401(K)S AND COMPANY STOCK: HOW CAN WE ENCOURAGE DIVERSIFICATION?

By Alicia H. Munnell and Annika Sundén*

AN ISSUE IN BRIEF
CENTER FOR RETIREMENT RESEARCH AT BOSTON COLLEGE

JULY 2002, NUMBER 9

Executive Summary

Over the past two decades, the private pension system in the United States has shifted from defined benefit to defined contribution plans, and the fastest growing defined contribution plans are 401(k)s. The defining characteristic of 401(k) plans is that employees, rather than employers, bear the investment risk. Currently, many employees hold a significant portion of their 401(k) funds in their companies' stock, which increases the risk of their plans.

This investment behavior contradicts standard asset allocation theory. Investing in one stock rather than a diversified portfolio creates more risk without providing any increase in expected returns. In addition, plan participants hold an asset whose value is closely correlated with their own earnings. Due to these two factors, financial experts generally advise against holding large shares of company stock in retirement accounts such as 401(k)s.

Despite the advantages of a diversified retirement portfolio, over 8 million 401(k) participants hold more than 20 percent of their 401(k) assets in company stock (VanDerhei 2002). The evidence suggests that most participants are not sophisticated investors; they underestimate the risk of investing in company stock and tend to buy what they know. The tendency to hold high concentrations of company stock is greater when the employer matches in company stock because it not only boosts holdings directly but also encourages employees to contribute more on their own. Employers strongly value the opportunity to match in stock rather than cash, because it allows them to hold on to their valuable cash reserves, and they believe that it helps align the interest of the employee with that of the firm.

The challenge for policymakers is to help promote well-diversified portfolios without damaging the usefulness of 401(k) plans. Employers have indicated that if they cannot match in company stock, they will cut back on their contributions. If that did happen, it would undermine retirement security since the presence of an employer match (if not the size of the match) strongly encourages

* The authors are both with the Center for Retirement Research at Boston College (CRR). Alicia H. Munnell is the Director of the CRR and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management. Annika Sundén is the Associate Director for Research of the CRR.

INSIDE

employee participation and contributions. The other complicating factor is that employees like to buy company stock. They see executives getting rich and they want to have their chance to do so as well.

A consensus has emerged among policymakers that employees should be able to diversify more easily. That is, they should be able to sell the company stock as soon as they are vested. The other area of general agreement is that employees should be well informed that they are taking on excessive risk in concentrating their 401(k) assets in a single stock. The main area of disagreement is whether to directly limit the purchases or holdings of company stock. Whatever decisions are made, employees will benefit from policies that encourage diversification without reducing the willingness and capacity of employers to offer attractive 401(k) plans.

Introduction

In recent years, defined contribution pension plans — which include the popular 401(k) plans — have emerged as the dominant type of private pension arrangement. As the population ages and 401(k) plans continue to mature, more and more people will rely on them to support their living standards in retirement. In response, researchers and policymakers have begun to evaluate whether any changes are needed to enhance the ability of 401(k) plans to help provide individuals with adequate retirement income. One issue that has received increasing attention is the extent to which employees hold large amounts of company stock in their 401(k) accounts.

This *issue in brief* begins with a discussion of what modern financial theory says about investment diversification. It then summarizes federal rules and regulations governing private pension investments. Next, the *brief* examines the extent of investment in company stock and analyzes the factors that influence these investment patterns. After detailing some of the problems that can result from large concentrations in company stock, the *brief* concludes with a summary of the legislative proposals currently under consideration.

Financial Theory Supports a Diversified Investment Strategy

Concentrating investments in company stock is dramatically at odds with modern financial theory, which says that diversifying a portfolio offers large gains at very little cost. Investments involve three different types of risk: market risk, industry risk, and firm risk. All securities are subject to market risk, which reflects the general state of the economy, interest rates, and the business cycle. This risk is not easily eliminated. Industry risk refers to the risk that affects the companies in a particular line of business. Firm risk includes factors that affect the profits and losses of a specific company. Take international oil companies as an example. All of them suffered from the 1973 oil embargo (industry risk), but only Exxon suffered from the Alaskan oil spill in 1989 (firm risk). Holding stock in non-oil sectors of the economy would have helped offset the decline in oil stocks in 1973, and holding shares in oil companies other than Exxon would have helped offset firm risk in 1989 (Langbein 2000).

