And third, the tax subsidies tend to be more attractive to high-income earners, as these can expect the greatest tax savings from paying into a health savings accounts. The introduction of health savings accounts on a voluntary basis is likely to hasten the emergence of a two-tier or multi-tiered healthcare system in which access to the best care is rationed by income class. For all of these reasons, there is little interest in such proposals in Germany, let alone a realistic prospect that they might become popular in the future.

The Medicare prescription drug benefit program, on the other hand, moves U.S. healthcare for the elderly in a direction that participants of Germany's statutory and private health insurance have long taken for granted. Out-of-pocket co-payments for prescription drugs are generally lower in Germany than they are in the United States and, are limited to 1 percent of annual income for the chronically ill.

Evaluation of Recent Reforms and Alternative Proposals

The evaluation of healthcare reform proposals can be based on a variety of analytical frameworks. One popular among German economists has long been a framework known as Regulatory Policy (Ordnungspolitik), which has some features of an institutionalist perspective on alternative policy designs in the United States. The German paradigm of Ordnungspolitik is not specific to health policy, but is much more general in scope. In fact, Ordnungspolitik had its historical origin in the discussions among liberal German economists during World War II who were working in clandestine ways to develop a coherent set of ideas for a new social and economic order that would return Germany to economic growth and stability after the defeat of the Nazi government.

The purpose of Ordnungspolitik—to find a set of stable assignments of policy instruments to policy targets—is not unrelated to the discussion of economic rationales in the second section above. However, Ordnungspolitik sometimes draws policy conclusions when adequate empirical evidence for the underlying hypotheses is still scarce or does not yet exist at all. An example of health policy advice on the basis of Ordnungspolitik is provided in Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft (2006). This consensus paper argues against the link between personal income and the size of individual contributions to the statutory system. Instead, the paper seems to favor a competitive market with individual price discrimination, but with flat-rate payments determined by each insurer; the insurers shall be obliged to contract with all consumers and should be required to offer portable risk-adjusted aging provisions so that consumers are not deterred from switching insurers as they age.

In our view, these recommendations overlook that a simple set of pre-determined principles may provide a useful policy guide in the short term, but in the longer term, sustainability requires far more flexibility, as the system must respond to changes in dynamic constraints and opportunities. These evolve with ongoing demographic and technological change. Ideally, both short and long-term policies should be derived from an intertemporal maximization of social welfare, the sum of all discounted present values of

the future value of life minus the cost of staying alive.

With their focus on health care finance, recent reforms have mainly addressed the demand side of the health system. The introduction of Kopfpauschale—the equalization of per-capita contributions by introducing a poll tax or flat-rate health premium (also advocated as Gesundheitsprämie)—in its original design would have made the German system more similar to the financing of health insurance in Switzerland and the Netherlands, where flat-rate premiums are paid by all or parts of the population, respectively. As economists, we note that such a scheme does not necessarily make the healthcare financing system more efficient in the sense that premiums would be actuarially fairer than in the case of income-related premiums. Individual health risks may decline with income and with the level of education, but the demand for healthcare tends to rise with age. A flat-rate premium would not take that into account, nor would it reflect other determinants of an individual's expected health expenditure. Worst of all, a flat-rate would fail to raise the optimal aggregate revenue to finance the adoption of new medical technology, for which more affluent groups tend to have a greater willingness to pay than lower-income groups. It would be dynamically inefficient to allow financial constraints to impede the adoption of technologies for which the rich and the poor's combined aggregate willingness to pay exceeds the costs.

The introduction of Bürgerversicherung—a new system of proportional taxation, not only based on wages, but also on other sources of personal income—would have moved the German system towards general tax financing of the kind that characterizes Beveridge systems, with a single payer funded from general tax revenue, typically structured as a national health service. Examples are Spain's recent shift from a Bismarckian system of social health insurance to a Beveridge system and the introduction of a scheme similar to Bürgerversicherung by France in the 1990s. The eventual compromise between Kopfpauschale and Bürgerversicherung is more difficult to compare with foreign experiences.

With regard to the supply side, the latest round of reforms has introduced only a few elements that

promise to improve incentives for health care providers and suppliers of medical care, including the new freedom for sickness funds to negotiate rebates with suppliers of drugs and medical devices. Virtually all informed observers agree that much is left to do. Too many restrictions on sickness funds' ability to become efficient buyers, negotiating prices differentially with individual providers and bundling medical services in novel ways, have been left in place. Changing this would destroy the corporatist cartel of ambulatory physicians and meet fierce resistance from this well-organized and powerful political lobby.

Clearly, the enlarged mandate for the Cologne-based Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (IQWiG) to look into costs as well as benefits of new drugs is likely to set an example for other issues in technology adoption and economic evaluations of technologies and services in the future. A more informed regulation of medical technology could help to better exploit economies of scale in medical technology and take advantage of emerging opportunities in the course of European integration. It is interesting to note that proposals to introduce systematic cost-effectiveness analyses as a guide to technology-related investments decisions are also on the agenda of Democratic proposals for healthcare reform that have received considerable attention even in the early stages of the election campaign for the U.S. presidency 2008. Recent reforms, such as President Bush's health savings accounts and the Medicare prescription drug benefits, fall short of a rational approach that takes advantage of the state of the art in economic evaluation and health technology assessments that should guide investment strategies in the twenty-first century. The best analytical tools and methods will be needed to ensure that private investment incentives are aligned with the interests of the patient, as described, *inter alia*, in Porter and Teisberg (2006).

Prospects for a Common Agenda

The prospects for a common agenda may look slim when the traditional German emphasis on solidarity and equity is contrasted with the U.S. emphasis on freedom of choice. At the beginning of the twenty-first century, however, the two countries face a number of

common challenges, such as demographics, rapid advances in technology, the difficulty of implementing effective information technology systems, and the potential of cost-effectiveness analyses to provide much better guidance in adoption and investment decisions about new technologies than has been available in the past. Finally, it can be expected that a Democratic victory in the 2008 U.S. presidential election would create a much stronger official emphasis on equity in healthcare finance and access to medical technology than the U.S. government has shown before. Indeed, all the leading Democratic candidates have plans to introduce some kind of universal health insurance in the U.S.

Both countries are, thus, soon likely to view the trade-off between equity and efficiency along similar lines and may come to understand that in the context of dynamic efficiency, the trade-off with equity tends to disappear. In the longer term, the healthcare system does not only have to ensure equal access to healthcare's existing resources, but also to the benefits of future medical progress. Equity in the distribution of the financial burden and dynamic efficiency in the generation, production, and distribution of new medical services are perfectly compatible.

In fact, the generation and application of new medical knowledge has aspects of public goods provision. Efficiency requires appropriate institutions at the national and supranational level. Moreover, the principle of equal access implies that even those medical services that do not have the technological characteristics of public goods must be allocated *ex ante* as if they were public goods—with medical practitioners acting as gatekeepers *ex post*, in order to ration the service to those in need.

What is really needed for the twenty-first century is a new deal for healthcare: let the industry expand and make it more efficient. It is a pity that the most recent wave of reforms in both countries has been directed mainly at the demand side. The supply side, where efficiency reserves within the health system can be mobilized, has received much less attention, or no attention at all. To be sure, it remains an unresolved issue how much competition there should be and whether it can actually help to improve healthcare

productivity. For evidence on this, many German observers look to the United States, in which some form of competition appears to permeate all aspects of health care provision.

Learning can be beneficial for both sides. For example, in the adoption and diffusion of modern information technology, the United States seem to be years behind Germany and even more behind other European countries, such as Finland, where a national health system helps to coordinate large-scale investment projects of this kind. Information technology plays a key role in facilitating and diffusing evidence-based health care, speeding up the dissemination of research findings, the adoption of new medical technology, quality improvements, and the reduction of medical errors. Successful implementation of information technology can facilitate the wider adoption and development of individualized medicine. Experts at a recent conference that the Kiel Institute hosted in collaboration with the European Science Foundation predicted that the practice of medicine will change more in the course of the next twenty years than it has in the past two hundred years. The economic rationale for healthcare reform at the beginning of the twenty-first century must primarily be expressed in terms of dynamic efficiency. Population aging implies the need for dynamic efficiency, whereas endogenous medical technology implies the need for investment. There appears to be significant underinvestment in medical research, the implementation of medical knowledge, and the adoption of new medical technology.

In the longer term, the primary concern must be to endow the health sector with sufficient funds to accommodate a rising demand for medical care amid rising per-capita incomes, population aging, and the proliferation of ever more potent (yet often costlier) medical innovations. For the U.S. case, Hall and Jones (2004) estimate that by the middle of the twenty-first century, the impact of rising per-capita income alone may raise the efficient share of health spending as a percentage of total expenditures to 33 percent because the marginal utility from healthcare tends to decline more slowly than the marginal utility from other types of consumption as per-capita income increases.

Amid this coming expansion, systems of healthcare finance must still be sustainable. It is therefore paramount to find an efficient way of dealing with the endogeneity of medical technology. In theory, health insurance that pays out by reducing the consumer price of health care to the level of marginal cost may serve as an efficient two-part pricing contract rewarding the innovator and eliminating lags in the dissemination of new medical technology to all insured individuals simultaneously (Lakdawalla and Sood 2005). But in practice, endogenous change in medical technology tends to undermine the insurability of individual health risks by introducing a source of non-diversifiable aggregate risk, as Cutler and Zeckhauser (2004, 22) have pointed out. The unprecedented growth of medical technology since World War II appears to have changed the ground rules of health insurance forever.

