

Robbing Tomorrow to Pay for Today

Testimony before the U.S. Senate Special Committee on Aging at the hearing on
protecting and strengthening 401(k) retirement savings

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Introduction and Summary

Thank you very much, Chairman Kohl, Ranking Member Smith and members of the committee for inviting me to speak to you this morning.

My testimony will focus on trends in loans from 401(k) plans and the reasons for these loans over time.

Imagine that you or someone in your family who relied on you for financial help were faced with unexpected medical bills that you could not afford with your current income. Luckily, you have managed to save a nest egg for retirement through your 401(k) plan, the most common defined-contribution retirement savings plan in the United States today, and you can simply borrow against that to keep the bill collectors at bay. Since the money is yours, there is no approval. You may borrow up to half of your retirement savings with no penalty so long as you pay it back within 5 years. Even better, the interest rate on these borrowed funds is lower than those on many other loans.

However, while the money is out of your retirement account you are not receiving an investment return. You are also paying yourself a below market rate of interest, which means that as a lender to yourself you are not being paid in full. And should you fail to pay the loan back you will have to pay taxes on the monies and pay a 10 percent penalty on top of that. Finally, the interest payments you are paying yourself are helping to grow your retirement savings, but you have paid them in after-tax dollars, and will have to pay taxes on that “gain” again when you retire and receive money from the account.

Given the significant downsides to 401(k)-type loans, why do people take them? Families take these loans because they are either uninsured or underinsured for the risks they face. Over the past few years, families looked for new ways to bridge the gap between slow income growth and rapidly rising prices, especially for houses, but also for food, energy, and health care. This search more often than not led them to household credit, but as families amassed ever-larger amounts of household debt they sometimes also sought out additional financial resources, such as their retirement plans.

Now, as the housing crisis grips the country, more and more individuals are tapping their 401(k)s. Most defined-contribution (DC) plans allow individuals to borrow from their 401(k)s. At the same time, these plans have become more widespread.¹ The result is that families leverage their future retirement security to ease their present financial insecurity.

To reduce the likelihood of workers leveraging their retirement to cover current catastrophes, policymakers must reduce the need for people to borrow. Policy solutions will require substantial improvements to income growth for America’s families, and a commitment to providing health and unemployment insurance to citizens who experience unexpected health expenditures and job loss. To understand the need for such policy actions, this report considers the evidence on loans drawn from DC plans from 1989 to 2004, the last year for which complete data are available. The data show the following.

- Even with a fairly modest loan amount of \$5,000 in 2008 dollars, a worker's retirement savings could be substantially reduced. For instance, a 401(k) plan participant who takes a loan to smooth over an economic rough patch, and makes only the loan payments, reduces their total retirement savings between 13 percent and 22 percent.
- Loans from DC plans have risen sharply. Over a period of 15 years, loans against retirement savings accounts increased almost fivefold in inflation-adjusted terms, to \$31 billion in 2004, up from \$6 billion in 1989—an increase of almost 400 percent. This reflects in large part the fact that many more people save for their retirement with defined-contribution plans and thus have access to these loans.
- Despite beneficial interest rates, loans from DC plans add to the overall debt burden and do not seem to substitute for other forms of debt. 401(k) plan participants who borrowed from their DC plans had median debt payments relative to income equal to 22.5 percent after 1995, while those who did not borrow paid only 18.0 percent. This difference in debt payments relative to income, 4.5 percentage points, had grown from 0.6 percentage points between 1989 and 1995.
- There have been important changes by demographic characteristics. Over the period under examination, borrowers from their 401(k)s were more equal by race and ethnicity. Loans among white 401(k) plan participants have become relatively more likely than among their African-American or Hispanic counterparts. Also, families with DC loans have gotten younger and have become more concentrated among families with high school degrees.
- The evidence shows that middle-class families in particular rely on their retirement savings accounts to provide them with easily accessible loans. This is particularly true when families buy a home, experience a spell of unemployment, and are burdened by bad health.
- There is no link between loans from DC plans and conspicuous consumption. If anything, families which exhibit a positive attitude toward borrowing for conspicuous consumption are underrepresented among families with loans from DC plans that were used for the purchase of goods and services.

The data point the way for current trends. As the economy slows, people are losing their jobs, and wage gains are falling behind sharply higher prices for energy, health care, transportation, and food. Families need to find ways to smooth themselves over the current rough patch even more so than in 2004, the endpoint of our analysis of the available data. With other venues to borrow money, particularly home equity lines, closed off due to lower house prices, tighter credit standards, and slower income growth, families are turning increasingly to the easily accessible loans from their 401(k) plans. The data through 2004 is a harbinger of the erosion in retirement security to come as families are economically squeezed from all sides.

The Basics: Loans from 401(k)-Type Plans

Over time, more people have DC plans and more people with DC plans can borrow from their DC plans. Specifically, among families with 401(k) plan participants between the ages of 25 and 64, the share with a DC plan increased to 39.7 percent in 2004 from 25.2 percent in 1989. During the same period, the share of families with a DC plan who could borrow from their DC plan rose to 72.2 percent from 60.5 percent.^{2,3}

These trends show that an ever-growing share of families had access to DC loans, but there are good reasons to believe that the number of people with such loans has increased. In fact, previous researchers have found some indications for growth of DC loans. For instance, Annika Sunden and Brian Surette found in 2000 that the share of families that have a DC loan outstanding rose to 5.3 percent in 1998 from 2.1 percent in 1992.⁴ More recently, the Employee Benefit Research Institute reported that an average of 18 percent of people with a 401(k) plan had a loan outstanding in 2006, compared to 19 percent in 2005, 18 percent in 2000 and in 1996.⁵ Because the share of people with a 401(k) plan has also risen at the same time, more people and a greater share of the entire population had such loans over this 10-year period.

One of the reasons for the growth of people with these loans is that a loan from a 401(k) is easy and convenient for the borrower. The borrower acts like a bank to himself or herself, albeit within some limits.⁶ People with a 401(k)-type plan can borrow \$50,000 or one half of the vested balance from the account, whichever is lower. Any loan has to be repaid within 5 years or less, except for loans that have been taken out for the first-time purchase of a home and can be repaid over a period of up to 15 years.