For any expected rate of return, holding stocks in a number of companies and across industries reduces the risk in one's portfolio. It is even more important for employees of a given firm to diversify their investments away from their employer. Concentrating their 401(k) investments in company stock means that employees are not only concentrating their assets in a single stock, which is more risky than a diversified portfolio, but they are investing in a security that is directly correlated with their own human capital and earnings. Large concentrations of company stock make 401(k) plans unnecessarily risky, since individuals could obtain the same expected level of return with less risk by diversifying. And for many people, their 401(k) plan and their home are their only assets.

The broad benefits of diversification may not be obvious given that more than a few individuals have done spectacularly well by investing in a single stock. But the key point is that no one knows in advance how any individual stock will perform in the future. Given this uncertainty, the most efficient method of investing — regardless of one's tolerance for risk — is to diversify. The notion of "striking it rich" by choosing the right company may have a powerful emotional appeal, but it is not the most effective way to achieve a given investment goal. For example, venture capitalists, who have a high tolerance for risk, do not typically invest all of their money in one promising start-up; instead, they pick a number of promising start-ups to improve their chances of backing one or two that will emerge as highly successful companies.

Current Pension Rules Do Not Limit Investments in Company Stock

Lawmakers recognized the advantages of diversification when Congress in 1974 enacted the Employee Retirement Income Security Act (ERISA), the legislation that regulates private pension plans.[1] ERISA requires that fiduciaries (plan sponsors, plan administrators, and advisors) diversify plan investments and requires that no more than 10 percent of defined benefit assets be held in company stock and real property.

While ERISA is quite forceful with regard to diversification for defined benefit plans, it provides defined contribution plans considerable latitude for investment in company stock. First, ERISA exempts most defined contribution plans — including profit sharing plans, 401(k)s, and Employee Stock Ownership Plans (ESOPs) — from the diversification provisions with regard to investment in company stock. Second, it exempts defined contribution plans from the 10-percent cap on company stock.[2]

The differential treatment of defined benefit and defined contribution plans with regard to diversification reflects the government's interest in pursuing two separate goals — one to encourage saving for retirement and the other to support employee stock ownership. When ERISA was enacted, it was easier to pursue the two goals simultaneously because they involved different vehicles. Defined benefit pension plans provided for retirement income, while defined contribution plans — most notably profit sharing plans and ESOPs — enabled employees to acquire company stock.[3]

Today, the lines between retirement saving and company stock ownership have blurred. Defined contribution plans are no longer simply a supplement to defined benefit plans; defined contribution plans — particularly 401(k) plans — have replaced defined benefit plans as the core of our private retirement system. At the same time, many firms have created plans that combine 401(k) and ESOP characteristics. The result is that many workers have a significant amount of their retirement saving invested in the stock of their employer. In such cases, company stock acquisition undermines the goal of retirement security as individuals take on additional risk in their portfolios without improving their expected returns.

Extent of Concentration in Company Stock

In 2000, about 19 percent of 401(k) assets were invested in company stock (Holden and VanDerhei 2001). Looking at aggregate numbers, however, does not really tell the story; most 401(k) plans (97 percent) do not offer company stock as an investment option. Instead, company stock is concentrated among large firms. As Table 1 shows, 72 percent of firms with 5,000 or more employees offer company stock in their 401(k) plans compared to only 7 percent for firms with less than 50 employees. Because company stock is concentrated in large firms, the small percentage of firms that do provide company stock represent 42 percent (roughly 18 million workers in 2000) of 401(k) participants and 59 percent of account balances (VanDerhei 2002).

Table 1: Company Stock Holdings by Size of Plan

Number of plan participants	Percent of plans offering company stock	Company stock as a percent of total assets
5,000 or more	72.0%	43.3%
1,000 – 4,999	40.3	10.7
200 – 999	18.5	6.2
50 – 199	6.3	3.6
1 – 49	7.1	1.2

Source: Profit Sharing/401(k) Council of America (2001).

