Executive Summary

Employers are the heart of the American pension system and yet they are not well understood by policy makers despite the great influence of Congress on pension design through both regulation and favorable tax treatment of retirement accounts. Employer contributions to employee pensions have remained stagnant and, in some cases, even declined. We conclude that the cause is a flawed system and one that is subsidized by Congress, making employers “race to the bottom.” This incidence is facilitated by the existence of defined contribution (DC) plans because they are attractive, less costly, and present readymade, though inferior alternatives to more generous (and more expensive) defined benefit (DB) plans. In the past, more employers used pensions effectively in order to time retirements and attract employees, while also remaining competitive. American employers also had paternalistic and reputational motives in offering plans that helped ease their employees’ retirement, however, over the past 30 years, employers have shifted from offering DB plans to DC plans, e.g. 401(k)-type plans, which have allowed employers to lower their costs to pension contributions in non-obvious ways. Now, as new firms enter the market offering nothing but 401(k) plans, employers across the board face tremendous pressure to adopt the cheaper pension arrangement.

In this study, we use four data sources -- the Heath and Retirement Study (HRS), the Bureau of Labor Statistics’ National Compensation Survey (NSC), the Current Population Survey (CPS), tax filings (Form 5500), and relevant statistics from the U.S. Census -- to examine the change in trends of employer pension contributions since the 2000s. Depending on the data set, we find that between the years of 2000 and 2008, employer pension contributions stagnated or decreased. In particular, the HRS shows employer contributions to DC plans steadily decreasing since 2002, from 13 % of pay in 2002 to 6.5 % in 2008. For specific industries, the largest drop was in the manufacturing sector with contributions as percent of pay having dropped by 56 % between 2000 and 2007.

In a multivariate analysis we control for the size of firm, average hourly earnings, unionization, and health care costs, and find that the unionization rate and health care costs play a significant role in explaining DC cost changes, presumably because unionized employees prefer DB plans and higher health care spending implies firms spending more on employee benefits in general. Surprisingly, the size of the firm and average hourly earnings do not play a significant role.

The fact that employers are opting out of the pension system is alarming to policy makers who hoped 401(k) plans would expand coverage and provide for adequate pensions. We compare 401(k)-type plans to automatic enrollment accounts and mandated accounts and conclude that individual automatic enrollment accounts do not solve the collective action problem, whereas mandated universal accounts would.
Pension Reform’s Stake in Employers

1. Introduction

The efficiency of the current U.S. pension system has been repeatedly questioned recently as evidence that Americans are ill-prepared for retirement has been mounting. Most of the work carried out on this issue has been centered on the employees themselves, their saving goals and investment decisions, while policy makers have paid little attention to the role that employers play in the pension system.

Employers use pension plans as valuable personal tools and thus have a natural stake in the debate over federal reform of the nation’s pension system. Since employment relationships are key to accumulating savings for retirement and private pensions have increased in importance particularly with regard to the percentage of income they represent for most retirees, it is also crucial that pension policy makers recognize they have a stake not only in the wellbeing of employees but also in determining what employers want and need.

Though Congress greatly influences pension design through regulation and favorable tax treatment for retirement accounts, there is a growing need to know the primary issues employers face when offering pension plans or individual accounts. What is clear is that most large employers sponsor and structure pension plans and retirement accounts only as reactions to the behavior of their competitors. Therefore, if enough employers cut retirement plan contributions and adopt 401(k) type plans instead of offering traditional plans, other employers will follow suit. The eventual outcome of this decline in retirement account balances is that employees might need to delay retirement right when the employer may want them to retire the most. After all employers have used pension designs not only to attract and retain employees, but also to let them go when needed.

This report documents the erosion of private employer pension contributions and suggests that industry behavior matters most in a firm’s decision on how to structure employee pensions. The remainder of this document is divided as follows: Section 2 evaluates the literature on the American retirement system and identifies the various reasons employers sponsor pensions. Section 3 examines trends in private employer pension contributions using data from four sources: the Bureau of Labor Statistics’ National Compensation Survey (NCS), the Current Population Survey (CPS), tax filings from Form 5500, and the Health and Retirement Study (HRS). The results of an original survey of 250 employer and pension plan sponsors in the private, government and nonprofit sectors are summarized as well. Section 4 compares 401(k) plans to a system of automatic enrollment in individual retirement accounts and to a mandated accounts system, focusing on the advantages and
disadvantages of these options from the perspective of the employer. The final section provides conclusions and recommendations for public policy from the employers’ point of view.