The interest rates on these loans are generally very favorable. For instance, in 1996, it was “found that about 70 percent of the 401(k) plans that allow[ed] borrowing charge[d] an interest rate equal or less than the prime rate plus one percentage point, while less than 10 percent charge[d] and interest rate equal to the local bank’s lending rate.”⁷ The repayment of the loan is not tax deductible, though, and neither are the interest payments unless the loan is secured by the primary residence.

Borrowers can incur penalties if they do not repay the loan to their 401(k)-type plan. Borrowers may leave a job before the final payments are due or they fail to make the agreed upon payments during the term of the loan. If this happens, the outstanding loan amount is considered a taxable distribution from the 401(k)-type plan. In particular, if the borrower is less than 59-and-one-half years of age, they will have to pay income tax on the outstanding loan amount plus an additional 10 percent as excise tax. If they are older than 59 and one-half, they are no longer subject to the excise tax, but still have to pay the income tax.

Over time, the U.S. Internal Revenue Service has clarified some rules, especially with respect to the timing of loan repayments. The IRS clarified some of the rules governing loans from 401(k) plans. Specifically, employers are permitted to give employees a grace period before the outstanding loan balance becomes a taxable income to the employee.

This grace period may not extend beyond the last day of the calendar quarter following the quarter during which the last payment was due.

Also, employers can increase the required installments to repay the loan according to the original schedule after employees return from leaves of absence. In addition, the new rules also clarify how much of the original loan is considered taxable when more than the maximum amount is borrowed. Furthermore, having more than two loans a year is considered a distribution subject to income taxes and a 10 percent excise tax. For those in military service, payments must resume after the end of the service, and the loan must be paid off by the end of its original term plus the period of military service. All of these changes became effective for loans made on or after January 01, 2004.⁸

Loans from Retirement Savings Plans Can Substantially Reduce Retirement Income

The basics of borrowing from a 401(k) plan highlight the dichotomous nature of loans from one's own retirement savings accounts. On the one hand, such loans are easily accessible and thus can reduce financial insecurities. On the other hand, these loans can also exacerbate current and future financial insecurity. They carry the risk of substantial tax penalties if the borrower fails to repay the loan in time due to job loss or other unforeseen circumstances. And repaying such a loan may mean that a worker is saving less for retirement than they otherwise would have, which can mean less retirement income in the future.

We calculate a few hypothetical examples to simulate the reduction in retirement savings that could come about as a result of a worker taking out a pension loan to the amount of \$5,000 in 2008 dollars.⁹ How much a 401(k) plan participant loses in terms of retirement savings, if anything, from taking out a loan against retirement savings depends on a number of factors, specifically:

- The interest rate charged for the loan.
- The interest rate earned on savings.
- Whether the borrower keeps up with contributions to the retirement savings plan in addition to repaying the loan.
- When the loan is taken out.

If the interest rate on the loan is less than the rate of return on the DC retirement savings plan, then the worker loses money because lending to oneself is less profitable than investing in stocks and bonds. But if the worker continues to make contributions to the 401(k) plan, then they will more quickly fill the hole that was created by taking out the loan. Finally, if a worker takes out a DC loan toward the end of a career, then the 401(k) plan has had more years to build up retirement savings and fewer years of compound interest to lose on the loan amount that is taken out.

We generate a range of simulations to illustrate these aspects. First, we allow the interest rate on the loan to vary, equaling 7.8 percent, 7.3 percent, or 8.3 percent. Over the past 10 years—from 1997 to 2007—the prime rate, to which interest rates on DC loans are often

tied, has averaged 6.8 percent.¹⁰ Thus, our interest rate assumptions reflect an implicit assumption that interest rates on DC loans are equal to prime plus 1 percent.

Second, we assume that the loan is taken out after 5 years, 10 years, or 15 years. And third, we model the outcomes when either a worker makes or foregoes additional contributions. For the case of additional contributions, we assume that the worker makes only the loan payments, or makes the same amount of payments that would have been made if there hadn't been a loan—whichever is larger—or makes the loan payments and continues to contribute the original saving amount.

The simulations illustrate the basic facts about borrowing from one's own DC retirement savings accounts. In particular, lower loan interest rates mean larger losses, and later start dates of a loan translate into smaller losses, as do additional contributions.

Even with a fairly modest loan amount of \$5,000 in 2008 dollars, a worker's retirement savings could be substantially reduced. For instance, if the worker only makes the loan payments—which could be a reasonable assumption if the worker took out the loan to smooth over an economic rough patch—then total retirement savings are reduced between 1 percent and 22 percent (Table 1). The exact reduction depends on the loan interest rate, on the timing of the loan, and the level of additional contributions made outside of the loan repayment. Lower interest rates, earlier loans, and fewer additional contributions reduce retirement savings more than higher loan interest rates, later loans, and larger additional contributions.¹¹

It is important to realize, though, that simulation scenarios that assume large additional contributions are probably not very realistic. As our analysis further below shows, many families take out loans because demands on their incomes have increased due to a spell of unemployment, bad health, or the purchase of a home. It thus seems unrealistic to assume that a large share of families with DC loans will continue to make their original contributions while also repaying their DC loans.

Table 1
Losses of Retirement Savings from Borrowing from a Retirement Savings Account

	Loan taken after 5 years		Loan taken after 10 years		Loan taken after 15 years	
	Account	Percent of	Account	Percent of	Account	Percent of
	balance in	no-loan	balance in	no-loan	balance in	no-loan
	year 35	balance	year 35	balance	year 35	balance
No loan	835,458					
Make loan payments						
7.3 percent loan	651,997	78.0	692,886	82.9	724,632	86.7
7.8 percent loan	653,020	78.2	693,642	83.0	725,191	86.8
8.3 percent loan	654,048	78.3	694,402	83.1	725,754	86.9
Make the larger of either loan payments or contributions without loans						
7.3 percent loan	703,921	84.3	734,893	88.0	756,067	90.5
7.8 percent loan	704,385	84.3	735,236	88.0	756,288	90.5
8.3 percent loan	704,852	84.4	735,582	88.0	756,510	90.6
Continue to make contributions and repay the loan						
7.3 percent loan	831,543	99.5	832,563	99.7	833,318	99.7
7.8 percent loan	832,565	99.7	833,319	99.7	833,877	99.8
8.3 percent loan	833,594	99.8	834,080	99.8	834,439	99.9

Notes: Authors' calculations. See text for details on simulation and their assumptions. All account balances are in dollars. Ratios to no-loan balance are in percent. Dollar amounts are not adjusted for inflation. Nominal rate of return is 9.2 percent.