[1] Actually, pension plans must abide not only by ERISA, but also by the Internal Revenue Code of 1986 in order to be tax qualified — that is, for contributions and investment earnings to be treated on a tax-deferred basis. As a result, pensions are jointly regulated by the Department of Treasury, which oversees vesting, funding, and participation requirements, and by the Department of Labor, which administers reporting and disclosure, fiduciary issues, and employee benefit rights.

[2] According to those involved with the process, early proposals for ERISA had a 10-percent cap for both defined benefit and defined contribution plans, but companies sponsoring profit sharing plans that were heavily invested in company stock blocked a cap on defined contribution plans (PWBA 1997).

[3] Another reason for government concern about diversification in defined benefit plans, but not in defined contribution plans, is that through the Pension Benefit Guaranty Corporation it provides insurance for defined benefit promises — up to certain limits — and wants those promises backed by a diversified portfolio. The government provides no comparable insurance for defined contribution plans.

Not only is company stock ownership concentrated among large firms, but many large, well-known companies sponsor 401(k) plans that are almost entirely invested in company stock. Table 2 shows that Proctor & Gamble ranks first among the top dozen that includes Coca-Cola, General Electric, and other familiar names. To put these holdings in perspective, as noted below, at its peak, 60 percent of Enron's 401(k) plan assets was invested in company stock.

Table 2: Company Stock in Selected 401(k) Plans, November 2001

Company	Company stock as a percent of 401(k) assets
Proctor & Gamble	94.7%
Sherwin-Williams	91.6
Abbott Laboratories	90.2
Pfizer	85.5
BB&T	81.7
Anheuser-Busch	81.6
Coca-Cola	81.5
General Electric Co.	77.4
Texas Instruments	75.7
William Wrigley, Jr.	75.6
Williams	75.0
McDonald's	74.3

Source: Institute of Management and Administration (2001).

Company stock can end up in a 401(k) plan in one of two ways. The firm can offer company stock as an investment option for the employee and/or it can require that any employer matching contribution be invested in company stock. Surveys suggest that, among firms that offer company stock as an investment option, about 45 percent also make matching contributions exclusively in company stock, while 55 percent do not (Hewitt 2001). Individual holdings appear to be strongly influenced by whether or not the employer directs the match into company stock. Employees who are free to choose invest 22 percent of their contributions in company stock, while those whose employer directs the match to company stock end up with 53 percent — 33 percent from their own contributions and 20 percent from the employer match (Holden & VanDerhei 2001). The average share held in company stock also masks considerable variation among individuals. As Table 3 indicates, about 35 percent of participants in plans offering company stock hold none at all, and 17 percent are almost entirely invested in company stock. Since some recent legislative proposals, which will be discussed below, have called for a cap of 20 percent, it is interesting to note that 46 percent of participants in plans offering company stock hold more than 20 percent of their 401(k) assets in that form.

Table 3: Extent of Company Stock Holdings by Participants

Company stock as a share of 401(k) assets	Percent of participants at firms offering company stock with share
Zero	34.5%
0 to 20%	19.3
20% to 40%	13.5
40% to 60%	9.7
60% to 80%	5.7
80% to 100%	17.3

Source: VanDerhei (2002).

One aspect of the company stock discussion is how much goes into the plan; the other dimension is restrictions on the participants' ability to sell that stock in order to diversify their holdings. According to one survey, 85 percent of plans which match in company stock place some restriction on when employees can diversify (Hewitt 2001). For example, at Coca-Cola, the age at which participants can sell their stock is 53. Proctor & Gamble, Qwest Communications, and Enron have similar age requirements (Schultz and Francis 11/27/01). The picture may be changing, however. A recent report by Fidelity (2002), on the plans it administers, reports that 36 percent of the plans (covering 21 percent of participants) had either removed restrictions on the sale of company stock in the last year or were considering such a change.

Why Do Employees Invest in Company Stock?

The most likely explanations for employee investment in company stock are that most people are not very sophisticated investors, and employer matches in company stock serve to encourage employees to buy additional company stock.