2. Why Do Employers Offer Pensions?

Several studies have been conducted by researchers and policymakers alike wherein they assess whether saving institutions such as 401(k) and Individual Retirement Account (IRA) plans increase savings. More specifically, the focus has largely been on whether or not tax breaks for these plans increase private savings for employees or merely shift existing savings from regular taxed accounts to tax-favored accounts. The hope in all this is that they do, however, research results have thus far been inconclusive due to the difficulties that have arisen from measuring individual preferences and behavioral traits on saving. As a result, it is still feasible that policy makers have been ineffective in getting anything out of the USD123b they spend each year in tax expenditures for these plans.

Vast amounts of literature on the effects of pensions on employees are available, yet very few studies focus on how, at firm level, they help employers. Indeed, most studies focus solely on employees at firms that offer a match rate, reporting mixed results on the relationship between employer matches and employee contributions. The second focus of this research is on the effects of automatic enrollment, which, again, focuses on employee behavior and not that of the firms. Consequently, there is no conclusive answer as to whether or not firm matches to employee contributions are effective in increasing savings or if automatic enrollment might raise long term participation and savings. There are even less answers available with regard to what the key motivation is for employers in offering pension plans at all.

Research on employers and their respective pension strategies have limited value to policy makers as they are unable to profit from the benefits of comprehensive research with solid empirical evidence on what makes an employer offer and contribute to a plan. Researchers, however, have developed several theories on the reasons why employers offer pension plans. A clear one is that employers offer them in order to attract or mold the workforce given certain characteristics such as a specific age range, education level, and gender, among others, while other studies conclude that firms offer pension plans mainly because of the preferential tax treatment they receive on pension benefits. Key studies hypothesize that employers offer retirement benefits in order to retain employees that have specific, acquired company skills and thereby reduce turnover and training costs. However, Mitchell et al. (2005) analyzed 401(k) plan designs. They conclude that plan sponsors design 401(k) plans primarily to satisfy highly paid employees and their demand for tax-advantaged compensation, while simultaneously providing lower paid employees with
minimum incentives to save to comply with federal nondiscrimination testing rules. Furthermore, some economists have speculated that pensions are screening devices because they presume employers believe or know that employees who save more are also more productive in the work place. If that is the case, we may conclude that employers offer pensions to attract and keep the best employees available. The literature on this includes studies investigating whether firms also offer pensions to induce older employees to leave the workforce during recessions. Lastly, it has been argued that firms believe a dollar spent on pensions will help them achieve greater goals than a dollar spent on wages or other labor costs. However, empirical evidence is inconclusive in this regard and difficulties in measuring individual productivity have made it hard to determine the existence of a trade-off between compensating wage differentials and pensions.

To summarize, there is a lot of literature available on the consequences of how matching affects employees, the effects of automatic enrollment and workforce characteristics. Yet very few studies focus on how 401(k) plans, at the firm level, help employers. Herein we analyze how employers are constrained by the current system and identify the causes that prevent firms from offering pension plans to their employees.

3. Pension Design and Contributions: Where we are now

Trends over the past thirty years show that the type of employer who will sponsor a pension has not changed and that it is small employers and employers in low profit, nonunionized sectors that do not, by and large, sponsor plans. However, the type of plan that is sponsored has changed. Sponsorship has moved from DB plans to DC plans (see box 1), while the adoption of new pension plans has also changed employer attitudes toward retirement saving.

Using data provided by employee and collected by the above-referenced sources, we analyze the characteristics of pension design in order to better understand the behavior of employers.

As previously stated, employers have various motives for adopting 401(k)-type plans: tax incentives, changes in industry norms, and because they are cheaper. In his regard, both employers and employees benefit from the advantages of retirement programs. In the case of 401(k)-type plans, employers get tax incentives to institute the plans, while employee taxes on contributions are deferred until retirement. Lazonick (2007) explains the shift in the prevalent type of pension plans as a result of globalization, which has driven domestic firms to change their business model in response to higher competitive pressure and to cut labor costs, as well as to attempt to maximize shareholder value. Analyzing the business model adopted in the information and communication technology industry, Lazonick shows that U.S. corporations have moved from an
“Old Economy Business Model”, which was structured around the notion of secured employment in a one company career that offered industrial union representation, DB pensions and employer-sponsored health insurance, to a “New Economy Business Model”, characterized by high labor mobility, non-unionized labor forces, DC pensions, broad-based stock options, and employees assuming the costs of medical insurance\textsuperscript{x}. Finally, the substitution of DC plans for DB plans in also rooted in the administrative cost advantages that they represent to the firms that adopt them. Ghilarducci and Sun (2006) showed that a firm that chooses to increase its spending on 401(k) plans (rather than on DB plans) by 10 \% decreases its pension spending per employee by 3.5 \%.