Workers who borrow from their own DC retirement savings may not have other options as they may encounter hard economic times. The numbers, though, make it clear that more financial security today is traded off against substantially less economic security in the future.

This is especially troublesome since many workers with DC plans are already at risk of substantially lower income in retirement. Researchers at the Center for Retirement Research at Boston College, for instance, calculate that 49 percent of early baby boomers born between 1946 and 1954 who also have a DC plan are at risk of not being able to maintain their standard of living in retirement. For late boomers, born between 1955 and 1964, the share of families at risk increases to 52 percent.¹² Thus, DC loans have serious ramifications for retirement income security since DC plans have increasingly become the only retirement savings plan for many workers.¹³

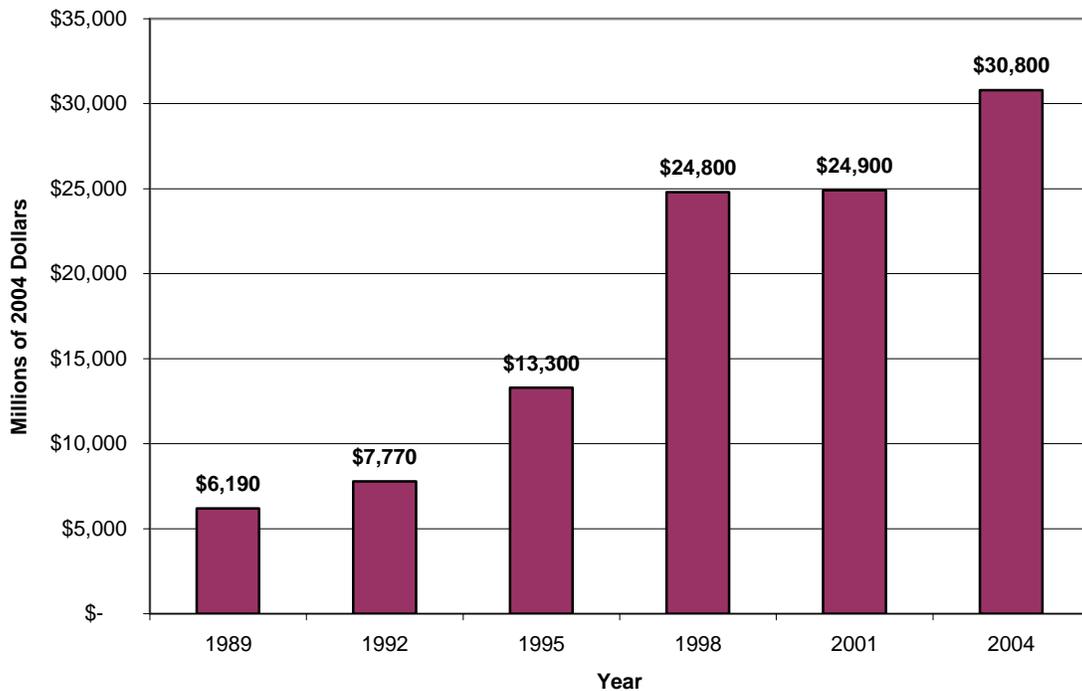
Loans from Retirement Savings Accounts Are Up Sharply, Contributing to Families' Financial Squeeze

Borrowing from one's own DC account is comparatively easy. As long as a DC plan permits it, there are only a few restrictions and, more importantly, there is only a limited

loan application process involved. A family with one or more 401(k) plan participants may thus turn to borrowing from its own retirement account when getting a loan from a bank is impossible or too expensive to do.

This may explain the growth of the total amount of loans outstanding against retirement accounts over time (Figure 1). Over a period of 15 years, loans against DC retirement savings accounts increased almost fivefold in inflation-adjusted terms, to \$31 billion in 2004, up from \$6 billion in 1989—an increase of almost 400 percent.

Total 401(k) Loans, In 2004 Dollars



Source: Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG. All figures are in millions of dollars. Dollar figures are adjusted for inflation using the CPI-U-RS.

This upward trend reflects in part larger loan amounts, at least after 1995. The inflation-adjusted amount of loans for the typical (median) family rose from \$2,462 in 1995 to \$4,000 in 2004, after declining in the preceding years (Table 2).¹⁴ Similarly, the average loan amount grew by 61.3 percent from \$4,912 in 1995 to \$7,932 in 2004. At a time when other forms of consumer loans, particularly mortgages and home equity lines, became more readily available, families also sharply ramped up their borrowing from their retirement accounts. From 2001 to 2004 alone, the median loan amount increased by 25.2 percent and the average amount rose by 12.6 percent.

It is critical to keep in mind that the growth in outstanding loans reflects many more people with a DC loan over time. In particular, an increasing share of families have a DC plan and more people can borrow from their DC plans.¹⁵

Table 2
Loan Amounts for Families with Loans from Their DC Plans

Year	1989	1992	1995	1998	2001	2004
Median loan amount	4,398	2,636	2,462	3,478	3,195	4,000
Average loan amount	8,332	5,002	4,917	6,093	7,046	7,932

Source: In all instances, the demographic characteristics refer to the head of household. Inflation adjustments are done using the Bureau of Labor Statistics' CPI-U-RS. Notes: All amounts are in 2004 dollars. Only data for families with loans from their DC plans are considered. Only families between the ages of 25 and 64 are included.

Given this sharp increase in loans from DC plans, the immediate question arises: If families simply substituted loans from DC plans for more costly loans, then families with loans from DC plans should have lower debt payments relative to income than their counterparts.