Financial Decisionmaking

In a series of surveys by John Hancock (2001) over the period 1991-2001, less than one-quarter of respondents characterized themselves as knowledgeable investors. Even those who thought that they were knowledgeable showed considerable confusion.[4] This general lack of financial sophistication is reflected in respondents' perception of the risk associated with investing in company stock. Participants consistently ranked it as less risky than a diversified stock fund. In other words, as a group, 401(k) participants do not appear to appreciate the risks associated with investing a significant portion of their portfolio in the stock of their employers.

In addition to underestimating risk, employees place a lot of weight on past performance and like to invest in something familiar, something they know. Plan participants tend to assume that if their company's stock has done well in the past, it will do well in the future. In one recent study (Benartzi 2001), employees of firms with the worst performance over the last 10 years allocated 10.4 percent of their contributions to company stock, while employees whose firms experienced the best performance allocated 39.7 percent. Rational investors know that past performance does not indicate that recent trends will continue; indeed, if anything, it implies an eventual return to the long-run average. Not surprisingly, employees who buy company stock after it has appreciated do not fare well going forward. In fact, in the following year, employees who had invested the most in company stock earned 6.8 percent *less* than those who had purchased the least.[5] In short, plan participants tend to rely on excessive extrapolation of past trends when all evidence is that past trends provide little information about the future.

"Endorsement Effect"

The Benartzi study (2001) also found that participants are influenced by the employer match. In this sample, when the employer match was in cash, employees invested 18 percent of their own contributions in company stock; when the match was in company stock, 29 percent. Employees appear to take stock matches as a statement that company stock is a good investment — that is, the employer's provision of company stock has an "endorsement effect." In follow-up questionnaires, the author asked two groups how they would respond if their employer provided a match in the first case in international equity and in the second case in a diversified stock fund. In each case, employees indicated that they would buy more of the "endorsed" option. In contrast, rational investors would reduce their holdings of the employer match option since that is the only way to maintain their original overall asset allocation.

Why Do Employers Provide Company Stock?

Employers clearly value making their 401(k) match in company stock and offering employees company stock as an investment option. The question is why. Employers imply that it is cheaper to make contributions in stock than in cash, and they argue that holding company stock aligns the interests of employees with that of the firm. Further, putting company stock in the hands of loyal employees also serves as a useful mechanism for fending off hostile takeovers.

Less Costly

In the wake of Enron, as will be discussed below, several proposals emerged to limit the holdings of company stock in 401(k) plans. The response from employers was immediate and negative; they wanted employees to hold company stock. "Putting firm caps on the amount of [company] stock in retirement accounts could well hurt — not help — retirement security by leading employers to cut that amount they contribute toward their employees' retirement," said James Delaplane, vice president for retirement policy at the American Benefits Council, which represents large employers (Schultz 1/14/02).

[4] 44 percent of all respondents thought that money market funds included stocks, and 43 percent thought they included bonds. Similarly, even though participants in the survey invested in an array of assets, 40 percent had no idea about future returns for stocks, bonds, or money market funds. Those who did respond had extremely optimistic projections for the next 20 years.

[5] This lower return also suggests that employees were not privy to any insider information.

In what sense are contributions in stock less costly than cash contributions? In terms of simple arithmetic, they have an identical impact on the wealth of the initial shareholders. If the firm buys stock on the open market to put into the plan, it reduces its cash holdings to the same extent as making a cash contribution. If the firm issues new stock, it does not have to deplete its cash and it does not have to show an expense that reduces profits. On the other hand, earnings per share will be lower because they have to be distributed over more shares. (Roughly one-third of plans buy shares on the open market, and the other two-thirds issue new stock (Benartzi 2001)). As a result, regardless of whether a 401(k) match is provided in cash or stock, it has an equal impact on the wealth of initial shareholders.

Although cash and stock are equal in theory, employers strongly prefer to make stock contributions to 401(k) plans. In their view, a dollar of cash is actually worth more than a dollar, since cash is costly to raise and often comes with strings attached. The transaction costs associated with issuing new stock or floating new debt are substantial. The alternative of borrowing from financial institutions is difficult because banks fluctuate in terms of their willingness to lend and generally impose loan agreement covenants containing performance requirements on the borrower. Companies that turn to venture capitalists for cash may have to surrender a significant share of the ownership of the firm. As a result of the costs and difficulties associated with raising cash, many companies are cash constrained and therefore prefer to make their 401(k) contributions in company stock.

