



ANALYZING PLAN LOANS

Ned Taylor and Tom Breaden, CFA

INTRODUCTION

The IRS allows but does not require defined contribution retirement plans (“plans”) to offer “Plan Loans,” wherein participants may borrow and periodically repay a portion of their account balance. Financial advisors generally discourage Plan Loans as they cause participants to incur taxes and potentially forego investment gains. This reasoning is generally focused on a participant’s plan balance rather than their entire financial situation. Thinking in broader terms, however, it is very common for participants to need to borrow money during their working lives. The advisability of how to finance an endeavor, be it through a Plan Loan, borrowing from an outside lender, or by contributing less to a plan, reduces to a numerical trade-off that advisors seldom take the time to fully consider. Along these lines, this paper provides methods to analyze Plan Loans versus other financial strategies. These analyses may serve to inform plan sponsors’ views on Plan Loans.

SUMMARY

- It is well-known that Plan Loans, or borrowing in general, can impede retirement savings.
- However, when compared to borrowing from an outside lender, Plan Loans may be a superior source of financing.

PLAN LOAN MECHANICS

From a participant’s perspective, the receipt and repayment of Plan Loans is a simple process. A participant with no outstanding loans may borrow up to \$50,000 or 50% of their vested account balance (whichever is less). The application process is uncomplicated and does not require a credit score, collateral, employment checks (since the participant will be an active employee), or spousal consent under most circumstances. The participant then repays the loan in regular installments (typically from payroll in increments no longer than quarterly) for up to five years at an interest rate set by the plan (typically tied to the prime rate). As opposed to borrowing from an outside party, the “interest” portion of the Plan Loan repayment goes back into the participant’s account. The repayment of principal and interest are made with after-income-tax dollars (though FICA taxes do not apply to repayments), the interest portion not tax-deductible except in the rare case where the Plan Loan is secured by the borrower’s home. These re-invested monies will again be subject to ordinary income taxes when the participant later distributes them.

THE LOAN’S FINANCIAL VALUE

In a vacuum, the process above suggests that participants will be financially disadvantaged by taking out a Plan Loan as they will likely miss investment returns and will be subject to double-taxation (though the participant’s original loan distribution was not taxed). However, it is also conceivable that a Plan Loan may be less expensive than alternatives. To vet these comparisons, we consider three scenarios by which a participant may seek to obtain money:

- A Plan Loan
- A Personal Loan (from a bank)
- Contribute Less and Wait

In the case of a Plan Loan, the participant immediately withdraws the money from their account and begins making after-tax payments on principal plus interest¹. Once repaid to the participant’s account, these payments earn a “Market Return”. The Personal Loan consists of the participant leaving their plan account untouched and financing their expenditure by borrowing from a private lender at the “Personal Loan Rate” (currently in the upper single-digits or higher). These repayments are made to the lender with after-tax dollars. The third scenario, “Contribute Less and Wait”, is where the participant puts aside after-tax money to make a purchase at an end-of-loan equivalent time. In the interim they earn the “Bank Rate” on their savings, reduced by taxes on interest². Additionally, the price of the object of purchase increases at an assumed inflation rate. In all cases, the participant is assumed to desire to make a “Normal Contribution” to their account, which increases at the inflation rate. This before-tax contribution is reduced to the extent that its equivalent after-tax value exceeds the “Income Need”. To contextualize the long-term cost of these options, they are compared to a “No Changes (Don’t Spend)” scenario wherein the participant simply keeps contributing to their account.

In the end, the participant will desire whatever option results in the highest account balance and lowest outflow. The sum of these two is shown in the “Net Value” column in the bottom right of the table below. Waiting appears most financially attractive, incorporating the better element of the alternatives: not paying interest to an outside party (comparable to Plan Loans) and keeping your balance in the plan (which occurs in the Personal Loan scenario).