The competitive argument is familiar to most; as the labor market has become more mobile, firms now provide DC plans to make labor compensation more flexible. Because it is always true that one firm’s behavior is contingent on that of another, it takes only a few key firms adopting a new retirement option in order for the rest to follow. In 2005, Hewlett-Packard (HP) announced that it would cut 14,500 jobs and that, as of January 2006, new hires would no longer have the option of a DB plan, but would instead be enrolled in a 401(k) plan. HP CEO Mark Hurd explained the measures as follows\textsuperscript{x}:

“Our cost structure is putting HP at a competitive disadvantage. It’s simply not sustainable. When a company is structurally inefficient like we are, short-term fixes don’t work […]. I know this is not the best news you can get, but it’s what’s required for HP to become the great company it can be, once again.”

In other words and looking more closely at this specific industry, we can observe its oligopolistic nature and how this market structure often plays a role in who offers what type of pension. When the leading companies on the market

\begin{box}
\textbf{Box 1. Change in Pension Design:}

The HRS has surveyed people over 50 on their participation in pension plans, what sort of funding mechanisms are available to them and how they use the various benefits, what types of pensions are available to them, and their pension contributions. In 2000, the survey reported that 54 \% of older employees were participating in DC plans, while 35 \% had DB pensions. Eight years later, in 2008, only 15 \% of older employees reported maintaining a DB plan, while the larger portion (85 \%) reported being covered by some type of DC plan, with 52 \% of those surveyed contributing to 401(k) plans. Overall, only a slight majority of older private sector employees reported using any kind of pension plan through their employer.
\end{box}
change their benefits policy, medium and smaller companies usually follow the lead in order to remain competitive. Conversely, firms that are too small cannot cover their costs as compared to the giant computer manufacturers and are thus more likely not to offer any type of pension plan whatsoever. In this way, IBM (see below) and HP have set the trend for pension policy for other companies in their sector. Both companies currently rank 2\textsuperscript{nd} and 3\textsuperscript{rd}, respectively, by market capitalization, and the primary plans offered to employees are by and large DC i.e. 401(k)-type plans as a result of each firm announcing the freezing and later on the suspension of their DB plans.

We find insufficient evidence to indicate that the change in pension trends has been a consequence of or driven by employee preferences. Most new employees are offered a specific compensation package which might include a retirement plan that is not subject to significant or any changes. We also reject the claim that the change in industry composition (i.e. from manufacturing to service) has caused the trend in pension design to shift. For example, even though the role the manufacturing sector plays in the U.S. economy has shrunk in comparison to other sectors, employees in the service industry who are represented by a union still bargain for contracts with DB plans as opposed to DC plans.

Overall, the operational costs involved in running and maintaining a specific pension plan, regardless of type, are an important determinant in pension coverage and, indirectly, in the adequacy and efficiency of employee retirement plans. The idea behind the decision of most firms to offer a 401(k)-type plan is to save on their contribution to the pensions of their employees, especially given the fact that under a DB system, the plan sponsor has to assume investment and longevity risks. In contrast, under the 401(k) system, these risks are transferred to employees—an improvement for employer balance sheets but the administration and maintenance of these plans has proven to be costly for both, employers and employees. Furthermore, even if the rules governing DC plans are closely monitored and enforced by the government, most private pension plans are decentralized in nature, which translates into higher management fees for employers. Consequently, a firm will become stuck on a path that provides individual directed retirement accounts that result in rising administrative costs and fees and more financial risk for the employee. Not only does this mean that there are more leakages so to speak out of every dollar an American intends to save for retirement (see retirement adequacy risk in Box 2), but employers are left without a major personnel tool, namely the DB plan.

The Employee Benefit Research Institute (EBRI) has reported that another reason for employers to have substituted DC plans for DB plans is that they are better able to predict expenses by reducing contribution costs or by budgeting the former as a simple fixed percentage of pay.\textsuperscript{xi} In this way, the firm can gain better control over its liabilities and funding responsibilities. In 2005, IBM became a trend setter for industry leaders when it ended its DB plan coverage for
employees and substituted it for a DC plan because 75% of emerging competitors did not offer DB plans, either:

“In January 2005 (IBM) moved forward with a new 401(k) plan for new employees, under which they would receive a new, enhanced benefit in lieu of traditional pension benefits [...]. These changes continue IBM’s global strategy of shifting the future focus on retirement benefits toward the more predictable cost structure of defined contribution plans.” (Quote taken from the IBM 2006 Proxy Statement, p. 28, quoted in Lazonick, 2007).