Employer-based health insurance will find it increasingly difficult to provide equal access to all, as actuarially fair premiums would eat up an increasing share of the wages producers pay to low-skilled workers. Moreover, the rising demand for healthcare creates a problem for employment-based health insurance, in that the productivity gains among the low-skilled are unlikely to be sufficient to cover the rising costs of risk-adjusted premiums. By the way, health savings accounts could be seen as an attempt to overcome this constraint by increasing the rationing of access by income class.

However, optimal investment incentives for new technology require that a large share of aggregate willingness-to-pay, including that of poorer people, is appropriated to compensate the providers of the new technologies. The quest for dynamic efficiency will therefore increasingly bring equity issues to the fore even in the United States. In this sense, neither Germany nor the United States can escape an increasing similarity in long-term priorities for health policy.

The trade-off between equity and efficiency may be relaxed through the advent of new technology, such as information and communication technology. Over time, the relevance of asymmetric information in healthcare may change as new technology, such as

genetic testing, alters the distribution of information in the health insurance market; this holds important implications for healthcare financing policies and may vanish altogether when the focus is on dynamic efficiency.

The opportunities and constraints in a changing global environment are determined by demographic and technological change and by the interaction between these two. For example, recent breakthroughs in medical imaging and aging-related neurological diseases create the opportunity to much better diagnose and treat chronic conditions, such as Alzheimers Disease. Market integration will improve innovation incentives and health insurers that act effectively as intermediaries between the supply and demand of medical services.

A purely static analysis would miss these insights, as the type and volume of healthcare funding has no effect on the production efficiency in the provision of medical care. But in a dynamic analysis, healthcare finance is of crucial importance for efficiency in the production of medical services. Murphy and Topel's (2003) recent research into the social value of medical research is a case in point. It finds that improved survival probabilities from one disease increase the value of improvements in survival of other diseases; that the individual value of longer life expectancy is proportional to consumption spending; and that the social value of greater medical knowledge is proportional to the size of the population that benefits from this knowledge. It follows that the social value of longer life expectancy from medical research is greater, the greater the population of a given size is concentrated in the age group that reaches the life years with the greatest fall in mortality in the near future.

To focus on the problem of managing medical technology efficiently, Lakdawalla and Sood (2005) ignore intergenerational issues and show that a competitive health insurance market can provide efficient incentives for innovation in medical technology. They make this point in the context of a two-period model of health insurance that enforces efficient rewards for inventors by mimicking a two-part pricing contract in which the insurance premium is like an ex-ante

access fee in exchange for an ex-post fixed unit price for the utilization. For health insurance to be dynamically efficient, it must allow the patent holders to extract as much of the consumer surplus from medical technology as possible. Because health insurers essentially act as intermediaries between consumers and the suppliers of technology, the mode of financing can have a significant impact on the efficiency of the entire system, an insight that could not be obtained by purely static analyses where the state of medical technology is held constant. Although Lakdawalla and Sood (2005) use a representative agent framework that abstracts from distributional issues, it is clear that a dynamically efficient health care financing scheme must take the real world's unequal distribution of income and wealth into account as determinants of individuals' willingness to pay.

How can we make competition work to enhance the adoption and diffusion of new technology? Can Germany learn from the experience in the United States, and vice versa? We believe yes. Consumer choice will be maximized when competition among the providers of medical care sets incentives for quality improvements; a successful deregulation of contractual relationships and contract negotiations between health insurers and the providers of care induces them to take consumer preferences more into account. Moreover, external quality controls are needed at every level of healthcare production and finance. In both Germany and the United States, insufficient quality controls are increasingly recognized as a problem that distorts the incentives of medical care providers in competition.

Concluding Remarks

Healthcare reform will stay on the agenda in both Germany and the United States for some time. Improvements in health are likely to be one of the main driving forces of economic growth throughout the twenty-first century. Needless to say, the right incentives for the development of new medical technology and their implications for equity in access are ultimately global issues and the convergence of two of the largest players in the global health care market must be viewed as a sign of hope.

These changes require greater efficiency in the utilization of existing healthcare resources and a better management of the adoption, diffusion, and utilization of new medical knowledge and technology. This in turn will require the prudent application of modern information technology. The accelerating globalization of healthcare markets may provide an important avenue to achieve greater economies of scale. When the potential for economies of scale is realized at the global level, healthcare productivity may rise much faster than in the past. If, as participants at a recent conference of the Kiel Institute on "New Technology and Medical Decision Making" predict, the practice of medicine is likely to change more in the next twenty years than it has in the past two hundred years, then to take advantage of these opportunities, both Germany and the United States will have to make a much greater effort in building the capacity to evaluate new medical technology *ex ante*, so that wasteful misallocations of capital can be avoided.

Increased transparency of national health systems facilitates the learning from international experience and may thus help in identifying best practice. Needless to say, this learning must recognize the international linkages and systemic interdependence, especially in the generation and diffusion of new medical knowledge and technology. Learning and recognition of international interdependence may ultimately lead to a common agenda. On the other hand, the scope for such learning is limited by countries' distinct values and objectives that underlie health policy, and these indeed go some way to explaining the diverse national traditions that we observe between the United States and Europe, as well as within Europe. For example, although the U.S. approach to health provision is increasingly deemed as unsatisfactory in terms of equity, a strong emphasis on equity in access and solidarity in finance has long been the distinguishing characteristic of European healthcare.

Table 1: Size and Growth of Healthcare in Germany and the US

| | Germany | US |
|---|---------|------|
| <i>Healthcare spending as a percentage of GDP</i> | | |
| 1970 | 6.2 | 7.0 |
| 1980 | 8.7 | 8.8 |
| 1990 | 8.5 | 11.0 |
| 2000 | 10.3 | 13.3 |
| 2004 | 10.6 | 13.3 |
| <i>Growth in healthcare spending as a percentage of GDP</i> | | |
| 1970-80 | 40.3 | 25.7 |
| 1980-90 | -2.3 | 35.2 |
| 1990-00 | 21.2 | 11.8 |
| 2000-04 | -2.9 | 15.0 |

Source: OECD (2006)

Table 2: The International Distribution of Health Expenditures US, Germany, EU

| | USA | EU | D |
|--|-------|-------|-------|
| Total health expenditure as percentage of GDP | 13.0 | 8.7 | 10.6 |
| Per capita expenditure on health at US-\$ purchasing power parity | 4,400 | 1,111 | 2,054 |
| Public health expenditure as percentage of total health expenditure | 44.3 | 75.0 | 79.1 |
| Social security expenditure as percentage of total health expenditure | 14.9 | 40.7 | 68.9 |
| Private expenditure as percentage of total health expenditure | 57.9 | 24.4 | 19.0 |
| Percentage of world's total expenditure on health at purchasing power parity | 16.0 | 17.6 | 6.4 |
| Percentage of world's total public health expenditure at purchasing power parity | 13.8 | 104 | 3.6 |
| Percentage of world population | 4.7 | 6.1 | 1.4 |

Source: WHO (2002) cited by Szepa (2004)

Table 3. US and German Healthcare Compared – the Use of Resources

| | US | Germany |
|--|------|---------|
| Health expenditure per capita (\$ PPP) | | |
| 1990 | 1,40 | 68 |
| 1995 | 1,98 | 94 |
| 2004 | 2,60 | 109 |
| Employees in Health Care per 1000 | 42.6 | 12.4 |
| Physicians per 1000 in 1990 | 2.8 | 3.4 |
| 1995 | 2.8 | 3.3 |
| 2004 | 2.4 | 3.4 |
| Government social insurance coverage as percent of population in 1990 | 8.0 | 85.0 |
| 1995 | 15.3 | 82.2 |
| First annual growth of pharmaceutical expenditure as percentage (1991/94) | 5.0 | 0.4 |
| Percentage of population with stay in hospital in 1995 | 12.2 | 20.9 |
| Average stay in hospital (days) | | |
| U.S. Veterans for similar conditions in 1990 | 18.4 | 11.1 |
| 2004 | 12.2 | 15.4 |
| Heart bypass operations per 100,000 inhabitants in 1999 | 100 | 38 |

Source: Anderson and Poslun (1999), Reinhardt et al. (2002), OECD (2006)

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CHAPTER TWO PUBLIC PENSION REFORM

02

PUBLIC PENSION REFORM IN GERMANY AND THE UNITED STATES

STEPHEN J. SILVIA

In this world nothing is certain but death and taxes.
- Benjamin Franklin

Introduction

The pressure to reform public pension systems has intensified throughout the affluent post-industrial world. Advances in medicine, declines in fertility, and increased reliance on early retirement in many countries have rendered most traditional “pay as you go” (PAYG) public pension schemes unsustainable without reform. Public pension reform is a notoriously hazardous undertaking, however. It has famously been called “the third rail” of American politics; touch it and you die. Politicians the world over have dragged their feet on pension reform—despite the widespread recognition that the sooner changes are adopted, the less painful they are—out of fear of political backlash. Nevertheless, governments in several countries have undertaken major public pension reform in recent years (e.g., Germany, Italy, and Sweden). Public officials in others have enacted either small, short-term fixes (e.g., France), or nothing of substance (e.g., Belgium, Spain, and the United States). This uneven record begs several questions: Why have some countries undertaken substantial public-pension reform while others have not? Is the pattern of reform consistent with conventional expectations and explanations?