This is clearly not the case. Families who had DC plans and who borrowed from these accounts had median debt payments relative to income equal to 22.5 percent after 1995, while families who did not borrow paid only 18.0 percent. Interestingly, the difference in debt payments relative to income between families with loans from DC accounts and those without loans grew from 0.6 percentage points in the early years to 4.5 percentage points in the later years (Table 3). Borrowing from DC plans thus added to the overall debt burden of families during the years, when other household debt also increased.

Table 3
Median Debt Payments Relative to Income, by Loans from DC Plans

	Families with loans from DC plans	Families without loans from DC plans
Before 1998	18.0	16.6
After 1995	22.5	17.2

Source: Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG. Notes: All figures are in percent. Only data for families with DC plans are considered. Only families between the ages of 25 and 64 are included. In all instances, the demographic characteristics refer to the head of household.

More White Families, Younger Families, and Families with a High School Education Borrow from Their DC Plans

We determine whether a connection between demographic factors and loans from DC plans exists by examining two measures. First, we consider the distribution of family demographics for families with and without DC loans. We then calculate the ratio between the two distributions. A ratio greater than one indicates that families with particular demographic characteristics are overrepresented among families with loans from DC plans. A ratio of less than one indicates that a group is underrepresented.

Second, we consider the likelihood of borrowing from a retirement savings plan among families with specific demographic characteristics. In this way, we can gauge if families with certain characteristics are more or less likely than their counterparts to borrow from their DC plans, given that they have a DC plan.

The data show three interesting changes over time. First, African Americans, Hispanics, and other racial groups used to be substantially more likely to have loans from their DC plans than white families. After 1995, however, African-American families were the only families to be overrepresented in having a DC loan. In general, the chance of having a loan has become more equal by race and ethnicity after 1995.

Second, families with loans from their DC plans have become younger. Prior to 1998 the largest overrepresentation with respect to age occurred for families between the ages of 45 and 54. After 1995, the largest overrepresentation occurred for families between the ages of 35 and 33. Specifically, there were 17.9 percent more families in this age range among families with DC loans than among families without such loans. Also, once families in this age range had a DC plan, they had a probability of 13.8 percent of borrowing from it, higher than for any other age group, after 1995.

Third, families with DC loans have become more concentrated among families with high school degrees. After 1995, the largest overrepresentation occurred among families with high school degrees, while prior to 1998, all families with less than a college degree were about equally overrepresented among families with DC loans. See the table below for a complete breakdown of all three of our findings.

Table 4
Demographic Characteristics and Pension Loans

	1989-1995				1998-2004			
	Share among families with loans	Share among families without loans	Ratio of families with loans to those without loans	Share of families with pension loan	Share among families with loans	Share among families without loans	Ratio of families with loans to those without loans	Share of families with pension loan
Race/Ethnicity								
White	74.9	83.6	0.9	7.3	78.5	80.5	1.0	11.7
Black	14.4	8.5	1.7	13.1	13.1	10.7	1.2	14.3
Hispanic	6.4	4.5	1.4	11.1	5.0	5.1	1.0	11.8
Other	4.3	3.5	1.3	10.0	3.3	3.8	0.9	10.8
Age								
25-34	24.1	27.6	.9	7.2	19.8	22.6	0.9	10.6
35-44	37.2	35.0	1.1	8.6	39.0	33.0	1.2	13.8
45-54	30.7	25.3	1.2	9.7	29.8	28.3	1.1	12.5
55-64	8.1	12.2	.7	5.5	11.4	16.1	0.7	8.8
Education								
No HS or GED	5.9	5.4	1.1	8.2	4.5	4.6	1.0	11.6
HS or GED	28.6	27.4	1.1	8.5	34.5	26.2	1.3	15.2
Some college	22.8	20.3	1.1	9.0	20.8	18.7	1.1	13.1
College	43.1	46.9	0.9	7.5	40.2	50.5	0.8	9.8

Source: Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG.
Notes: All figures (other than ratio) are in percent. Only families between the ages of 25 and 64 are included. In all instances, the demographic characteristics refer to the head of household.

401(k) Loans Smooth Bumps in the Road and Make Home Purchases Easier

When we consider the evidence on why families may have taken out loans from their DC retirement savings accounts, we find that homeownership but also unemployment spells and health care issues likely contributed to the rise in debt. That is, families typically borrow from their DC plans because they need to, not out of conspicuous consumption.

The primary reason for loans that were taken out against balances in DC plans were the purchase of goods and services, including consumer durables, such as refrigerators, but also services, such as financial advice. As our figures show further below, families borrowed money largely to purchase these often necessary goods and services since they had no other way of paying for them. In fact, loans for goods and services rose to about 45.3 percent in 2004 from about 36 percent in 1998 and 2001 (Table 5).

This rise in loans for purchasing goods and services between 2001 and 2004 came at the expense of loans for home purchases, which may reflect that mortgages became more readily available during that period of time. The share of DC loans that were taken out for home purchases dropped to 13.4 percent in 2004 from 24.4 percent in 2001. Families likely had to rely less on the easy access to this particular form of debt because there was comparatively easy access to mortgages and home equity lines.

In comparison, education and medical loans grew after 2001, when prices for both higher education and medical care once again rose sharply.^{xvi} The increase in the share of loans for education and medical expenses rose by 4.8 percentage points between 2001 and 2004, from 6.7 percent in 2001 to 11.5 percent in 2004, thus compensating for approximately half of the decline in the share of loans for home purchases and improvements, data which is also reflected in the table below.

Table 5
Reasons for Loans from DC Retirement Savings Accounts

Loan Reason	1998	2001	2004
Home purchase	26.2	24.4	13.4
Home improvement	8.5	10.3	9.5
Vehicles	10.5	17.3	14.6
Goods and services	36.1	36.3	45.3
Investments and other real estate	2.7	5.0	5.7
Education, medical expenses and professional services	16.1	6.7	11.5

Source: In all instances, the demographic characteristics refer to the head of household. Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG. Notes: All notes are in percent. Similar information is not publicly available prior to 1998. Only data for families with loans from their DC plans are considered. Only families between the ages of 25 and 64 are included.