Needless to say, many companies have followed the market example set by IBM and moved away from DB pension plans to adopting the less costly 401(k) plan, while others have stopped offering plans entirely.xii

The decentralized nature of DC plans has given firms the ability to control their involvement in employee retirement savings plans. Since in most cases contributions from employers are voluntary, 401(k)-type plans have become a cost management tool for firms, giving them access to financial resources in case of liquidity problems. In this way, 401(k)-type plans can be used as a potential cushion during tough times. In a recent example, the Center for Retirement Research reports that, as a result of the financial downturn, several companies announced the suspension of matching contributions to 401(k) plans, plan freezes, and/or termination of plans as a necessary measure due to liquidity constraints.xiii In 2001, recessionary forces reduced pension contributions, and companies such as General Motors, Ford, DaimlerChrysler, Textron, and Goodyear Tire & Rubber, among others, announced a suspension of their 401(k) matches.xiv In the latest financial crisis, firms across the board (FedEx, United Parcel Service, General Motors, and Honeywell International, to name a fewxv) made similar announcements. Although many firms have slowly started reinstating contributions towards employees’ pension plans, this recurring theme of suspending matches points to a deeper problem within the current DC system, namely that the accumulation of funds is not only highly volatile as a result of the change in pension design, but that it is also a cause of the volatility of the contributions themselves.
3.1. What Causes Employers’ to Vary the Costs of Their Employee Benefits?

Over the last decade, labor compensation costs have risen as a cause of wage issues, but mainly due to health care and employee pension costs. By evaluating the factors that make up DC pension plan costs in general, we can better understand what constraints firms face in providing efficient pension benefits to their employees and the resulting variances in contribution plans.
Using quarterly data of ten main industry groups from 2004 to 2009, we develop a regression model that includes a measure for the unionization rate in order to determine the degree of DC spending in these firms. We anticipate a negative effect for firms that are highly unionized as these tend to have a higher DB plan concentration. We include a measure for firm size and expect the effect on DC costs to be positive as larger firms tend to spend more on 401(k) plans than smaller firms that often do not offer any type of plan whatsoever. We gauge the share a firm spends on wages in order to test whether there is a trade-off between wages and salaries and pension benefits spending and also control for health care costs in order to determine if health care benefits crowd out DC pension spending. Finally, we include a measure for firm and year specific effects as we presume DC costs will vary across industries and by year. The model is specified as follows:

\[
DC\text{Cost} = \alpha + \beta_1 \text{union rate} + \beta_2 \text{firm size} + \beta_3 \text{avg. earnings per hr} + \beta_4 \text{health cost} + \delta_i \cdot \text{industry} + \gamma_t \cdot \text{year} + \epsilon
\]

Herein, the dependent variable represents the DC hourly cost for firms. The right hand side of the equation is composed of: the degree of unionization per industry, \textit{union rate}; the firm size for each industry, \textit{firm size}; and a measure of the average hourly earnings per industry, \textit{avg. earnings per hr}. We control for health care costs per hour, given by \textit{health cost}, and include dummies to account for industry and year specific effects, \(\delta_i \) and \(\gamma_t \), respectively. The error term is expressed by \(\epsilon\). The NCS data is quarterly while that of the CPS is yearly, which results in an unbalanced panel. In order to make the sample consistent we therefore cluster our regression by year and obtain the results as reported in table 2 below.

The regression results reveal that low unionization rates and high health care costs raise the hourly cost of DC plans. Industries with higher unionization rates have a higher concentration of DB plans. Health care costs per hour are positively correlated with DC cost, indicating that firms with better health benefits spend more on pension benefits. Both variables, unionization rate and health cost, are statistically significant at 5 and 1 percent levels, respectively.

We find that DC costs are higher for firms in finance, professional and business services, and transportation and utilities, which we associate with the fact that these industries have better compensation packages. The cost decreases for manufacturing, and wholesale and retail trade, which confirms the claim that firms in the latter two industries spend less on DC benefits, if anything at all.
The size of the firm, surprisingly, does not affect DC costs. Including a measure for net income after taxes as an alternative proxy for size does not significantly affect DC costs for firms (results not reported here). Average earnings per hour have a slight negative impact on the DC cost per hour, however, it is not statistically significant and therefore we conclude that there is no evidence that there is a trade-off between wages and pension benefits.