Alignment of Employees' Interest

Another reason employers may prefer stock is a desire to align the interest of the employee with that of the company. Employers themselves often cite improving employee motivation as an important reason for providing company stock.[6] The notion is that tying employee income and wealth to company performance will increase productivity and performance by decreasing labor management conflicts and encouraging employee effort.

However, the evidence of the impact of employee ownership on productivity is not very robust. A review of 31 studies found a positive but weak relationship on the effect of employee ownership on employee attitudes and motivation (Kruse and Blasi 1997 and Kruse 2002).

Fend Off Hostile Bids

Although employers rarely mention putting shares in friendly hands as a major motivation for 401(k) investment in company stock, it has been an important consideration in some celebrated cases.[7] More generally, of the 1,000 companies that introduced or maintained plans with company stock during the 1980s, 102 reported that the plans were introduced or used in response to takeover bids (Blasi, Conte, and Kruse 1996).

Among large (Fortune 100) companies with company stock in defined contribution plans, employee holdings in company stock account for an average of 7 percent of outstanding shares — considerably more in some companies such as Ford, Lucent, Honeywell and others (see Table 4). Some question whether a holding of this size is a significant share for takeover purposes (Mitchell and Utkus 2002), yet the Securities and Exchange Commission classifies a 5-percent owner as a major shareholder (Blasi, Conte, and Kruse 1996). Moreover, experts say that most CEOs would consider a holding of this size to be significant for maintaining control.

Table 4: Employee Holdings of Company Stock as a Share of Total Company Stock (Fortune 100 Companies)

Company	Company stock in defined contribution plan as a percent of total stock
Highest	
Ford Motor	34.6%
Lucent Technologies	19.7
Honeywell International	13.6
McKesson HBOC, Inc.	12.0
Proctor & Gamble	10.4
Average	7.0
Lowest	
Wachovia Corporation	0.8
Dell Computer Corporation	0.6
PepsiCo, Inc.	0.6
J.P. Morgan & Co., Inc.	0.4
Wal-Mart Stores, Inc.	*

Source: Authors' calculations based on CRSP/COMPUSTAT (2001) and Institute of Management and Administration (2001).
*Note: Less than 0.1 percent.

[6] In a 1986 study for the U.S. General Accounting Office, 70 percent of employers cited improving productivity as a major motivation for forming an ESOP.

[7] For example, Polaroid created an ESOP in 1988 in order to prevent a takeover bid by Shamrock Holdings (Wentworth 1989).

Concerns about High Concentrations of Company Stock

The most obvious harm from over-investment of 401(k) plans in company stock is big losses when things go wrong at the firm. When companies hit bad times, workers generally lose their jobs and see their retirement savings devastated at the same time. Table 5 shows the extent of concentration in company stock at several large companies that saw their stock values plummet between March 2000 and the end of 2001.

Table 5: Concentrations in Company Stock at Companies that Have Experienced Large Recent Losses in Share Value

Company	Percentage change in stock price 3/00-12/01	Company stock as a percent of total pension assets
Polaroid	-99.6%	19%
Enron	-99.6	41
Global Crossing	-97.5	16
Weirton	-96.4	16
Providian Financial	-91.8	19
Kansas City Southern	-91.8	80
Lucent Technologies	-89.2	16
Owens Corning	-88.5	26
Montana Power	-88.0	25
Northern Telecom	-86.6	30
Corning	-86.0	32
ADC Telecom	-80.4	46

Source: Farrell (2002).

Although bankruptcies of firms with large pension stakes in company stock make the headlines, the more fundamental point is that concentrating investments in company stock is generally not a good idea. The exception is if employees are already accumulating sufficient resources for retirement through other means, such as personal assets or traditional defined benefit pension plans. A high concentration of company stock in retirement accounts exposes participants to firm-specific risk that they could get rid of by investing in a diversified portfolio. Usually higher risk is associated with higher returns; that is why large company stocks yielded an average annual return of 11 percent over the period 1926-2000 compared to 3.8 percent for U.S. Treasury bills (Ibbotson Associates 2001). But investing in one stock rather than in a diversified portfolio creates more risk without providing any increase in expected returns.