| End of Year | Plan Loan | | Personal Loan | | Contribute Less and Wait | | No Changes (Don't Spend) | |
|-------------|-----------|-------------|---------------|-------------|--------------------------|-------------|--------------------------|-------------|
| | Plan \$ | Income Need | Plan \$ | Income Need | Plan \$ | Income Need | Plan \$ | Income Need |
| 1 | \$2,310 | \$3,080 | \$10,700 | \$3,719 | \$10,700 | \$3,116 | \$13,526 | \$0 |
| 2 | \$4,781 | \$6,159 | \$11,449 | \$7,437 | \$11,449 | \$6,231 | \$17,355 | \$0 |
| 3 | \$7,426 | \$9,239 | \$12,250 | \$11,156 | \$12,250 | \$9,347 | \$21,510 | \$0 |
| 4 | \$10,255 | \$12,319 | \$13,108 | \$14,875 | \$13,108 | \$12,463 | \$26,015 | \$0 |
| 5 | \$13,283 | \$15,398 | \$14,026 | \$18,594 | \$14,026 | \$15,578 | \$30,895 | \$0 |

End of Year figures are cumulative. All scenarios except "No Changes" incorporate income taxes. All except "Plan Loan" incorporate FICA taxes of 7.65%.

| Assumptions | | | | | Results | (+) Plan \$ | (-) Inc. Need | (-) Net Value |
|---------------|---------------------|------------------------|--------------------|------------------------|---------------|-------------|---------------|------------------|
| Income Tax | Interest Tax | Inflation | Plan Interest Rate | Personal Loan Interest | Plan Loan | \$13,283 | (\$15,398) | (\$2,116) |
| 25% | 15% | 2.0% | 5.0% | 8.0% | Personal Loan | \$14,026 | (\$18,594) | (\$4,568) |
| Amount Needed | Normal Contribution | Contribution After-Tax | Market Return | Bank Rate | Wait | \$14,026 | (\$15,578) | (\$1,553) |
| \$10,000 | \$3,000 | \$2,250 | 7.0% | 3.0% | No Changes | \$30,895 | \$0 | \$30,895 |

¹ For computational simplicity, all repayments are assumed to be annual although IRS guidelines require Plan Loans to be no longer than quarterly.

² It is assumed that the participant in the “Contribute Less and Wait” scenario would incur an additional 10% early withdrawal penalty if they were to pay for their purchase through a deemed or hardship distribution from the Plan; making it more advisable to simply save for their purchase outside of the Plan.

While the results above are clear; for those who do not have the option to wait, or who are considering using a Plan Loan to pay debt (rather than save for a purchase), only the comparison of Plan Loan and Personal Loan is relevant³. As the preceding table suggests, the expected results are very assumption-dependent. To elaborate, the table below shows the estimated results for a range of poor to good Market Returns as well as for borrowing rates that may reflect secured financing (such as an auto loan) up to credit card debt. The results show a clear and intuitive relationship. Higher Market Returns per a given Personal Loan Int. rate favor the Personal Loan scenario. Likewise, a higher Personal Loan Int. rate favors borrowing from the plan (changes in the “Plan Int. Rate” do not have a high impact on the outcome). The fact that Personal Loan repayments are made after both income and FICA taxes (versus only income taxes applying to the Plan Loan) is also influential on the results. Advisors may translate these findings into general recommendations: it is better to finance low-interest borrowing externally. Higher-interest debt however can be repaid with a Plan Loan. Expected investment returns also warrant consideration. In particular, conservative investors may derive more certainty from the trade-offs presented below, as neither their expected return or borrowing cost (if fixed) is likely to fluctuate extensively.

Net Value: PLAN LOAN Minus PERSONAL LOAN

| Market Return/ Personal Loan Int. | -2% | 2% | 6% | 10% |
|--|------------|-----------|-----------|------------|
| 3% | \$2,869 | \$1,791 | \$450 | -\$1,192 |
| 6% | \$4,282 | \$3,205 | \$1,864 | \$222 |
| 9% | \$5,745 | \$4,667 | \$3,326 | \$1,684 |
| 12% | \$7,253 | \$6,176 | \$4,834 | \$3,192 |

Cases where the Plan Loan or Personal Loan have the higher Net Value are highlighted in blue and green respectively.

CONCLUSION

A review of what goes into borrowing and repayment of loans (interest, taxes, investment returns, etc.) indicates that Plans Loans may be a reasonable source of financing compared to borrowing from an outside lender. The importance of saving for retirement notwithstanding, it is easy to believe that participants may need to borrow money over the course of their careers and that not making Plan Loans available may be to subject them to financial disadvantage. Though not often touted as such, Plan Loans, can make financial sense to borrowers.

³ Additionally, Plan Loans, or even defaults on them, do not appear on a credit score.