To answer these questions, this study investigates public-pension reform in two countries: Germany and the United States. The pairing has merit for several reasons. The American and German pension systems are broadly similar, but significant differences permit learning through contrast. For example, Hall and Soskice in their discussion of “varieties of capitalism”

classify Germany as the paradigmatic “coordinated market economy” (CME) in which “firms depend more heavily on non-market relationships to coordinate their endeavors with other actors.”¹ Coordination is achieved through negotiation. The most prominent other actors are trade unions and the state. Hall and Soskice categorize the United States, in contrast, as a “liberal market economy” (LME) in which “firms coordinate their activities primarily via hierarchies and competitive market arrangements.”² Competition is the principal means of coordination. It therefore comes as some surprise that in recent years Germany has undertaken a fundamental reform of its public-pension system, including the introduction of partial privatization, whereas the United States has left its traditional PAYG pension system unchanged.

The study begins with a brief comparison of the problems involved in maintaining a retirement program over the next half century that are confronting Germany and the United States, and the structure of the public pension system in each country. It proceeds with an appraisal of reform efforts in both countries over the last twenty-five years. It concludes with a consideration of what each country can learn from the other’s experience.

Problems Confronting the American and German Public Pension Systems

The problems confronting the American and German public pension systems are broadly similar, but differ in intensity and timing. Both countries are experiencing a demographic transformation from a tradi-

tional “expansive” population pyramid, with the largest population groups found in the youngest age cohorts at the bottom. The U.S. demographic profile is retaining a pyramidal shape, but the top is broadening and flattening. Germany’s demographic profile is actually changing into to a “constricted” (or “upside down”) pyramid.

Developments in the United States fertility rate (i.e., the mean number of children born to a woman over her lifetime) over the last sixty years are well known. The fertility rate soared during the two-decade baby boom that immediately followed the Second World War, peaking at 3.7 in 1957.³ A twenty-year baby “bust” followed the baby boom. U.S. fertility rates reached a low point of 1.74 in 1976. Over the last two decades, the fertility rate in the United States has rebounded, which is exceptional in the affluent world. The current U.S. fertility rate is slightly above two children per woman, which is just below the replacement rate of 2.1.

Annual net inward migration, which jumped from 1.9 migrants per 1,000 US residents in the 1970s to 4.4 in the 1990s, has helped to moderate the impact of changes in the fertility rate. This trend is expected to continue over the coming decades.⁴ As a result, the most recent estimates of the demographic pyramid for the United States in 2050 show it narrowing somewhat, but retaining an expansive shape (see Figure 1). Moreover, the population of the United States is projected to increase from 282 million in 2000 to 420 million in 2050. The resulting demographic transformation will affect the dependency ratio, which is the ratio of individuals over 65 versus 20 to 64-year olds, raising it from 0.21 in 2000 to 0.39 in 2050. The impending increase in the dependency ratio indicates that providing for public pensions will become an expanding burden for American employees over the coming decades. It is important to note, however, that the dependency ratio for all countries that are members of the Organization for Economic Cooperation and Development (OECD) will rise far more between 2000 and 2050 (i.e., from 0.22 to 0.47). So, the adjustment burden of the United States to maintain the viability of the public pension system in the face of demographic change, although significant, is relatively small in comparison

with most other high-income countries.⁵

Unlike the United States, Germany’s fertility rate remained very low immediately after the Second World War. Fertility only began to recover five years following the war’s end. Still, the rebound never matched the level of the United States in the height of the baby boom years. The fertility rate in the former West Germany peaked at 2.5 in the mid 1960s, but then fell off sharply, dropping below 1.5 in the early 1970s and then fluctuated between 1.45 and 1.35 throughout the 1980s. The fertility rate in the former German Democratic Republic tracked closely with that of its western neighbor until the early 1970s when the East German government instituted a series of reforms to boost the rate as a way to compensate for years of emigration. The reforms were relatively successful for about a decade. The East German fertility rate came within a few hundredths of a percentage point of two in 1980, but it then it slipped back, falling to 1.5 by 1990. The fertility rate in united Germany has been the lowest in the postwar era, fluctuating between 1.25 and 1.46

Significant net migration from the 1960s to the 1990s compensated somewhat for relatively low West German fertility rates. Germany invited “guest workers” initially from Spain and Italy, and then from Turkey and the former Yugoslavia, from the early 1960s to the mid 1970s. The collapse of communism in central and eastern Europe and the disintegration of Yugoslavia unleashed a fresh wave of migration to Germany during the 1990s. Net migration was higher for Germany than the United States for all of those decades, peaking at 5.6 per 1,000 residents annually in the 1990s. Migration to Germany has fallen off considerably since, dropping to 2.4 per 1,000 residents between 2000 and 2003.⁷

The combined impact of the sharp decline in fertility and the fall off in migration will produce a severe demographic transformation in Germany over the coming decades. The transformation has already begun. Between 2000 and 2050, the population living in Germany is projected to drop from 83 million to 75 million. In 2000, the share of the German population below the age of 30 was significantly smaller than the cohorts that preceded it (see Figure 2). By

2050, the German population pyramid will have inverted into a constricted profile and Germany's dependency ratio will increase from 0.26 in 2000 to 0.54 in 2050, which exceeds considerably the rate for the OECD as a whole.

The data show that the demographic challenge confronting Germany is far more severe than that facing the United States. The precise impact of the demographic transformation on the public pension systems in both countries depends on the structure of those systems, which is the topic of the next section.

Structure of the American and German Public Pension Systems

The American and German public pension systems are similar in many respects. Both countries fund their public pension schemes principally with a payroll tax,⁸ which the government redistributes as a pay-as-you-go transfer from those currently working to retirees. Both Germany and the United States require employees and employers to pay one-half of the payroll tax each. The payroll tax is capped at roughly twice the median income. Pension levels are related to an individual's lifetime earnings record. Public pensions are the chief source of income for most elderly in both countries and the only source of retirement income for the vast majority of the least-affluent third of all retirees.⁹

The American and German public pension systems differ in several ways as well. Pensions consume a significantly smaller share of German than American output. In 2005, expenditures on pensions, excluding disabilities benefits, amounted to 8.6 percent of the German gross domestic product (i.e., \$247 billion) and 3.5 percent of US GDP (i.e., \$442 billion).¹⁰ In other words, the share of GDP allocated to pensions was almost 2.5 times larger in Germany than in the United States.

Payroll taxes comprise a much larger share of total funding for public pensions in the United States than Germany. In 2005, \$507 billion in payroll taxes in the U.S. amounted to 83.9 percent of the revenue for Old-Age and Survivors Insurance (OASI), which is

the official name for the pension portion of the program that most Americans refer to as "social security." Since the mid 1980s, OASI payroll taxes have greatly exceeded outlays. The Social Security Administration has purchased with these surplus funds a special series of non-marketable U.S. government bonds, which are held in the so-called "social security trust fund." The social security trust fund currently contains close to \$2 trillion. The bonds bear interest. In 2005, they yielded \$84 billion, which amounted to 13.9% of OASI revenue. Thus, payroll taxes either directly or indirectly (i.e., via interest accrued from payroll-tax surpluses) accounted for 97.8 percent of OASI revenue in 2005. OASI taps a third source of funding. As of 1984, a portion of social security benefits became subject to the federal income tax. OASI receives a share of this tax, but it amounted to only 2 percent of total revenue in 2005. The Social Security Board of Trustees currently estimates that OASI will run a cash-flow surplus until 2026. Thereafter, liquidation of the special bonds will become a fourth source of funds for OASI.¹¹

Germany's public-pension system, which Prince Otto von Bismarck established in 1889, has always relied on payroll taxes for revenue. Payroll taxes are the main source of revenue for the current German public pension system as well, but by no means the only one. The original German public pension scheme was investment-based and fully funded, but the demographic, financial, and physical devastation of the Second World War undercut its sustainability. In 1949, the newly formed German Democratic Republic instituted a flat-rate pay-as-you-go pension, which was in keeping with its communist ideology. The Federal Republic of Germany limped along under the old system largely by paying low benefits until 1957 when the government decided to phase in the PAYG scheme that exists today.¹²

The German reform was costly. In 1957, the federal government used general funds to provide 31.9 percent of the money spent on public pensions. This subsidy declined steadily over the next sixteen years, bottoming out at 15 percent of total public pension outlays in 1973. Since then, however, the share of costs covered by the federal subsidy has increased. The federal subsidy's share remained relatively stable,

ranging 16 and 19 percent of total public pension expenditures through 1990. It then began to rise as a result of German unification and broke through the 20 percent barrier in 1994. A decision to increase the value-added tax by 1 percent in 1998 and to allocate the money collected to the public pension program drove the share of pension costs covered by federal sources up to 25 percent. The most widely used justification for subsidizing the pension fund is that the subsidy is intended to cover the cost of “non-insured benefits” (*versicherungsfremde Leistungen*); that is, benefits granted to individuals who had paid little or nothing into the system. Over the course of the 1990s, German unification, an influx of migrants with German heritage from eastern Europe, and a decision to compensate women of retirement age for child rearing greatly expanded the number of recipients who were allowed to collect benefits that were far greater than those for which they qualified based on their actual payments into the program. As a result, by the year 2000, the federal government’s subsidization of pensions had ballooned to 31 percent of the total cost of the program. In 2001, the government introduced an “ecological tax” and dedicated the receipts to fund the pension system, expanding the size of federal transfers even further. By 2005, the federal government’s subsidy of total public-pension expenditures reached 33.7 percent (i.e., €67 billion), which was an all-time high.¹³ The public-pension subsidy is the largest single line-item in the German federal budget; in recent years it has amounted to almost one-third of the entire budget.¹⁴