A recent study attempts to measure the cost of lost diversification (Meulbroek 2002). The study reports that a well-diversified portfolio has a volatility of 23 percent, while the average volatility of a single stock portfolio from companies listed on the New York Stock Exchange is 45 percent, roughly twice as great. The volatility of a single stock on the NASDAQ is 81 percent and for internet-based firms, 117 percent. The high volatility of a single stock relative to a diversified portfolio means that for a worker who cannot diversify, the stock is worth considerably less than its market value. Thus, even in the absence of financial catastrophe, over-investment in company stock is inefficient.

Current Reform Efforts

The idea of changing federal laws to improve diversification in pension plans is not new. The Tax Reform Act of 1986 mandated that employees covered by an ESOP who are 55 and have completed 10 years of service must be given the option of beginning to transfer their company stock to other investment options. Another flurry of diversification activity occurred in 1997 in the wake of the bankruptcy of the Fort Worth, Texas floor-covering chain Color Tile.[8]

In response to the collapse of Enron, the Bush Administration has proposed some changes, and legislators have introduced several bills to help limit employee losses from investment in company stock.[9] The common themes are: 1) allow employees to sell employer contributions in company stock; and 2) provide employees with more information. The most controversial issue is whether to directly limit the amount of company stock that employees can hold in their 401(k) plans.

[8] Color Tile's case prompted a review by the Department of Labor's Pension and Welfare Benefits Advisory Council (PWBA 1997) of the holding of employer assets in defined contribution plans. In addition, for a very limited number of 401(k) plans, policymakers enacted a 10-percent cap on investments in company stock.

[9] One bill — H.R. 3762 — was passed by the House of Representatives on April 11, 2002 by a vote of 255-163. For a detailed summary of current bills, see Purcell (2002).

Allow Employees to Diversify Out of Company Stock

While ESOPs have some mandatory diversification requirements, 401(k) plans traditionally have had none.[10] Most employers allow immediate sale of elective purchases, but permit diversification of employer-directed company stock only after the employee has satisfied some age and service requirement. To encourage diversification, the Administration proposed to allow 401(k) participants to sell company stock acquired from an employer match after 3 years (the maximum vesting period).[11] Every major legislative proposal includes a similar provision. This does not appear to be a controversial issue; allowing employees to diversify will protect employees who want to sell and will provide a valuable option in times of distress.

Improve Information Flowing to Employees

Although there is universal agreement that employees need more and better information about their investment options, how best to provide that information is slightly more controversial than it might seem. Starting with the most harmonious provisions, almost every bill wants employers to provide employees with regular information about their investment holdings and to inform them about the risks of concentrating investments in company stock. Where the harmony breaks down is the question of making investment "advice" available to participants.

Currently, ERISA prevents plan sponsors and investment companies from giving "advice" to plan participants, because employers fear that they will be liable as fiduciaries if employees buy assets that perform poorly. Some policymakers have proposed addressing this concern by essentially protecting employers from being designated fiduciaries if they provide access to investment advisors. Proponents of this approach differ, however, on how best to handle potential conflicts of interest on the part of investment firms. Some legislators would prohibit investment advisors from recommending their own companies' funds while others would simply require the advisors to disclose that the companies would make money from any investments in their funds.

Directly Limit Employee Holdings of Company Stock

As discussed above, ERISA limits the amount of company stock in a defined benefit plan to 10 percent, but exempts most defined contribution plans from this provision. Immediately after the collapse of Enron, Senators Boxer (D-CA) and Corzine (D-NJ) submitted legislation (S. 1838) that would place a 20-percent cap on employee holdings of company stock in 401(k) plans. A cap is a direct way to prevent excessive holdings of company stock, but it may force employees to reallocate their portfolios merely because of relatively rapid appreciation of the firm's stock. Perhaps to avoid this problem, the Senate Health, Education, Labor, and Pensions Committee took a somewhat different tack to accomplish the same goal. The legislation (S. 1992) would require plan sponsors to select one of two options. Employers could: 1) make their matching contributions in company stock; or 2) include company stock as an investment option for employee contributions; employers could not do both unless they also sponsored a traditional defined benefit pension.