Primarily, though, people borrow from their DC plans to purchase goods and services. This could reflect a drop in income due to a job loss or additional demands on household income due to health care needs or the purchase of a home. These effects may not be fully captured in the loan categories discussed above. For instance, a family in which one or two family members are in bad health may pay for their medical bills out of their income, but they may have to borrow from their DC plans to cover other large expenditures. We thus try to capture the potential effect of unemployment, health status, income, and homeownership on the likelihood of having a loan from a DC plan.

The figures indicate that there is a link between most of these events and the probability of a DC pension plan loan. For instance, there were 63.1 percent more families with an unemployed family member among families with loans than among families without loans prior to 1998. In the later years, the difference rose to 163.2 percent. Also, unemployed families were much more likely than employed ones to have a loan prior to 1998. The opposite, though, is true after 1995.

This, combined with the previous fact that unemployed families are disproportionately represented among families with DC loans, indicates that families experiencing a spell of unemployment after 1995 also had a lot more access to DC retirement savings accounts. This may simply reflect the fact that unemployment became a more long-term and more middle-class phenomenon after 2000.^{xvii} Middle-class families tend to be more likely to have DC retirement savings accounts than lower-income ones, and thus have more ability to dip into their savings when they experience an unemployment spell. Consequently, unemployment tends to be associated with loans from DC plans, and it seems that unemployment has become more widespread among families with DC plans.

Having a family member in bad health also raises the likelihood of having a loan. Families with a family member in bad health were between 39.4 percent and 47.6 percent more likely than families in good health to have a loan after 1998, reflecting a growing difference by health status over time (Table 6). Also, families, with a member in bad health were more likely to borrow from their retirement savings accounts. After 1995, for example, roughly 16 percent of families with a family member in bad health had a loan, compared with only 11.0 percent for families in good health.

The figures by homeownership require a little more discussion because renters are actually somewhat disproportionately represented among families with loans. Once we look at homeowners and renters with DC retirement savings accounts, though, we see that homeowners are much more likely to borrow from their accounts. After 1995, 12.4 percent of homeowners borrowed from their retirement accounts, compared to 10.1 percent for renters. The table below details all of these trends.

Table 6
Economic Characteristics and Pension Loans

	1989-1995				1998-2004			
	Share among families with loans	Share among families without loans	Ratio of families with loans to those without loans	Share of families with pension loan	Share among families with loans	Share among families without loans	Ratio of families with loans to those without loans	Share of families with pension loan
Income								
Bottom Quintile	3.4	4.3	0.8	6.6	2.1	4.7	0.5	5.6
2nd Quintile	19.3	18.7	1.0	8.3	21.1	19.7	1.1	12.7
Middle Quintile	36.6	36.2	1.0	8.2	29.5	36.4	0.8	12.9
4th Quintile	36.9	34.9	1.1	8.5	35.5	35	1.0	12.1
Top Quintile	3.8	5.9	0.6	5.4	1.8	4.2	0.4	5.5
Housing Situation								
Renter	23.5	21.9	1.1	8.6	16.3	19.7	0.8	10.1
Owner	76.5	78.1	1.0	19.7	83.7	80.3	1.0	12.4
Employment								
Employed	83.0	81.1	1.0	8.3	82.9	82.2	1.0	12.0
Unemployed	2.0	1.2	1.7	12.7	2.0	0.8	2.5	4.7
Not in labor force	15.0	17.7	0.9	7.0	16.4	15.8	1.0	12.3
Health Status								
Missing	83.0	85.6	1.0	9.4	75.6	83.3	0.9	11.0
Poor Health								
1 person	13.0	12.1	1.1	10.7	20.9	14.2	1.5	16.7
2 people	3.1	2.3	1.4	13.3	3.5	2.5	1.4	15.9

Source: Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG.
Notes: All figures (other than ratio) are in percent. Only families between the ages of 25 and 64 are included. In all instances, the demographic characteristics refer to the head of household, except for employment and health status. A family is characterized as unemployment if the head of household, his or her spouse, or both are unemployed. The data indicate a family as having one person in bad health if the head of household or the spouse are in bad health.

The important question, though, is whether homeowners who borrowed from their DC plans face better or worse financial conditions. Specifically, we can imagine two situations when prospective homeowners dip into their retirement savings to buy a house. First, a DC loan may allow a family over a threshold down payment for a first home, or allow them in some other way to buy a home that they otherwise couldn't "afford," or perhaps permit them to buy their home on terms better than those prevalent in the market.

If the first case scenario is prevalent, we should find that homeowners with DC plans are generally more financially stretched than their counterparts without DC plans. This could manifest itself in less home equity, a greater share of adjustable-rate mortgages, higher mortgage payments relative to income, and lower home values relative to income. By comparison, if the second scenario is more prevalent, homeowners with loans from their DC plans should be financially more secure, at least with respect to their residential real estate assets.

We discover in our analysis that homeowners with DC loans tend to be in a more precarious financial situation than the ones without such loans. Homeowners with DC loans have less home equity, \$44,627, than homeowners without a DC loan, \$69,000—a telling difference of 54.5 percent—for the years 1998 to 2004. In fact, this difference has widened from 28.0 percent between 1989 and 1995.

Similar gaps, at least after 1995, exist for all other measures. Homeowners who borrow from their DC plan tend to have higher mortgage payments relative to income, own less home relative to income, and have a substantially higher probability of borrowing with an adjustable-rate mortgage compared to homeowners who do not have a loan from their DC plan. For example, the difference in the likelihood of having an adjustable-rate mortgage is 17.7 percent for homeowners with a loan from their DC plan compared to only 11.1 percent for homeowners without such a loan.

Homeowners with DC loans also tend to be in a financially more precarious situation than their counterparts. This suggests that a loan from a DC plan allows families who otherwise would not have been able to afford a home to purchase one, although this increased leverage comes at a cost. DC loans do not seem to be used to negotiate better financial terms, for example by offering a larger down payment. The table below details our findings.