Finally, controlling for industry type, the indicators for the year tell us that employer spending on DC plans is secular and that it has decreased independently from the business cycle trend.

Table 1. Regression Results for the Cost per Hour of Defined Contribution Plans, 2004 to 2009

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) DCcost</th>
</tr>
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<tbody>
<tr>
<td>Unionization Rate</td>
<td>-0.405**</td>
</tr>
<tr>
<td></td>
<td>(0.103)</td>
</tr>
<tr>
<td>Size of Firm</td>
<td>0.0000191</td>
</tr>
<tr>
<td></td>
<td>(0.0000115)</td>
</tr>
<tr>
<td>Average hourly rate of pay</td>
<td>-0.005</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
</tr>
<tr>
<td>Health Costs per Hour</td>
<td>0.324***</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
</tr>
<tr>
<td>Educational and health services</td>
<td>-0.095</td>
</tr>
<tr>
<td></td>
<td>(0.111)</td>
</tr>
<tr>
<td>Financial activities</td>
<td>0.174***</td>
</tr>
<tr>
<td></td>
<td>(0.026)</td>
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<tr>
<td>Information</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>-0.057</td>
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<tr>
<td></td>
<td>(0.049)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-0.228***</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
</tr>
<tr>
<td>Other services</td>
<td>0.031</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>0.063*</td>
</tr>
<tr>
<td></td>
<td>(0.025)</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>0.082*</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>-0.166**</td>
</tr>
<tr>
<td></td>
<td>(0.056)</td>
</tr>
<tr>
<td>Year 2005</td>
<td>-0.019**</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
</tr>
<tr>
<td>Year 2006</td>
<td>-0.030**</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
</tr>
<tr>
<td>Year 2007</td>
<td>-0.039**</td>
</tr>
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</table>
We conclude that defined contribution costs vary across industries and that contributions to these plans have decreased over the last 5 years. This may come as a surprise to policy makers because employers have reduced their commitment to DC contributions, which, coupled with stagnant wages, suggests that employee ability to save sufficient portions of income for retirement has been drastically impairedxvi.

This may come as a surprise to some policy makers as employers have reduced their commitment to DC contributions, which, coupled with stagnant wages, suggests that the ability of employees to save enough income for retirement has been drastically impairedxvii.

To better understand employer attitudes concerning pension provision, we surveyed over 250 employer plan sponsors and plan advisors in the U.S. The survey was distributed at the fifth annual PLANSPONSOR National Conference 2010 and covers a range of topics: employer costs for employee benefits, employer perceptions on defined contribution plans, their views on the current system and proposed alternatives, as well as social security concerns and employer opinion on employee saving adequacy.xviii

We summarize our findings in 3 main points. Firstly, employers and plan sponsors are worried about the lack of preparation their employees have for retirement. Those surveyed recognize that retirement saving inadequacy is due partly to individuals not saving enough annually and maintaining poor spending habits, but, more importantly, also due to the fact that the current system does not provide the necessary tools to ensure adequate funds at retirement. Secondly, employers and plan sponsors opine most firms do not sponsor plans or expand them because they are too expensive for companies, government entities, or nonprofit organizations (44 %), compared to administrative burdens and the complexity of rules regarding their regulation (22 and 21 %, respectively). Lastly, we found the plurality of respondents (52 %) chose “mandating that
people save more” over raising the retirement age (29 %), raising taxes (10 %), or cutting benefits (8 %), as the most appropriate way in which countries could solve the increasing costs of an aging society. This position was amplified when 63 % of respondents indicated they were in favor of mandating people save more in order to supplement their Social Security benefits, while only 13 % strongly disapproved of such a measure.

In the next section, we take a closer look at the issue of changing contributions using data from the HRS. The survey shows that employer pension contributions are different for firms in any given year and that they also change over time. We explore this change in greater detail.

3.2. How Employees Report What Their Employers Do

According to the responses of older employees to the HRS between 2000 and 2008, employer contributions to pension plans have been steadily decreasing since 2002. We conclude that this is primarily a result of the financial downturn of 2001 when cash-strapped firms began cutting spending by suspending pension benefitsxix. We find DC contributions actually rose from 2000 to 2002, roughly the same period when major firms in the United States started terminating and/or freezing their defined benefit plans.xx The data shows that the average employer contribution as a percentage of pay was at its highest in 2002, at 13 % and that, in 2008, the average rate of contribution had decreased to 7 % of pay, while employee contribution has remained fairly steady at approximately 9 % of pay (see figure 1).