Even though payroll taxes comprise a smaller share of funding for the German public pension system, German payroll taxes for pensions have consistently been higher as a share of wages than in the United States (Figure 3). In 1957, the combined employee and employer pension payroll tax was set at 14 percent in Germany, but only 4.5 percent in the United States. The pension payroll tax drifted upward in both countries over the subsequent three decades. In Germany, the largest increases came between the late 1960s and early 1970s, with combined employer-employee contribution rising from 14 to 18 percent. The German pension payroll tax did not increase again until the 1980s; it briefly exceeded 19 percent at mid decade and then drifted down slightly

to 18.7 percent in the final years of the 1980s. Since the 1970s, the German political discourse about pensions has established a 20 percent combined payroll tax for pensions as a barrier not to be breached because high payroll taxes discourage employment. This barrier was broken in 1997 and 1998, the final two years of Helmut Kohl’s chancellorship. The Kohl government pushed through the 1 percent increase in the value-added tax in 1998 to bring the payroll tax back below the 20 percent mark. Pension reform legislation passed in 2001 requires the German government to take measures to avoid exceeding the 20 percent threshold through 2020.¹⁵ The payroll tax rose more steadily in the United States than in Germany. The combined employee-employer contribution for retirement exceeded 10 percent for the first time in 1978. In 1983, the United States government enacted a series of gradual increases to the social security payroll tax that set the rate at 12.4 percent by 1990, where it has remained ever since.

Comparing actual payroll-tax rates is misleading because Germany relies far more on other types of revenue to fund its pension system, while the United States payroll tax has produced a surplus for over two decades. One way to capture the relative burden of each country’s pension scheme more closely is to calculate how high the payroll tax would have needed to be in each year to fund the program fully. The comparison is not perfect. Annual gross earnings in the United States have exceeded those in Germany and the ratio has not been constant. Nonetheless, this calculation does provide a better sense of the relative burden of providing public pensions in each country than the actual payroll tax rates. Figure 3 indicates that the earnings burden of providing for pensions in Germany was initially five times higher than it was in the United States (i.e., the equivalent of 25 percent of gross earnings versus 5 percent). By the mid 1970s, however, the gap had narrowed to slightly more than two to one. The ratio of earnings burden remained stable until the mid 1990s. German pension costs explode thereafter. By 2003, the cost of the German pension system was the equivalent of 40.4 percent of gross earnings. The earnings burden of providing pensions in Germany had expanded to just shy of four times that of the United States, the point at which it remains today.

What do Germans get for the far greater relative expenditure of resources? German retirees receive a much more generous pension. The 1957 reform was designed to allow all but the most affluent of Germans who had a full working life to maintain “a secure living standard” in their retirement years by relying solely on a public pension.¹⁶ This policy contrasts with that of the United States, where policymakers have often considered social security payments as a complement to firm-level pensions for affluent and middle-class Americans. The income replacement rates for public pensions in Germany have historically been approximately 70 percent versus roughly 50 percent in the United States.¹⁷ Germans must work longer than Americans to receive full benefits, however. The difference is forty-five versus thirty-five years.

America’s public pension system is far more redistributive than Germany’s. This may seem surprising at first glance, given the general reputations of the continental European and the U.S. political systems, and Esping-Andersen’s influential classification of welfare states, which places Germany within the “corporatist” group and the United States in the “liberal” one.¹⁸ Yet the explanation for this difference is consistent with Esping-Andersen’s categorization because it is a product of the more paternalistic German commitment to provide pensions that correspond more closely to individuals’ earnings during their working years—that is, the “life-long income principle” (*Lebenseinkommenprinzip*)—and thus can serve as the sole means of support in retirement. In 2002, individuals earning one-half of the mean income had almost identical individual net income replacement rates in Germany and the United States (61.7 percent versus 61.4 percent). A gap in the rates opens thereafter. At the mean income points for each country, the replacement rates were 71.8 percent in Germany versus 51 percent in the United States. At twice the mean income, the gap widened to 67 percent in Germany versus 39 percent in the United States.¹⁹

The U.S. system is more redistributive because it sharply curtails the replacement rates for retirees who had high incomes during their working lives. This choice reflects the preferences of the New Deal Democrats who created Social Security, a recognition

of the wide spread of company-level pensions for middle and upper-income employees when the program began, and a desire to contain costs. Specifically, the Social Security Administration (SSA) sets pensions in the United States first by indexing an individual’s earnings record using nominal developments in mean wages to create a current-value estimate of past earnings.²⁰ The SSA selects the thirty-five years with the highest earnings and calculates mean annual earnings. Individuals who have worked fewer than thirty-five years receive zeroes for each year short of thirty-five. The SSA then calculates the actual “primary insurance amount,” or payment, using three replacement brackets: 90 percent, 32 percent, and 15 percent. Two “bend points” separate the three brackets. The bend points change each year along with nominal wages. For 2007, they are set at \$8,160 and \$49,200 of average indexed yearly earnings.²¹

Both countries adjust pension levels annually, but they do it in different ways. Since 1975, the United States has indexed social security payments to the consumer price index for workers (CPI-W). Once the Social Security Administration sets a retiree’s primary insurance amount, which serves as the basis for all subsequent cost-of-living increases, it cannot be changed. Germany, in contrast, relies on nominal wage indexation to adjust pension benefits over time. An individual’s initial benefit is calculated using a point system. Specifically, individuals paying into the system who earn the mean income in a given year receive one point. The floor and ceiling for contributions and points are set at 12 percent and 163 percent of the mean amount. The pension authorities then calculate nominal wage change each year and adjust the value of a pension point accordingly. For several decades, the German approach had produced more generous increases for those already retired than in the United States because nominal wages normally increase more than inflation, but a reform in 2004 added an element to the annual calculation of the value of a pension point to take into account changes in the ratio of retirees to currently employed. The result was three years with no nominal increases in pensions in Germany (i.e., from 2004 to 2006). Only political intervention prevented a nominal cut in pensions in 2006.²²

The final significant difference between the American and German public pension systems is the breadth in the base of participants. In the United States, the self-employed not only must contribute to the system, but must also pay both the employee and employer portions of the Federal Insurance Contributions Act (FICA) tax. In contrast, most of Germany's 4.1 million self-employed are not obliged to participate in the public pension system, although the professional associations for many of the self-employed require participation in self-governing pension schemes (Versorgungswerke) as a component of membership. The U.S. federal government required newly hired federal public sector employees to participate in the social security system as of 1984. Germany's 2.2 million civil servants, in contrast, have a separate system funded out of general tax receipts that is more generous. Germany's smaller base of contributors increases the tax burden on each individual within the public pension system who is currently working.²³

In summary, the German and American public pension systems are similar in type. They are pay-as-you-go programs that depend principally on payroll taxes for funding and rely on past earnings to set benefits. They differ in specifics across several dimensions, however; in particular, the cost of the program as a share of GDP, the degree of reliance on payroll taxes, the generosity of benefits, the degree of redistribution, the scope to adjust benefits, and the breadth of the base of contributors. In many cases, the difference is what one would expect to find between a liberal and a corporatist welfare state. A few components do run counter to initial expectations (i.e., redistribution and scope to adjust benefits).

Having reviewed both the problems and the structures of the public pension systems in Germany and the United States, we now have the foundation to investigate the political response to the challenges each country faces. The next section analyzes pension reform efforts in Germany and the United States over the past twenty-five years.

Pension Reform in Germany and the United States

Pension reform in Germany and the United States is

largely a study of contrasts. The United States undertook reforms much sooner than Germany, but the German reforms have been much more comprehensive and innovative. We shall see that the reforms in each country solved the immediate dilemma, but in doing so created future problems that may prove daunting.