Table 7
The Link between Loans from DC Plans and Homeowners' Finances

Variable	Time period	Family has a loan from their DC plan	Family has no loan from their DC plan
Median home equity (in 2004 dollars)	Before 1998	46,167	59,091
	After 1995	44,627	69,000
Median mortgage payment relative to income (in percent)	Before 1998	14.5	12.1
	After 1995	13.9	12.5
Median home value relative to income (in percent)	Before 1998	183.2	174.3
	After 1995	161.8	181.2
Share of homeowners with ARM (in percent)	After 1995	17.7	11.1

Source: In all instances, the demographic characteristics refer to the head of household. Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG. Notes: Only data for home owning families with a DC plan are considered. The figures change only marginally, when all home owning families are considered. Only families between the ages of 25 and 64 are included.

Finally, the link between income and DC retirement account loans is not as straightforward as one might assume. Generally speaking, families in the middle 60 percent of income distribution are disproportionately represented among families with pension loans. These families are also more likely to borrow from their retirement accounts, when they have one, compared to low-income and high-income families. That is, loans from retirement savings accounts are more a middle-class phenomenon than a low-income one (Table 6).

The evidence shows that middle-class families use their retirement savings to provide them with easily accessible loans. This is particularly true when families buy a home, experience a spell of unemployment, or are burdened by bad health.

Loans from DC Plans Not Linked to Conspicuous Consumption

Alternatively, families with DC pension plan loans (especially those used for goods and services, the largest reason for such loans) may be more prone to conspicuous consumption than other families. We consider a number of variables, which measure families' attitudes toward saving and debt.^{xviii}

We then see if they are systematically linked to the probability of having a loan outstanding that was used for goods and services, if they have a loan in general, and if so, how much they borrowed.

If anything, families that exhibit a propensity for debt and for borrowing to finance conspicuous consumption are underrepresented among families, who have loans outstanding that were used to purchase goods and services. Only 28.6 percent of families, for instance, with such loans between 1998 and 2004, are considered aggressive borrowers—the smallest group. In comparison, conservative borrowers made up 33.1 percent of families with loans against DC plans that were taken out to finance purchases of goods and services (Table 8).

In addition, 77.0 percent of families in this category did not think it was a good idea to borrow to finance a vacation, a fur coat, or jewelry, and only 23.1 percent did. Finally, families in this category are evenly split between savers and non-savers. There is no evidence that families exhibiting a positive attitude toward debt, particularly for conspicuous consumption, are the driving factor behind loans against DC plans that were borrowed to finance purchases of goods and services.

In addition, the amounts borrowed by families, who are less likely to save and show a greater acceptance of borrowing for conspicuous consumptions, tend to be smaller in absolute terms and relative to income than for other families. For instance, the median loan amount relative to income for aggressive borrowers was 4.2 percent, well below the relative outstanding loan amount of moderate and conservative borrowers. Similarly, families indicating that they are less likely to save and more prone to borrow have actually smaller outstanding loan amounts, both in absolute terms and relative to income (Table 8).

Another way of thinking about this is to consider if the general attitudes of those who had DC loans for goods and services differed from those who had DC loans for other purposes and from those who had no DC loans. The data suggest that those families taking out DC loans for goods and services were actually more careful borrowers than other families. In particular, only 28.6 percent of families with a DC loan for goods and services fall into the “aggressive borrower” category, as compared with 36.6 percent of families with DC loans for other purposes and 32.0 percent for families who had no DC loans.

What’s more, there is no difference among these three groups of families with respect to the proportion of families self-identified as conspicuous consumers. It is only with respect to families’ attitudes toward saving that there is a clear difference. Families with DC loans are less likely to be identified as savers, which may reflect their inability to save due to low income relative to their expenditures and not necessarily their desire to save.

There is thus no indication that loans from DC plans were primarily driven by a desire for conspicuous consumption, but rather they seem to reflect economic necessities (Table 9).

Table 8
Families with DC Loans for Goods and Services:
Personal Attitudes Toward Debt and Saving, 1998-2004

	Borrower Type			Conspicuous Consumption		Saver	
	Aggressive	Moderate	Conservative	Yes	No	No	Yes
Share among families (in percent)	28.6	38.3	33.1	23.1	77.0	49.1	50.9
Median loan amount (in 2004 dollars)	3,000	4,000	2,898	1,598	3,200	2,319	4,047
Ratio of median loan amount to income (in percent)	4.0	5.7	5.1	3.2	5.5	4.8	5.2

Source: Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG.
Notes: Aggressive borrowers believe it is a good idea to buy goods on an installment plan, moderates believe it is both good and bad, conservatives believe it is a bad idea. Conspicuous consumers believe it is okay to borrow for jewelry, furs, or vacation purchases. Only families who have DB loans and who stated that they used the loan to finance goods and services are included. Only families between the ages of 25 and 64 are included. In all instances, the demographic characteristics refer to the head of household.

Table 9
Comparison of Attitudes of Families with DC Loans for Goods and Services with Those Without

	Percentage of aggressive borrowers	Average conspicuous consumption score	Average saver score
Family has DC loan for goods and services	28.6	0.8	0.5
Family has DC loan, but not for goods and services	36.6	0.8	0.6
Family has no DC loan from their DC plan	32.0	0.8	0.7

Source: Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG. Notes: Aggressive borrowers believe it is a good idea to buy goods on an installment plan, moderates believe it is both good and bad, conservatives believe it is a bad idea. Conspicuous consumers believe it is okay to borrow for jewelry, furs, or vacation purchases. Only families who have DC loans and who stated that they used the loan to finance goods and services are included. Only families between the ages of 25 and 64 are included. In all instances, the demographic characteristics refer to the head of household.

No Change in Sight

The U.S. economy is currently experiencing a serious slowdown in terms of economic growth. And the labor market is responding in kind (after seven years of flat wage gains after adjusting for inflation) alongside tighter credit and less access to some forms of credit due to lower house prices. The available data indeed indicate that people are apparently increasing their DC loans in recent years. Specifically, a Transamerica Center for Retirement Studies survey showed an 11 percent increase in people with DC loans in 2007 over 2006.