The above demonstrates that employees have kept their own efforts going, indicating a willingness to save, whereby employers are also more affected by financial pressures. The DC structure allows too much leeway for employers and thus creates a collective action problem: If employers were part of a system that required steady contributions then competitive and shareholder pressures would have no influence on pension contributions and employers would be better off because they could retire employees in downturn periods.
As shown in the figure above, between 2002 and 2005, employers contributed more to DC plans than employees did. Yet, as the economy boomed in 2006, employer contributions, as a percent of pay, fell below that of employees, a clear illustration of the fragile structure of voluntary, individual-directed 401(k) plans because this a system that does not encourage reliable, steady decreases in current consumption in order to provide for future consumption power. Furthermore, the rationale behind tax favoritism of retirement accounts—which is one of the largest tax expenditures in the federal budget at approximately US$123b\textsuperscript{xxi}—is to safeguard retirement income security. However, the 401(k) structure militates against meeting that goal because securing retirement at the very least requires steady contributions from employees and employers, while the pension system should be such that, during years of economic prosperity, a firm should be not decreasing contributions. As we have seen, under the current system, the vast majority of firms has not maintained steady contributions.

This is not to say that any individual private employer is to blame for the shortfall. In the current system, everyone loses, and it is both a collective action problem and as well as a structural problem. Employees, too, are not meeting their own savings needs due to poor investment decisions or poor saving goals. This can further be explained by the current system’s restrictive eligibility requirements and the fact that participation in 401(k) plans is voluntary, which naturally contributes to inadequate saving.\textsuperscript{xxii}
3.3. How Employers Report What They Do: Findings from Form 5500

Every year employers file financial data on pensions with the IRS on the latter’s Form 5500. This data shows DB contributions per active participant have sharply decreasing since 2003, a consequence of the increasing number of firms that have frozen and terminated their DB pension plans in response to competition. This was followed by the adoption of the so-called “New Business Model”, resulting in eroding expectations of what firms should provide their employees in terms of pensions.

The Form 5500 data shows that both employers and employees increased DC contributions between 1997 and the early 2000s (see figure 2), however, we also observe that DC contributions dropped between 2003 and 2005, despite the economic expansion. This is disturbing, as Weller (2005) has argued, because firms need to raise pension contributions in good times and be able to moderate them in bad times. 401(k) plans do not encourage this type of behavior. From 2005 to the most recent data period, contributions per active participants have increased slightly, a phenomenon best explained by the abandonment by large industry leaders, such as IBM, of the DB plan in exchange for DC plans and not by a resurgence of commitment to DC pension plans in the form of larger matches to more employees.

Decreasing or stagnant contributions per active participant over time could be product of an increasing number of new plans being created that have small balances due to lower contributions at the onset. Yet, even with the addition of new plans, the number of active participants reported in Form 5500 has remained fairly constant since the 2000s. We therefore conclude that the addition of new pension plans in recent years has no explanatory effect on the decreasing contribution levels made by employers but only indicates that contributions to pensions have indeed remained stagnant in recent years.
To review, the increased use of DC plans is coincident with a decrease in the total amount of contributions per employee by US$350 from the peak in 2003 and up until 2007, which marked the beginning of the financial crisis, a clear indicator of the anemic state of the current pension system for promoting adequate retirement savings.

4. Public Policy and the Future of Employer-Provided Pensions

Employer contributions to pensions have stagnated, not because employers do not need pensions (or employees do not want them) but due to the current system not meeting their needs. In this section we compare two retirement proposals, namely automatic enrollment in individual retirement accounts and mandated accounts to the current pension system, specifically 401(k)-type plans. The strengths and weaknesses of these alternatives are evaluated following the same format the Government Accountability Office (GAO) used in its 2009 report on alternative approaches to private pensions in their ability to address lack of coverage, insufficient contributions, risky investment returns, lack of portability, pre-retirement leakages, high fees, and the possibility of outliving retirement savings.