PENSION REFORM IN THE UNITED STATES

Franklin D. Roosevelt signed the Social Security Act into law on 14 August 1935. The U.S. federal government began collecting payroll taxes in 1937 and paid the first monthly benefits in 1940. In 1939, the program was expanded to include the non-working spouses and minor children of beneficiaries as well as millions who had already retired but had not paid into the program. In 1956, an amendment permitted women to retire early (i.e., at age 62), but receive only 70 percent of the full benefits. In 1961, early retirement under the same conditions was extended to men. Major structural reforms to the public pension system in the United States that involved retrenchment took place between the early 1970s and 1980s in response to the demographic shift, economic dislocations, and policy mistakes of the 1970s. Reform came to an end with the passage of the 1983 amendments to Social Security. The changes solved the immediate problem confronting the system; that is, the cost of providing public pensions had come close to outstripping the payroll tax receipts collected for that purpose. Still, the 1983 reform produced an unintended consequence, namely, a large surplus accruing in the social security trust fund.²⁴

Before the 1970s, there was no automatic mechanism to raise social security payments. That was intentional. Members of Congress instead passed special acts to increase social security benefits in even numbered years so that on the campaign trail they could say that they voted to increase social security. Several developments converged in the early 1970s to undercut the viability of this exercise in patronage politics. First, the social security system matured. When social security began, the share of retirees who were eligible to collect full benefits was relatively small because no one had paid into the program over the course of an entire career. By the

end of the 1960s, however, almost all retirees had paid payroll taxes throughout their entire working lives. As a result, the payment to the typical retiree had become much larger. Second, by the early 1970s, the demographic transformation to lower birth rates, which was discussed above, had begun, resulting in a deterioration of the dependency ratio. Third, the inflation rate began to accelerate in the United States, which eroded the real value of the benefits and made large increases in nominal social security benefits necessary if the real purchasing power of retirees was to be preserved. Fourth, unemployment had risen significantly, which cut into the number of employees paying social security taxes and increased the share of workers opting for early retirement.²⁵

In 1972, Congress acted to address the concerns of retirees regarding the real value of their public pensions by increasing social security payments by 20 percent in that year and 11 percent in 1974, and then indexing benefits to the inflation rate starting in 1975. The transition to indexing received bipartisan support. Democrats preferred indexing because it ensured that retirees would not fall behind inflation. Republicans initially supported the measure because it would prevent the Democrats from increasing social security benefits beyond the inflation rate, but a flaw in the index formula meant that retirees actually received increases equal to twice the inflation rate. This mistake, which came into effect in the midst of an inflationary surge, further weakened the financial viability of the American public pension system. The Carter administration pushed through a social security “rescue” package in 1977 that fixed the indexing error and instituted a series of tax increases. The intent of the 1977 legislation was to keep social security on a sound footing to 2030. The rescue package was faulty, however, owing to unexpectedly poor economic performance, adoption of overly optimistic assumptions, and reliance on primitive, fragmentary economic models. As a result, by the early 1980s, social security slid back into crisis.²⁶

In 1981, the Reagan administration proposed deep cuts in social security as a counterbalance to tax cuts and increases in defense spending. Congress repeatedly rejected the cuts, and Democrats seized the issue to rally their base. The politics surrounding the

issue made reform extremely difficult, particularly for the Republicans in charge of the White House and the Senate, but the need to act was brought home to all sides when the Social Security Board of Trustees warned in its 1981 annual report that it might have to curtail social security payments by late 1982 if nothing were done. On 24 September 1981, Ronald Reagan responded by establishing a bipartisan fifteen member National Commission on Social Security Reform tasked to develop a proposal to save the system. President Reagan, Democratic Speaker of the House of Representatives Thomas “Tip” O’Neill, and Republican Senate Majority Leader Howard Baker would select the commission members to include a broad spectrum of law makers and interest-group representatives, including three Senators, four Members of Congress, American Federation of Labor-Congress of Industrial Organizations president Lane Kirkland, and National Association of Manufacturers president Alexander B. Trowbridge. New York economic consultant Alan Greenspan was named chairperson, and the social security commission quickly became known as the Greenspan Commission. The creation of the Greenspan Commission helped both parties. It allowed the Republicans to cool down the rhetoric surrounding social security in the wake of the Reagan administration’s proposed budget cuts and it enabled the Democrats to assert that they were not being obstructionist regarding social security reform in order simply to preserve a political issue.²⁷

When the Greenspan Commission began its work in February 1982, few thought that it would accomplish much. After all, the government had grappled with social security reform in vain for a decade and midterm elections were approaching. Moreover, the Greenspan Commission suffered from a slow start and encountered internal disagreements that ultimately forced an extension of the due date for the Commission’s final report by fifteen days to 15 January 1983. Only twelve out of the fifteen commissioners agreed to the final “consensus package,” which eliminated just two-thirds of the projected social security shortfall. Congress had to work out additional measures to cover the rest. Nonetheless, the Greenspan Commission succeeded in breaking the deadlock between Democrats and Republicans

over public pension reform, and its recommendations served as the framework for the 1983 legislation. The reputation of the Greenspan Commission has grown in subsequent years because the 1983 reforms ended social security's fiscal perils for several decades and it stands as an example of bipartisan cooperation.²⁸

The 1983 reform legislation, which Ronald Reagan signed into law on 20 April, has five major components: (1) an acceleration of previously enacted increases in the combined employee-employer FICA payroll tax contributions; (2) a gradual rise between 2000 and 2022 of the age at which retirees are eligible to receive full benefits from 65 to 67; (3) the addition of newly hired federal employees to the social security system; (4) a change to make a portion of benefits subject to federal income tax for social security recipients whose taxable income exceeds \$25,000 for individuals and \$32,000 for those filing a joint return, and (5) a modest "stabilizer" provision that would come into effect if the balance of the Social Security Trust Fund were to fall below a set percentage (15 percent of annual expenditures before 1989 and 20 percent thereafter) that would base annual benefit adjustments on either the wage or price increase, depending on which was lower. (To date, the Social Security Administration has never used this provision.) It is also important to note that neither the Greenspan Commission nor the 1983 legislation included changes to the pay-as-you-go method of funding public pensions in the United States.²⁹

The 1983 Social Security reform brought the program out of its recurrent financial troubles, which was a significant achievement, but it inadvertently created a whole new problem that only gradually became apparent, namely, the creation of a substantial Social Security Trust Fund. The lesson that the authors of the Greenspan Commission's consensus package took from the failure of the 1977 Carter administration reform to solve Social Security's funding problem was that relying on optimistic assumptions about economic performance produced an inadequate reform. So, the 1983 reform tacked in the opposite direction and used what has turned out to be excessively pessimistic economic assumptions.

Consequently, the amount of payroll taxes collected to fund the OASI and Disability Insurance programs (known by the combined abbreviation OASDI) has exceeded outlays each year since 1982; close to \$2 trillion has already accumulated in the Social Security Trust Fund and intermediate cost assumptions result in projections that the Fund will peak at just under \$6 trillion in 2026. Thereafter, the Social Security Administration will steadily liquidate the government bonds from the Social Security Trust Fund to enable it to continue to pay full benefits to retirees. Current intermediate-cost projections foresee the exhaustion of the Social Security Trust Fund by 2041.³⁰

What is the impact of the accumulation and then liquidation of the Social Security Trust Fund on the United States economy that is a result of the 1983 reform legislation? The effect on the economy of the expansion of the Social Security Trust Fund through to 2026 is indeterminate because it is impossible to establish whether the additional payroll taxes collected have reduced the gap between government outlays and revenue, or whether they have made it easier for the government to increase its consumption as a share of the gross domestic product. The economic impact of the Social Security Fund during the drawdown years (i.e., 2027-2041) is somewhat clearer. If the Social Security benefit structure remains unchanged, the existence of the Social Security Trust Fund will not reduce the overall tax-burden of the program, but it will affect the means by which the money is raised. The FICA tax will not have to increase as much as it otherwise would if there were no Social Security Trust Fund. This will keep labor costs lower, limiting the disincentive to hire. The government will still need to acquire revenue, however, to cover the cost of the Social Security Administration cashing in its Trust Fund bonds. This can only be done through raising taxes, cutting spending or selling assets. It is not clear which mix of these options policy makers will choose. It is nonetheless unmistakable that the Social Security Trust Fund is not a trust fund as commonly understood, but is instead little more than a government obligation to raise additional revenue beyond the FICA tax during the drawdown years. Once the Social Security Trust Fund is exhausted, the U.S. public pension scheme, if unaltered, will revert to being a pay-as-you-go system funded solely by payroll taxes.

Current calculations place the seventy-five year actuarial deficit at 2.02 percent of taxable payroll, which amounts to \$4.6 trillion calculated at present value. The prospects of enacting reforms to close this gap are dim for the remainder of George W. Bush's administration.³¹

PENSION REFORM IN GERMANY

The first German public-pension reform after the 1957 legislation enacting the conversion to pay-as-you-go funding was in 1972. The center-left governing coalition of the Sozialdemokratische Partei Deutschlands (SPD, German Social Democratic Party) and the Freie Demokratische Partei (FDP, Free Democratic Party) headed by Chancellor Willy Brandt (SPD) increased the income replacement rate for employees who made full contributions to 70 percent of average earnings. The government adjusted payroll tax rates each year to meet this target. The 1972 reform also replaced 65 as the mandatory retirement age with a "retirement window" ranging between 63 and 65 for employees who had worked for at least thirty-five years. Employees who qualified as disabled and had worked at least thirty-five years were extended a more generous retirement window, which ranged between ages 60 and 62. Women who had worked at least fifteen years (ten of which had to be after age 40), and the long-term unemployed were also granted the same retirement window as the disabled. Initially, there were no benefit reductions for employees who opted to retire earlier than age 65. The 1972 pension reform had a powerful impact. In 1970, 63 percent of all new retirees were age 65. By 1980, only 21 percent of new retirees were 65. Seventeen percent of new retirees in 1980 were 63 and 25 percent were 60. In other words, eight years after the reform, a plurality of German employees was retiring at age 60. The German mean retirement age reached a low point of age 58.9 in 1981, which was exactly three years lower than the 1973 peak mean retirement age (see Figure 4).³²

Over the course of 1985 and 1986, the German government granted a modest supplement to the pension points of women who reared children, but eliminated the age differential between men and women regarding eligibility for survivors benefits to

the detriment of women. The latter change contributed to an increase in the mean retirement age back above 60, but cost pressures resulting from the ongoing demographic transition and German unification increased demands in the early 1990s for more comprehensive public pension reform.