In comparison, JP Morgan Chase & Co. analysts surveyed 350 DC plans nationwide and found a 7 percent increase in the second half of 2007.^{xxix} In addition, the giant fund manager Fidelity reported a small increase in loans in December 2007. Only Vanguard, another large fund manager, reported no change in outstanding DC loans.^{xxx} Also, DC loans at Great West Retirement Services, one of the largest retirement plan administrators, rose by almost 15 percent from 2006 to 2007.^{xxxi}

Another possibility is to look at hardship withdrawals, for which we do not have data from the Survey of Consumer Finances. There is again some indication that such withdrawals have risen in recent years. For example, Great West Retirement Services saw a 20 percent increase in hardship withdrawals in January 2007 compared to one year earlier.^{xxii} Fidelity also saw a 17 percent surge in withdrawals in 2007, with record numbers in December.^{xxiii}

Often DC loans are growing despite efforts by employers to discourage such loans. These efforts include limiting the number of loans or adding fees. For example, according to Hewitt Associates, a consulting firm, nearly 80 percent of plans charged loan-origination fees in 2007, up from 63 percent in 2001.^{xxiv}

DC loans primarily seem to be rising because demand for credit is growing amid less access to other forms of household debt due to tighter credit standards and lower house prices in the wake of the U.S. housing and global credit crises.^{xxv} For instance, in the Transamerica study, a survey of 2,000 full-time employees found that 29 percent of those who borrowed in 2007 took the loan to pay off debt, up from 27 percent in 2006. Also, since 2006 more than half of all 401(k) plans experienced an increase in loans and withdrawals in regions that have seen the highest increase in foreclosure rates, including the Midwest, South Atlantic, and Southwest.^{xxvi}

Conclusion

Over the past decade, households have often turned to household debt to cover the gap between rising household expenditures due to sharply higher prices and weak income growth. Loans from defined contribution retirement savings plans have provided easily accessible credit to fill this gap. Families often turn to these DC loans when facing unemployment, medical care costs, and greater expenditures due to homeownership.

Consequently, the existing evidence suggests that families may increase their borrowing from their DC loans again in the current economic slowdown. Slower income growth and rising unemployment occurred at the same time as still much higher prices, especially for energy, food, education, and health care. At the same time, access to other forms of credit, particularly mortgages, has decreased due to tighter credit standards and lower house prices.

Increased borrowing from DC loans, though, will lower retirement income security. Depending on how many loans are taken out, when the loan is borrowed, and how quickly it is repaid, a DC loan can reduce retirement income security, possibly by more than 20 percent.

The policy solution must be to reduce the need for people to borrow against their DC retirement savings accounts. Given that people borrow at least to some degree to cover the cost of an unemployment spell and for medical care, such policy approaches could encompass improved unemployment insurance benefits and greater health insurance coverage.

Appendix:

Tables

Table A1
Breakdown of Families with DC Plans and the Ability to Borrow from Them

Demographic characteristic	Share of families with DC plans		Share of families who can borrow from their DC plans	
	1989-1995	1998-2004	Before 1998	After 1995
Total	29.1	40.5	64.3	75.1
Race/Ethnicity				
White	32.4	44.1	64.5	74.6
Black	20.0	32.9	67.3	78.3
Hispanic	17.0	22.5	62.8	77.1
Other	22.7	39.6	56.2	73.6
Income				
Bottom quintile	5.5	8.8	57.6	59.2
2nd Quintile	21.7	31.2	59.9	65.6
Middle Quintile	37.0	52.2	60.6	76.0
4th Quintile	49.4	62.7	70.8	81.3
Top Quintile	47.9	53.3	68.1	77.2
Age				
25-34	27.7	38.3	66.7	72.5
35-44	33.2	45.5	61.8	78.9
45-54	33.2	41.8	68.9	74.4
55-64	19.0	33.3	56.4	71.8
Education				
No high school/GED	10.4	15.8	53.9	66.6
High school/GED	25.2	35.9	63.1	73.7
Some college	32.7	40.1	64.3	74.8
College	38.9	51.8	66.3	76.7
Housing situation				
Renter	17.7	24.2	61.9	70.0
Owner	35.5	48.2	65.0	76.3
Employment				
Employed	36.0	47.9	64.7	75.7
Unemployed	7.3	16.8	53.0	63.7
Not in labor force	17.3	24.7	63.3	72.9
Health status				
None	35.1	44.8	67.3	75.9
1 person in bad health	18.8	29.0	56.4	72.5
2 people in bad health	15.8	22.5	61.6	65.1

Notes: All figures are in percent. Only families between the ages of 25 and 64 are included. In all instances, the demographic characteristics refer to the head of household, except for unemployment and health status. A family is characterized as unemployed if the head of household, his or her spouse, or both are unemployed. The data indicate a family as having one person in bad health if the head of household or the spouse are in bad health. Authors' calculations based on various years of Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG.

Survey questions

The data set that we are using, the Federal Reserve's Survey of Consumer Finances, includes several questions regarding families' attitudes toward saving and debt. We use three of them here.

First, we use a general question that addresses a family's attitude towards debt.^{xxvii} In particular, the survey asks the following question:

"In general, do you think it is a good idea or a bad idea for people to buy things on the installment plan?"

The SCF allows for three possible answers:

- Good idea
- Good in some ways, bad in others
- Bad idea

We consequently group respondents, with a DC plan, into these three categories and see if families who think that borrowing on an installment plan is a good idea are more likely to have a loan outstanding and have larger amounts of loans outstanding than families who do not think that this is a good idea. Families who answer that it is a good idea are considered aggressive borrowers, those who chose the second answers are labeled moderate borrowers, and those that indicated that they thought it was a bad idea are termed conservative borrowers.

Second, we use a few specific follow-up questions regarding people's attitude toward debt. In particular, the SCF asks if it is okay to borrow for certain consumption items. Since our goal here is to find a measure that captures a family's attitude toward conspicuous consumption, we use the follow two questions:

"[Do you] feel it is all right for someone like yourself to borrow money....

....to cover the expenses of a vacation trip?
....to finance the purchase of a fur coat or jewelry?"