In respect to coverage and contributions, 401(k)-type plans and automatic retirement accounts are both voluntary plans. In many firms, employees can enroll in 401(k) plans, usually after the first 6 months to 1 year of working for the company. In some firms, employers automatically enroll employees in a 401(k).
In both cases, the employee contributes a percentage of his or her pay and the employer either matches it based on a determined formula or makes non-matching contributions. The limitation of this system is that employees tend to contribute only at the default level and therefore do not save enough. Additionally, employees can choose to opt out of the program, which many do. In contrast, in automatic retirement accounts, employees are automatically enrolled and can start contributing a set percentage at any point in time. Employees can choose to increase or decrease contributions or opt out altogether. Similarly to automatic enrollment for 401(k) plans, the goal of these accounts is to increase participation, especially among lower-income employees who tend to have obviously lower saving rates. Yet the impact of automatic enrollment on increasing savings rates has been mixed (see above). In the case of mandated accounts, participation is obligatory for all employees who are not enrolled in an equivalent program and both employees and employers are required to contribute to the plan. The mandated accounts approach extends coverage to all employees who do not have a pension and at the same time ensures that contributions are made.

Consequent to the increasing number of 401(k)-type plans in American companies, employees now face greater risks in terms of investment returns and asset allocation. Automatic enrollment accounts may offer more conservative investment combinations for employees to choose from, however, these accounts are largely managed by the individuals themselves, which, in turn, does little to lower the investment risk which 401(k) holders are subject to. Mandated accounts, on the other hand, offer employees more options such as indexed bonds, a diversified portfolio of assets, mutual funds and similar assets, and the individual does not direct the portfolio. The funds are invested by professional money managers (similar to those who manage DB investments) and administered by a government entity such as the Social Security Administration. Only mandated accounts represent a lower risk of investment for participants and shared risk between employers and employees.

In the current system and in the two alternative designs, plans are fully portable and contributions fully vested. Conversely, only mandated accounts prevent leakage by allowing hardship withdrawals only in cases of disability, preventing participants from cashing out contributions before retirement as 401(k) plans and automatic enrollment accounts allow.

Only mandated accounts carry lower fees than the current system and automatic enrollment accounts. Indeed, the latter may even charge higher fees to employees than 401(k) plans and thus yield higher profits for commercial IRA managers. Automatic enrollment individual accounts may offer a tax credit to employers to cover the initial setup of the account, however, fees for participants are most likely increase due to commission and management fees. In contrast, mandated accounts represent the least costly option for both employers and
employees due to their centralized structure: funds are pooled into a sovereign fund administered by the Social Security Administration or other government group, thus creating virtually no administration fees.

Lastly, automatic enrollment individual accounts and mandated accounts tackle the problem that many 401(k) owners face in the near future, namely that of outliving their retirement savings. The former offers an annuity as the default option, although participants can opt out and receive a lump sum instead. Mandated accounts distribute benefits in a compulsory inflation adjusted annuity, though a partial lump sum is also allowed. Table 3, below, summarizes the characteristics for the three systems.

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<thead>
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<th>Table 3. Characteristics of a Good Pension System</th>
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<td><strong>Characteristic</strong></td>
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<tr>
<td>Universal coverage</td>
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<tr>
<td>Portability</td>
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<tr>
<td>Pooled assets, efficiently administered</td>
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<td>Shared responsibility</td>
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<tr>
<td>Adequate pensions</td>
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<td>Targeted government aid</td>
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<td>Annuities</td>
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<td>Payout at retirement</td>
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</table>

Assessing the three options from an employer perspective, as well as the characteristics discussed above, we argue that mandated accounts have the highest value per dollar spent on pensions for employers. As discussed above, a primary problem with 401(k) plans is that its design allows for leakages and for employees to get away with untimely spending of the money that employers contribute. Similarly, automatic enrollment individual accounts present leakages in the form of fees to commercial banks and entities in charge of managing the funds. Due to their centralized nature, mandated accounts do not pose this problem of leakage and firms do not incur maintenance fees or asset management expenses. Mandated accounts ensure employers that they are providing their employees with a plan that allows them enough income for their retirement. It provides employees with enough savings and employers with the ability to help employees retire when necessary. This option also lifts the burden.
the current system represents for employers in terms of rules complexity and fiduciary liability, since funds are administered by a “sovereign administrator”.

Under mandated accounts, federal tax policies and nondiscrimination testing rules would be simplified, preventing inequities among firms\textsuperscript{xxiv}. Adopting a system such as the one proposed in this paper would contribute to improved labor standards whereby firms would be constantly contributing towards employee pension plans. Mandatory contributions to a retirement plan also help create uniformity of retirement saving across industries, independent of firm-specific characteristics\textsuperscript{xxv}. Finally, mandated accounts provide a sense of shared responsibility; neither the employers nor employees have to bear risks on their own due to the centralized nature of the proposal.