The 1992 public pension reform was the first of a string of retrenchments of the German public pension system. Financial duress, which was discussed above, and German unification were the catalysts. The rhythm of the reform process in Germany resembled that of the United States in the 1970s and 1980s. Once reforms began, the German government revisited the issue repeatedly for more than a decade. The initial changes were mostly short-term patches and not all were successful. The final reform package was the product of a commission comprised of experts from inside and outside of government. The big differences in public-pension reform between Germany and the United States were in terms of content. The United States retained its pure pay-as-you-go system. Germany ultimately introduced a defined contribution component and a "sustainability" factor based on changes in the dependency ratio to its PAYG pension regime. Let us now examine the successive German public pension reforms in greater detail.

The 1992 reform retrenched in four ways. First, it established a framework for integrating eastern German retirees into the western German pension system. Second, it changed the reference for setting pension benefits each year from gross to net wages. This modification slowed the rate at which benefits would have otherwise risen because income and payroll taxes, which have increased since the reform, are no longer included. Third, the reform introduced a step-wise phase-out of retirement with full benefits before age 65 for all except the permanently disabled. This measure brought the retirement age for women and the unemployed into line with that of male employed workers and amended the 1972 retirement window. Workers could still retire early (initially starting at age 63), but their pension benefits would be reduced permanently by 3.6 percent for each year of early retirement. Fourth, the number of years of education after age 17 that could be counted in

calculating pension points was capped at seven. The 1992 reform did expand pension coverage modestly in one respect. It increased the number of pension points granted to women for child rearing. The reform also raised the maximum allowable transfer of general federal funds to support the pension system to 20 percent of pension expenditures.³³

It quickly became obvious that the 1992 reform was insufficient to achieve sustainability. The German economy began to sputter soon after the reform became law; a recession occurred in 1993 and growth remained soft for several years thereafter, triggering a wave of early retirements. Consequently, the mean retirement age in western Germany began to fall again. Developments in eastern Germany were worse still. The massive sell-off and liquidation of formerly state-owned firms, which reached its crescendo in the mid 1990s, produced a drop of almost two years in the mean retirement age between 1995 and 1996 to 57.8 years (see Figure 4). The fiscal picture was no better. The combined employee-employer payroll tax exceeded 20 percent in 1994. The center-right governing coalition of the Christlich Demokratische Union (CDU, Christian Democratic Union); the CDU's Bavarian sister party, Christlich Soziale Union (CSU, Christian Social Union) and the FDP, led by Chancellor Helmut Kohl (CDU) pushed through two additional public pension reform bills in 1996 and 1997 over the opposition of the German Social Democratic Party and the Greens. The latter bill is commonly known as the 1999 Pension Reform Act (Rentenreformgesetz, RRG '99), despite its passage in 1997, because most of its provisions were scheduled to come into force in 1999. It is worth noting that these were the first post-war pension reforms that did not have the support of both of the large catch-all parties.³⁴

These two pieces of pension legislation shortened the transition time to the higher retirement ages that had been enacted in 1992. The changes, when fully implemented by the middle of the next decade, are anticipated to increase the effective retirement age by two years to age 62.³⁵ The 1999 Pension Reform Act also made it more difficult for women and the unemployed to retire early and changed the benefit calculations for disability pensions to make them less

attractive. The 1999 Pension Reform Act did not consist solely of cutbacks. It included an increase in the value-added tax of 1 percent as of 1 April 1998 to pay for the parts of the public pension program not statutorily supported by payroll taxes and further improved the pension benefits granted for child-rearing. The most controversial aspect of the Act was to include in the calculation of pensions starting in 1999 a "demographic factor," which was a formula to adjust pension benefits based on life expectancy, that was calibrated to reduce the standard benefit gradually from 70 to 64 percent of net average earnings. This component of the law was revoked after a change in government in 1998 to a coalition comprised of the SPD and the Greens under the chancellorship of Gerhard Schröder, because of concerns that the demographic factor would reduce pensions increasingly closer to the level of basic social assistance for those with shorter working lives or who had earned lower wages. The new government also relaxed some of the stricter rules for determining disability. The about face on these two fronts reopened questions about the financial integrity of the German public pension scheme. Early retirement had become even more common. In 2000, 46 percent of the new retirees were age 60, which was 19 percentage points higher than in 1995. The dilemma facing the Schröder government was how to bring stability to the pension system without cutting the retirement income of many recipients to the level of poverty wages.³⁶

The SPD-Green government's first pension legislation, which passed in May 2001 and came into force at the start of 2002, departed substantially from previous reforms in a bid to take a new approach toward tackling the unenviable problems confronting the German public pension system. The law's official title is the Old-Age Assets Act (Altersvermögensgesetz, AVmG), but it is commonly known as the "Riester reform" because the labor minister at the time, Walter Riester, spearheaded its development and passage. The Riester reform had four components. First, it broke with the practice of placing a priority on preserving benefits at a 70 percent replacement rate. It instead established a new floor for the replacement rate of 67 percent, which would be phased in between 2003 and 2030,

and simultaneously revised the calculation of the replacement rate to the detriment of beneficiaries. A 67 percent replacement rate under the revised methodology would only amount to 63.5 percent using the old approach, which comes to a reduction of approximately ten percent. Second, the Riester reform set a formal cap on the combined employee-employer payroll tax contribution rate. The purpose of this cap was to contain the size of the “tax wedge”—that is, the difference between employees’ take-home pay and what it costs firms to employ them—because a high tax wedge is a disincentive to employment. The reform set the ceiling for the combined payroll tax to fund pensions at 20 percent of wages through 2020 and 22 percent thereafter until 2030. If either of these targets were ever to be breached, the law obligates the government to devise a solution. Third, the Riester reform made pensioners eligible for means-tested benefits and, for the first time, set a minimum pension unrelated to earnings at 115 percent of the social-assistance benefit. This change acknowledged the reality that past and planned benefit cuts coupled with shorter careers meant that significant numbers of retirees were in need of such assistance. Fourth and most innovative, the Riester reform introduced a range of voluntary state-subsidized private retirement savings options that are intended to help counterbalance the reduction of the replacement rate of public pensions discussed above.³⁷

The private options, known collectively as the “Riester pension,” are available to a large segment of the population: employees and any self-employed who make social security contributions, civil servants, military personnel, unemployment insurance recipients, and the spouses of some eligible employees. Riester pensions fall into two broad categories: individual and occupational retirement accounts. We will briefly look at each in turn. The federal government only subsidizes individual retirement accounts that offer to retirees either a lifetime annuity or a lifelong disbursement plan. In other words, alternative plans—such as accounts that pay a lump sum upon retirement—are not subsidized. This restriction reflects the reform’s objective of supplementing the scaled-back public pensions. Benefits cannot be transferred or bequeathed, but supplemental survivor’s insurance

is available for a fee. The earliest payouts may begin is at age 60, the latest at age 85. The Riester reform protects savers from capital loss. Firms offering retirement plans eligible for subsidization must guarantee that at least the saver’s contribution plus any government subsidies must be available to support the annuity. Commissions, fees, and other charges must be spread equally over a ten year period.

The government offers two types of subsidies for individual accounts: supplemental payments directly into a savings account and tax deductions. The Riester reform requires a minimum amount be saved each year to be eligible for any direct payments. As of 2005, the contribution required to earn the maximum subsidization varies between €60 and €2692 depending on family income, the number of wage earners, and the number of children. The reform also set a cap on savings eligible for the program. In 2002 the cap amounted to 1 percent of gross income, including the direct payment. It is scheduled to increase in steps until reaching 4 percent of gross income in 2008. The maximum annual direct payment as of 2008 is a flat €678, which amounts to a subsidy to savings when tax deferral is included, ranging between 92 percent and 26 percent, depending on income and family circumstances. Lower income families receive the greatest subsidies. For the more affluent, deducting individual retirement savings from taxable income is more advantageous. The reform phases in maximum deduction, starting at €525 in 2002 and topping out at €2100 in 2008.³⁸

Occupational pensions have played a far smaller role in Germany than in the United States. In 2003, for example, occupational pensions provided only 7 percent of total old-age income. Both eligibility and participation in occupational pensions in Germany had been declining for over fifteen years before the reform. One objective of the Riester reform was to promote greater use of occupational pensions, although it does not privilege them vis-à-vis individual retirement accounts. If a collective bargaining agreement governing occupational pensions exists, its contents serve as the set of options available to the employees it covers. Five types of occupational pensions currently exist: (1) internal reserves retained by a firm to fund pensions (*Direktusage*); (2) retire-

ment support fund (Unterstützungskasse), which is a distinct legal entity created by a firm with the sole purpose of managing the company pension fund; (3) direct insurance (Direktversicherung), i.e., retirement insurance premia paid directly by employers to a financial services enterprise to manage pension contributions on behalf of employees; (4) a multi-employer pension fund (Pensionskasse); and (5) a retirement mutual fund (Pensionfonds) akin to many 401(k) plans in the USA. The Riester reform added the retirement mutual fund to the previous options available. Only the latter three qualify for the Riester reform subsidies and tax preferences.³⁹