The Administration and many in Congress oppose placing any limitations on employee holdings of company stock in their 401(k) plans. Their view is that in many cases employees make the decision to purchase on their own, and the government should not interfere with their freedom. Many are also concerned that if employer contributions were restricted in any way, employers would cut back on the match. Since studies show that the presence of an employee match has a positive effect on participation and contributions (Munnell, Sundén, and Taylor 2000), changes that reduce the employer match could harm retirement income. The argument in favor of limits on company stock is that pension plans are tax-subsidized retirement vehicles, and individuals should not be permitted to use them for imprudent investments.

[10] Companies that opt for the "safe harbor" provision offered in Section 404(c) of ERISA are required to diversify their 401(k) plans. Under this rule, ERISA fiduciary liability does not apply to investment decisions made by plan participants if they control the investments, including investment in company stock, in their individual account. In order for the safe harbor to apply, the plan must provide at least three diversified investment options, allow participants to select options at least every three months, provide participants with detailed information about the options, and make sure that employer stock transactions are free from employer influence. As soon as employers direct the match into company stock, they are no longer eligible for 404(c) protection.

[11] Most employers already allow employees to immediately sell company stock acquired through the employees' own 401(k) contributions.

Conclusion

Despite the general guidance from financial professionals about the importance of diversification in investment decisions, over 8 million 401(k) participants hold more than 20 percent of their 401(k) assets in company stock (VanDerhei 2002). The evidence suggests that most participants are not sophisticated investors; they underestimate the risk of investing in company stock and tend to buy what they know. The problem is exacerbated when the employer matches in company stock because it not only boosts holdings directly but also encourages employees to contribute more on their own. Employers strongly value the opportunity to match in stock rather than cash, because it allows them to hold on to their valuable cash reserves, and they believe that it helps align the interest of the employee with that of the firm.

The challenge is to help promote well-diversified portfolios without damaging the usefulness of 401(k) plans. A consensus has emerged among policymakers that, at a minimum, employees should be able to diversify more easily. That is, they should be able to sell company stock as soon as they are vested. The other area of general agreement is that employees should be well informed that they are taking on excessive risk in concentrating their 401(k) assets in a single stock. The main area of disagreement is whether to directly limit the purchases or holdings of company stock. Whatever decisions are made, employees will benefit from policies that encourage diversification without reducing the willingness and capacity of employers to offer attractive 401(k) plans.

References

Benartzi, Shlomo. 2001. "Excessive Extrapolation and the Allocation of 401(k) Accounts to Company Stock." *Journal of Finance* LVI (October): 1747-1764.

Blasi, Joseph, Michael Conte, and Douglas Kruse. 1996. "Employee Stock Ownership and Corporate Performance among Public Companies." *Industrial and Labor Relations Review* 50 (1): 60-79.

CRSP/COMPUSTAT Merged Databases. 2001. Chicago, IL: Center for Research in Security Prices.

Farrell, Chris. 2002. "The Problem with Pension Plans." *Business Week Online*. (www.businessweek.com/bwdaily/dnflash/jan2002/nf20020111_3044.htm [January 11, 2002]).

Fidelity Investments. 2002. *Building Futures: Volume III, Company Stock and 401(k) Plans: A Supplemental Report*.

Hewitt Associates. 2001. *Survey Findings: Trends and Experience in 401(k) Plans 2001*.

Holden, Sarah and Jack VanDerhei. 2001. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2000." *EBRI Issue Brief 239* (November). Washington, DC: Employee Benefits Research Institute.

Ibbotson Associates. 2001. *Stocks, Bonds, Bills and Inflation 2001 Yearbook*.

Institute of Management and Administration. 2001. *DC Plan Investing* (December 11).

John Hancock Financial Services. 2001. *Insight into Participant Investment Knowledge and Behavior,* Seventh Annual Defined Contribution Plan Survey.