5. Conclusion and Public Policy Discussion

Although we found evidence that pension contributions are sensitive to economic conditions, the overall alarming conclusion is that there is a persistent secular stagnation in employers’ pension contributions. This palpable shrinkage of employer pension engagement, despite evidence that employers can use pensions in human resource management and that they are concerned about the retirement security of their employees, suggests that the current system is not working well for employers or, indeed, for employees. We explain the rise in the number of DC plans and the resulting decline in employer contributions as a collective action problem stemming from the oligopolistic nature of companies and fierce competition strategies. Congressional support in the form of expanding contribution limits for 401(k) and IRA accounts have created and deepened this collective action problem, that is to say that firms have adopted 401(k)-type plans for their employees that do not require them to make contributions because their competitors are doing the same, resulting in an system where no one really benefits. This situation now requires policy makers to engage in serious, broad retirement policy reform in order to secure adequate retirement plans for an aging population.

We conclude that automatic enrollment individual retirement accounts might increase participation but neither solves the collective action problem nor that of retirement insecurity. A mandated, non-commercial, pension alternative would solve the collective action problem, as it implies a reduction in competition, given that all employers have to participate and contribute, increases retirement savings, and secures retirement income, an optimal win-win case for both employees and employers alike.
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Endnotes:


ii Choi, Laibson, Madrian, and Metrick (2004); Munnell and Sundén (2003); and VanDerhei and Copeland (2001) find a positive relationship between employer matches and employee contributions. In contrast, Engelhardt and Kumar (2006) find little relationship (the elasticity of participation with respect to match rates ranges from 0.02 to 0.07) so that employer matches do not increase retirement saving. Munnell and Quinby (2010) conclude that employers suspended their 401(k) match after the financial collapse because of liquidity constraints, not because profits fell.

iii Soto and Butrica (2009) find automatic enrollment increases employee participation but reduces employer matching: the increased costs of offering automatic enrollment results in a seven percentage points decline in match rates compared to firms that have not adopted the measure. Madrian and Shea’s (2001) study shows more promise for automatic enrollment in terms of participation rates for new employees, from 49 to 86 percent.


v Gale, Shoven, and Warshawsky (2005)

vi DC-type plans include 401(k) plans, Individual Retirement Accounts (IRA), profit-sharing, Employee Stock Ownership Program (ESOP), cash balance plans, among others.

vii See Munnell (2006) and Munnell and Soto (2007) for an overview of the shift from DB to DC plans.

viii See Lazonick (2007)


x Lazonick (2007)

xi Salsbury, Dallas., and Liz Buser, EBRI Notes, June 2009, Vol. 30, No. 6

xii The HRS survey reports the percentage of employees who had access to a pension plan decreased by 5% from 2006 to 2008, evidencing the decrease in employer pension coverage in recent years.

xiii Munnell, and Quinby (2010)

xiv Ibid.

xv Laise and Greene (2010)

xvi The HRS asks respondents to rank and compare retirement years to pre-retirement years. In year 2000, 60 percent of respondents were very satisfied with their retirement years. In 2008, respondents’ satisfaction in retirement years had gone down by 7 percentage points. Similarly, when asked to compare retirement to pre-retirement years, 49 percent of those surveyed ranked their retirement as “better” than pre-retirement compared to 44 percent in 2008, though the record low was reported in 2006, when only 40 percent felt retirement years were better.

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xviii The complete survey results are available upon request.

xix Munnell, and Quinby (2010)

xx Despite the difficulties in accurately measuring the exact number of frozen plans, Aon Consulting reported that, between 2001 and 2003, 13% of 1,000 plans had frozen benefits (Government Accountability Office report, 2003). The 2001 recession lasted only 8 months, yet the number of defined benefit plans frozen or terminated has only increased in recent years; for instance, Watson Wyatt reported a large increase in large firms that froze plans—113 firms on the Fortune 1000 list had frozen DB plans in 2005 as compared to 71 firms on the same list in 2004 (Taub, 2006).

xii The Office of Management and Budget reports net exclusions of pension contributions and earnings by type of plan. We report the total amount of tax expenditure for 401(k) plans, IRA, employer plans and Keogh plans. 401(k) plans alone cost the U.S. government US$53.549b in 2010.

xxii Pence (2001)


xxiv Mitchell et al. claim that matching rates and participation tend to be more generous for higher paid jobs, thus nondiscrimination rules favor employees in better-paid jobs and not those in lower-paid jobs.