The Riester reform quickly fell short of on two fronts. The uptake of Riester pensions was at first slow. The number of individuals eligible to establish a Riester pension is difficult to calculate with precision, but the German federal ministry of labor reported that in 2004, 51.4 million were eligible as contributors to the public pension program. A sluggish start is common for these types of programs (e.g., asset creation transfers [vermögenswirksame Leistungen] in Germany and Roth IRAs in the USA). Riester pensions first became available in 2002. By the end of that year, 3.4 million accounts had been opened (see Figure 5). A year later, Riester pensions still had not crossed the 4 million mark. Growth remained slow in 2004, reaching 4.2 million by years end. The details governing Riester pensions proved too complex for many financial institutions and individuals alike. The government passed the Old-Age Incomes Act (Alterseinkünftegesetz) in 2004 to simplify the process and to require institutions to disclose risk information. The number of Riester contracts increased rapidly as a result. By the end of 2006, over 8 million Riester pensions were in place. Germans also currently maintain an additional 8 million private annuities that are not a part of the Riester program.⁴⁰

Although the uptake of Riester pensions has distinctly improved of late, the extent to which this development has expanded the pool of retirement savings should not be overstated. Börsch-Supan, Heiss and Winter (2004) have found that slightly more than half of all German employees who opened a Riester pension have simply shifted retirement savings out of a non-

subsidized investment. Only 37 percent said that they are saving more through a Riester pension and a significant portion of those additional savings come from the government subsidy. In other words, unless the expansion of the number of Riester pensions continues for several more years and the subscribers increase their overall savings rates, a substantial share of German retirees will have to make due with a lower replacement rate than did their parents.⁴¹

The Riester reform's second major shortcoming manifested within the space of a year. The Schröder government had used extremely optimistic economic assumptions when it drafted the legislation. Reality proved not nearly as kind. The German economy softened in 2002, which forced the government to increase the combined payroll tax supporting the pension system from 19.1 percent to 19.5 percent for the following year, despite the substantial revenues flowing into the public pension system as a result of the new ecological tax. The payroll tax increase prompted the Schröder government to create a new commission in November 2002 to develop more durable solutions to Germany's persistent problems funding the pension and health-care programs. Bert Rürup, head of the German Council of Economic Advisers (Sachverständigenrat), chaired the new Commission for Sustainability in Financing the German Social Insurance System. As a result, it quickly became known as the Rürup commission.⁴²

The Rürup commission worked relatively expeditiously, completing its report on public pension reform in August 2003. The report contained four major recommendations. The first was to accelerate to 1 January 2006 phasing in age 63 as the earliest retirement age for the unemployed and those working part-time. This recommendation became law in the 2004 Old-Age Pension Insurance Sustainability Act (Rentenversicherung-Nachhaltigkeitsgesetz). By mid decade, the combined impact of laws incrementally cutting back on early retirement, which began in 1992, was finally bearing fruit. For the first time in three decades, the most common retirement age was once again 65. In 2005, 42 percent of those retiring were 65. Only 22 percent were 60. Second, the Rürup commission called for adding a "stability factor" that would adjust pension benefits inversely

with changes in a standardized estimate of the dependency ratio of retirees to the employed in order to contain costs. Thus, changes in the number of retirees and cyclical fluctuations in employment would directly affect pension benefits. The 2004 reform legislation included the stability factor, but it restricted its impact. An adjustment owing to the stability factor could lead to a diminishment of the annual revaluation of pension points based on wage developments down to the previous year's value, but not to a nominal reduction. Retirees quickly felt the impact of the stability factor. In 2004, 2005, and 2006, nominal public pension rates remained unchanged. In 2005, the formula actually would have resulted in a nominal reduction in public pensions if the legislation had not forbid it. The public pension benefits finally increased in 2007, but by only 0.54 percent, which was well below the inflation rate. A third Rürup commission recommendation, which also became law, was lowering the target for the net average replacement rate in 2030 by another four percentage points to 60 percent when calculated using the unrevised method.⁴³

A fourth Rürup commission proposal was to increase the retirement age gradually from 65 to 67, but strong opposition led the Schröder government to exclude it from the Old-Age Pension Insurance Sustainability Act. After the 2005 federal election, the new "grand coalition" CDU-CSU-SPD government, headed by Chancellor Angela Merkel (CDU), returned to the issue. Labor minister Franz Müntefering (SPD) led the push to increase the retirement age as a way to cut costs and to curb the impact of the stability factor on public pension benefits. The Pension Insurance-Retirement Age Adjustment Act (Rentenversicherung - Altersgrenzenanpassungsgesetz), which enacted a stepwise increase in the retirement age to 67 between 2012 and 2030, passed both houses of the German legislature in March 2007. Individuals who at age 65 had contributed to the pension system for at least forty-five years may still retire and receive full benefits. All others will have their benefits reduced proportionately if they retire early.⁴⁴

Passage of the 2007 legislation to increase the retirement age to age 67 concluded the most recent round

of public pension reform in Germany. Is the German pension system now economically and politically sustainable? The combination of Riester pensions, the sustainability factor, and a later retirement age offer promise as a means to provide for the long-run stability of the German pension regime, but success is by no means assured. The reforms have already begun to reduce the replacement rate of German public pensions and will continue to do so for several decades. Börsch-Supan and Wilke estimate that if current employees begin to make up for that drop by saving for retirement at a rate of 4 percent and those savings yield 4 percent per year on average, retirement income will return to a level comparable to today by approximately 2030. If current employees fail to save at a 4 percent rate, if these investments fail to yield 4 percent annually, or if demographic developments deteriorate, the transition period could become considerably longer. One thing is certain. Employees currently in their forties and fifties will be victims of a "double payment problem." They will pay for their parents' public pensions while having to invest in private pensions to supplement their own retirement. Current retirees will also suffer, because the sustainability factor will hold down their pensions, but they will be unable to compensate for it because they are already out of the workforce.⁴⁵

Even if the reforms manage to achieve the sustainability of the public pension regime, two broader questions of economic policy remain. Does leaving the joint payroll tax to fund public pensions at 20 or 22 percent of gross income still discourage employment too much? Should the one percent of value-added tax receipts and the ecological tax continue to be dedicated to fund the public pension system?

Beyond the economic uncertainties, one big political question looms. Will German retirees quiescently accept two to three decades of deterioration in their retirement incomes? Three years of no increases in nominal pension benefits has produced considerable consternation, particularly among interest groups that advocate for the elderly and on the left, but the issue has thus far failed to gain serious political traction.⁴⁶ A soft economy at mid decade, a perception that most German pensioners remain well off, and the deep implication of the Social Democratic Party in

recent reforms are important explanations for the failure of three successive years of no increases in pension benefits to become politically salient. Still, if "zero rounds" become the norm and the SPD moves into the opposition, there is no guarantee that the sustainability factor will remain secure politically. Still, it would be difficult for opponents of the sustainability factor to eliminate it if they were unable to develop a viable alternative. So far, there has been no serious attempt to do so.

Conclusion

The great demographic transition to smaller families, which began in the 1960s, has combined with longer life expectancies to put pressure on public pension systems that rely on the pay-as-you-go method of financing. Policymakers in both Germany and the United States are compelled to address this problem, but the crisis is worse in Germany because the drop in the fertility rate has been sharper, the capacity to rely on immigration to counterbalance demographic change is more limited, the public pension system is considerably more generous, and Germans retirees are far more reliant on public pensions.

The dynamic of public pension reform is strikingly similar in Germany during the last one and a half decades and in the United States during the 1970s and 1980s. Imminent insolvency was the catalyst in both cases. Neither country was able to generate sufficient political resolve to undertake the precarious task of reforming public pensions well before the onset of crisis, despite repeated admonitions from experts that delay would only serve to compound the problem. George W. Bush's recent failure to make headway on public pension reform can be attributed, at least in part, to the absence of an immediate crisis. In both cases, public pension reform did not come in the form of a single piece of legislation. Reform took over a decade to unfold. Initial legislation failed to shore up the pension system because lawmakers relied on overly optimistic assumptions and did not anticipate hard economic times. In both countries, commissions comprised of experts and politicians from major parties devised the solutions that ultimately proved viable.

Although the reform process in Germany and the United States followed a similar pattern, the measures themselves differed. The United States opted to shore up its pay-as-you-go system. Germany chose to introduce private accounts and a sustainability factor. The different choices may simply reflect the timing of each country's reform and the greater severity of the problem Germany faces.

United States policymakers can nonetheless learn from the German experience. One solution to the projected shortfall in social security would be simply to raise the payroll tax and the tax cap. An approximately 4 percentage point increase in the payroll tax, which would bring it to 16.4 percent, would close the gap at a tax rate well below the current rate in Germany. Nonetheless, policymakers may prefer alternatives to a hike in the payroll tax because cost increases for Medicare, which payroll taxes partially fund, are projected to dwarf those for Social Security. Ideas, such as a sustainability factor, may look very attractive economically and politically for both programs as a means to contain costs.

Germany's recent reforms have stabilized its public pension system, so long as the assumptions hold. It is not yet clear that they will. After a slow start, increasing numbers of German employees have been taking advantage of the subsidized Riester retirement accounts, but it is not yet clear whether that trend will continue, or whether enough employees are actually increasing their retirement savings as a result or simply switching savings into the Riester program to collect the subsidies. Expanding savings is critical if retirement incomes are to remain stable during the gradual reduction of the replacement rate for public pensions over the next few decades. The architects of the Riester program assume a 4-percent return on investment. This may prove to be overly optimistic in a Germany and a Europe with an aging and shrinking population.