Kruse, Douglas. 2002. "Research Evidence on Prevalence and Effects of Employee Ownership." Testimony for the Subcommittee on Employer-Employee Relations, Committee on Education and the Workforce, U.S. House of Representatives (February 13).

Kruse, Douglas and Joseph Blasi. 1997. "Employee Ownership, Employee Attitudes, and Firm Performance: A Review of the Evidence." In *Human Resources Management Handbook, Part 1*, edited by David Lewin, Daniel J.B. Mitchell, and Mahmood A. Zaidi. JAI Press.

Langbein, John H. 2000. "Reforming ERISA Investment Law." Testimony for the Subcommittee on Employer-Employee Relations, Committee on Education and the Workforce, U.S. House of Representatives (February 15).

Mitchell, Olivia and Stephen P. Utkus. 2002. "Company Stock and Retirement Plan Diversification." Working Paper 2002-4 (Philadelphia, PA: Pension Research Council).

Meulbroek, Lisa. 2002. "Company Stocks in Pension Plans: How Costly Is It?" Working Paper (Cambridge, MA: Harvard Business School).

Munnell, Alicia H., Annika Sundén, and Catherine Taylor. 2000. "What Determines 401(k) Participation and Contributions?" Working Paper 2000-12 (Chestnut Hill, MA: Center for Retirement Research at Boston College).

Profit Sharing/401(k) Council of America. 2001. *44th Annual Survey of Profit Sharing and 401(k) Plans*.

Purcell, Patrick J. 2002. "Employer Stock in Retirement Plans: Investment Risk and Retirement Security." *CRS Report for Congress* (June). Washington, DC: Congressional Research Service.

PWBA Advisory Council Working Group Reports for 1997. 1997. Advisory Council on Employee Welfare and Pension Benefits Plans. *Report of the Working Group on Employer Assets in ERISA-Employer-Sponsored Plans*. Final Report of November 13, 1997.

Schultz, Ellen E. 2002. "Should Pension Law Do More to Protect Retirement Savings?" *Wall Street Journal* (January 14).

Schultz, Ellen E. and Theo Francis. 2001. "Fair Shares? Why Company Stock Is a Burden for Many — And Less So for a Few." *Wall Street Journal* (November 27): A1.

U.S. General Accounting Office. 1986. *Employee Stock Ownership Plans: Benefits and Costs of ESOP Tax Incentives for Broadening Stock Ownership*. GAO/PEMD-87-8.

VanDerhei, Jack. 2002. "The Role of Company Stock in 401(k) Plans." Testimony for the Subcommittee on Employer-Employee Relations, Committee on Education and the Workforce, U.S. House of Representatives (February 13).

Wentworth, Richard L. 1989. "ESOP Gains as an Anti-Takeover Defense." *The Christian Science Monitor* (January 18).

All of our publications are available on our website:

www.bc.edu/crr

The research reported herein was supported, in part, by the Center for Retirement Research at Boston College pursuant to a grant from the U.S. Social Security Administration funded as part of the Retirement Research Consortium. The opinions and conclusions are solely those of the authors and should not be construed as representing the opinions or policy of the Social Security Administration or any agency of the Federal Government, or the Center for Retirement Research at Boston College.

CENTER FOR
RETIREMENT
RESEARCH
AT BOSTON COLLEGE

About the Center

The Center for Retirement Research at Boston College, part of a consortium that includes a parallel center at the University of Michigan, was established in 1998 through a 5-year $5.25 million grant from the Social Security Administration. The goals of the Center are to promote research on retirement issues, to transmit new findings to the policy community and the public, to help train new scholars, and to broaden access to valuable data sources. Through these initiatives, the Center hopes to forge a strong link between the academic and policy communities around an issue of critical importance to the nation's future.

Affiliated Institutions

Massachusetts Institute of Technology
Syracuse University
The Brookings Institution
National Academy of Social Insurance
Urban Institute

Contact Information

Center for Retirement Research
Boston College
Fulton Hall 550
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-1750
E-mail: crr@bc.edu
Website: http://www.bc.edu/crr