In each case, the survey allows only for a yes/no answer. We summarize the answers to these two questions, such that a family is considered prone to conspicuous consumption if they answered yes to either one of these two questions.

Third, we use a question that addresses a family's general attitude toward saving. Specifically, the SCF asks the following question:

"Which of the following statements comes closest to describing your saving habits?"

- Don't save—usually spend more than income
- Don't save—usually spend about as much as income

- Save whatever is left over at the end of the month—no regular plan
- Save income of one family member, spend the other
- Spend regular income, save other income
- Save regularly by putting money aside each month.”

Due to data limitations, we group the answers into two groups. Families are considered savers if they chose of the last three answers and non-savers otherwise.

We consider the connection between people’s attitudes and the probability that loans from a DC plan were used for conspicuous consumption. The loan category that is thus of most importance to us is loans from DC plans that were used to purchase goods and services. We first consider the distribution of attitudes among families in this loan category. Then, we consider the loan amounts, both in absolute terms and relative to income.

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Endnotes

¹ All data refer to employer-based retirement savings plans and not individual accounts, such as IRAs. IRAs do not offer loan options.

² Authors' calculations based on Board of Governors, Federal Reserve System, Survey of Consumer Finances, Washington, DC: BOG. Data include families with DC plans from current and past jobs.

³ See the appendix for additional detail on the demographic breakdown of families with DC plans and with the ability to borrow from their DC plans.

⁴ A. Sunden and B. Surette, "Households' Borrowing from 401(k) Plans," paper presented at the Second Annual Joint Conference of the Retirement Research Consortium, "The Outlook for Retirement Income," May 17-18, 2000, Washington, DC.

⁵ J. VanDerhei, S. Holden, C. Copeland, and L. Alonso, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2006," EBRI Issue Brief No. 308 (Washington, D.C.: Employee Benefit Research Institute, 2007).

⁶ General Accounting Office, "401(k) Pension Plans: Loan Provisions Enhance Participation But May Affect Income Security for Some" (Washington, DC: GAO, 1997).

⁷ GAO (1997) citing Buck Consultants, "401(k) Plans: Employer Practices and Policies" (New York, NY: Buck Consultants, 1996).

⁸ J. Geisel, "IRS Offers New 401(k) Loan Guidance," *Business Insurance* 34 (32) (2000): 1.

⁹ We make the following constant assumptions. Earnings grow at 3.9 percent per year, starting from Social Security's average wages of \$40,307 in 2008. We assume a constant contribution rate equal to 6 percent of earnings for a total of 35 years. Once a loan is taken out, it takes 5 years to repay the loan. The average rate of return on a person's account is 9.2 percent, reflecting the historical difference between the prime rate and a mixed portfolio rate of return.

¹⁰ Calculations based on Board of Governors, Federal Reserve System, Release H.15 Selected Interest Rates (Washington, DC: BOG, 2008).

¹¹ The General Accounting Office, now renamed the Government Accountability Office, estimated in 1997, under a different set of assumptions, that loans against retirement savings accounts could reduce retirement income by between 2 percent and 28 percent. See GAO, "401(k) Pension Plans: Loan Provisions Enhance Participation But May Affect Income Security for Some" (Washington, D.C.: General Accounting Office, 1997). Also, Munnell and Sunden (2004) estimate that a loan equal to 50 percent of the accumulated account balance taken out at age 40 and repaid over 5 years could reduce the accumulated savings by 1 percent to 16 percent, depending on the assumptions made about additional contributions.

¹² Center for Retirement Research, "Retirements at Risk: A New National Retirement Risk Index" (Boston, MA: Center for Retirement Research at Boston College, 2006).

¹³ O. Sorokina, A. Webb, and A. Muldoon, "Pension Wealth and Income: 1992, 1998, and 2004," CRR Issue in Brief 8-1 (Boston, MA: Center for Retirement Research at Boston College, 2008).

¹⁴ Although loan amounts are comparatively large in 1989, this reflects substantially fewer families with loans. For one, a lot fewer families had DC plans than in later years and a much smaller share of them could even borrow from their retirement savings plans.

¹⁵ See the appendix for detailed demographic breakdowns of these trends.

^{xvi} C. Weller, and D. Douglas, "One Nation Under Debt," *Challenge* 50 (1) (2007): 54-75.

^{xvii} A. Stettner and S. Allegretto, "The Rising Stakes of Job Loss: Stubborn Long-Term Joblessness amid Falling Unemployment Rates," EPI Briefing Paper No. 162 (Washington, D.C.: Economic Policy Institute, 2005).

^{xviii} See the appendix for a discussion of the survey questions.

^{xix} E. Laise and C. Karmin, "Despite Costs, More People Raid 401(k)s for Cash," *Wall Street Journal*, February 28, 2008.

^{xx} J.W. Elphinstone, "More Are Tapping 401(k) Funds to Make Ends Meet," *Associated Press*, March 10, 2008, available at <http://www.courierpress.com/news/2008/Feb/24/borrowing-against-the-future-more-americans-tap/>.

^{xxi} C. Dugas, "401(k)s Tapped to Save Homes," *USA Today*, March 10, 2008.

^{xxii} Ibid.

^{xxiii} J.W. Elphinstone, "More Are Tapping 401(k) Funds to Make Ends Meet."

^{xxiv} E. Laise, and C. Karmin, “Despite Costs, More People Raid 401(k)s for Cash”; C. Dugas, “401(k)s Tapped to Save Homes”; J.W. Elphinstone, “More Are Tapping 401(k) Funds to Make Ends Meet.”

^{xxv} J. Mincer, “401(k) Loans: At Your Own Risk – Borrowing Rises a Bit Despite Long-Term Danger,” *Wall Street Journal*, October 6, 2007.

^{xxvi} E. Laise, and C. Karmin, “Despite Costs, More People Raid 401(k)s for Cash.”

^{xxvii} Questions regarding debt attitudes are only available from 1995 forward. We use data from 1998 forward and then only by combining years to make the results comparable across attitude measures and to make sure that we have sufficient observations in each category.