The introduction of the stability factor has established an automatic and gradual means to reduce the replacement rate of public pensions that is sensitive to demographic and economic developments, and obviates the need for politicians to vote directly to reduce benefits. It is unclear, however, whether year

after year of no nominal increase in pension benefits is politically sustainable. Finally, it is not obvious that stabilizing the status quo is sufficient for the long-term viability of the German economy. Germany remains among the countries with the highest tax wedges. If simply left in place, it may continue to hobble Germany's long-term economic performance for decades to come.

Figure 1
 DEMOGRAPHIC PYRAMID: USA 2000 (shaded) AND 2050 (unshaded)

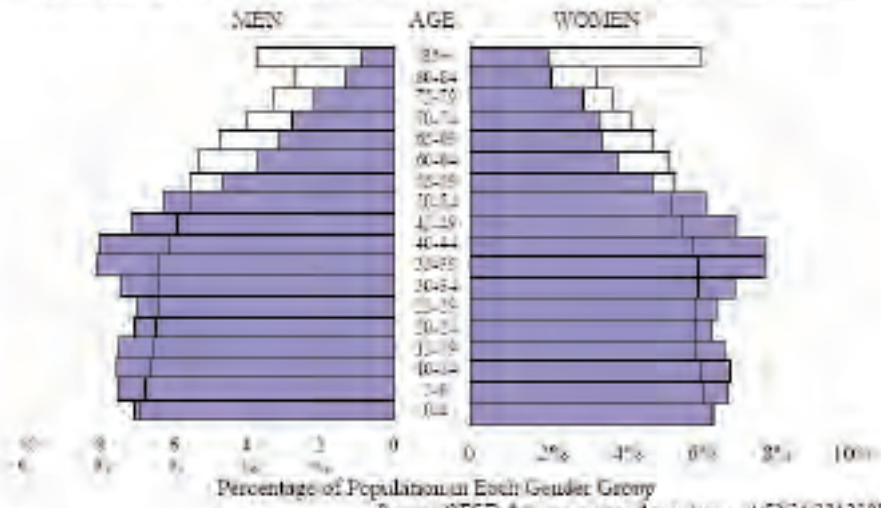


Figure 2
 DEMOGRAPHIC PYRAMID: Germany 2000 (shaded) AND 2050 (unshaded)

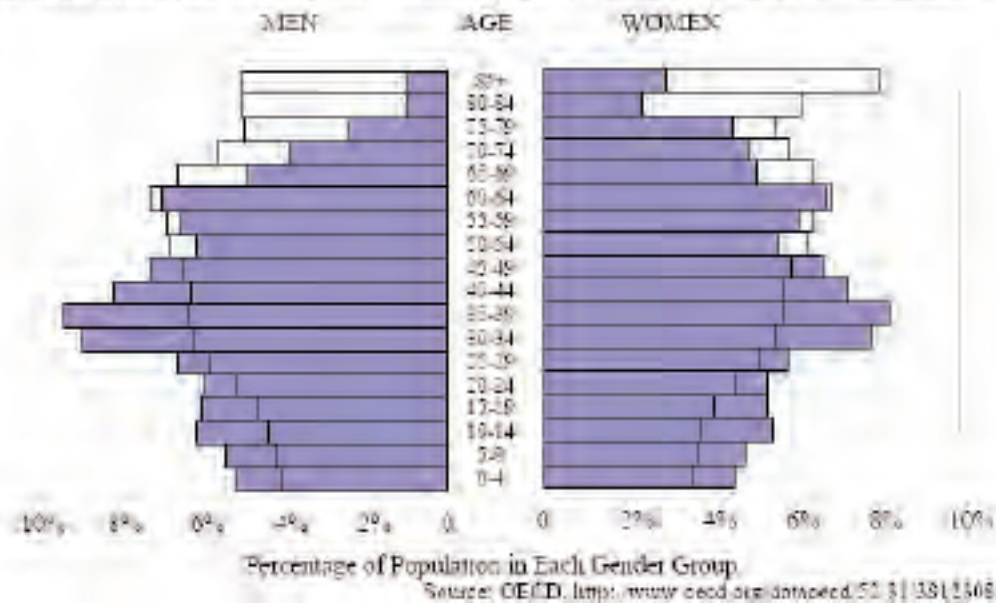


Figure 3

Combined Employer-Employee Contribution Rate to Pension and Disability Programs as a Share of Gross Earnings, 1960-2007

(Source: Bundesministerium für Arbeit und Soziales und Social Security Administration)

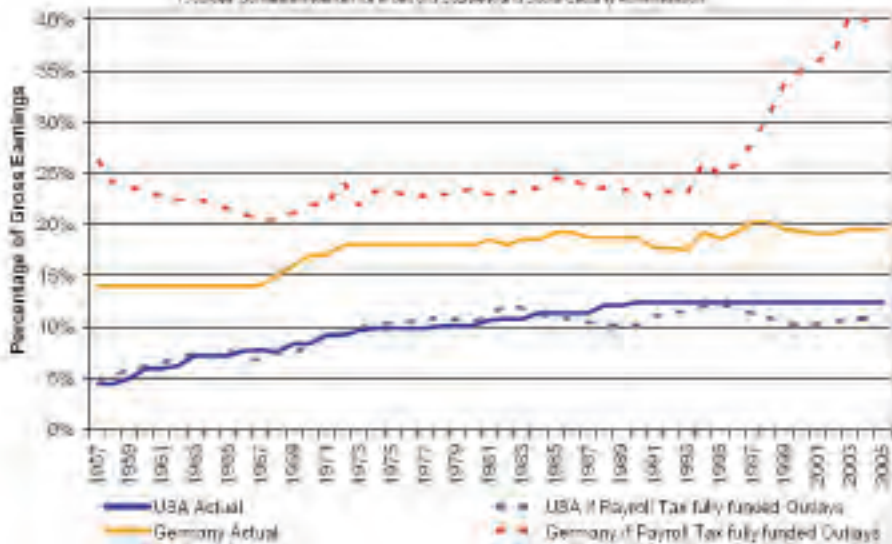


Figure 4

Germany; Mean Retirement Age, 1960-2005

(Source: Verband Deutscher Rentenversicherungsträger)

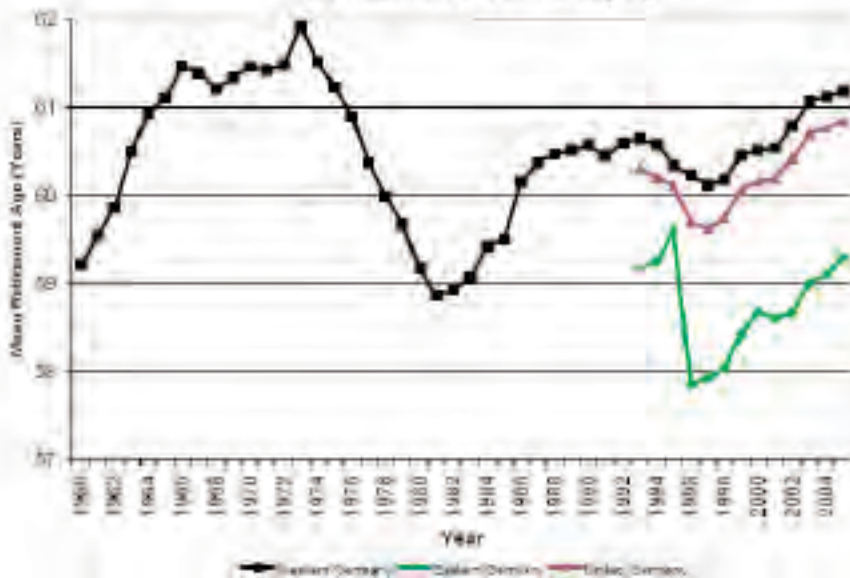
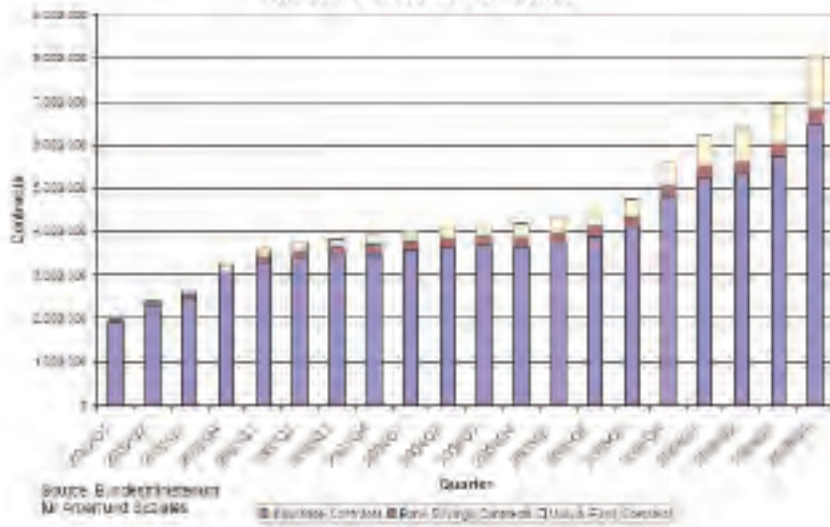


Figure 5
Riester Pension Contracts



NOTES

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