PGIM

PGIM DC SOLUTIONS

BREAKEVEN RETURNS FOR DELAYED SOCIAL SECURITY CLAIMING

October 2024

INTRODUCTION

The potential benefits associated with delayed claiming of Social Security retirement benefits is widely covered in the financial press. This piece provides information about the "breakeven return" for various Social Security claiming ages for different longevity planning ages where the individual would technically be indifferent between early and delayed claiming. If he or she can earn a higher return than the breakeven in return, claiming earlier would generally be considered better. The breakeven returns are nominal geometric returns, which means they are the realized returns that include inflation and the impact of volatility and would be net of fees.

The analysis suggests that for most common longevity planning ages (90+) the required breakeven return exceeds 8% for a single individual and is likely closer to 10% for a married couple. While it would be theoretically possible to outperform delayed claiming (e.g., if the portfolio earns more than 8% per year) doing so would likely require a decent amount of risk, while Social Security retirement benefits are generally considered to be risk-free. The breakeven returns for delayed claiming are notably higher than for a life only SPIA (approximately 6%), which suggests delayed claiming should likely be considered for retirees before annuitizing wealth.

Overall, this piece is relatively consistent with other research on the topic, where delayed claiming of Social Security retirement benefits can be an especially attractive way to generate retirement income for those focused on longevity risk.

ANALYSIS

There are a variety of approaches used to help retirees determine when to optimally claim Social Security retirement benefits. One of the most common in "breakeven age," which is the assumed age the individual would need to survive to in order to be indifferent between early and delayed claiming. In this framework if the retiree thinks he will live beyond the breakeven age, delayed claiming is likely the smart strategy, and vice versa. While this is a relatively basic framework, since it ignores the more holistic implications of when to claim benefits, it can be an informative way to frame the tradeoffs with respect to the decision.

For this piece, opposed to focusing on breakeven ages, we focus on breakeven returns, which is the nominal geometric (realized) return the retiree would need to earn to be indifferent between early and delayed claiming. This approach can determine the breakeven return for a variety of longevity planning ages, so it can be used to set the required "hurdle" a portfolio would need to earn to outperform delayed claiming.

Breakeven returns in this analysis include inflation and the effect of volatility and are net of fees. The impact of volatility on realized returns is important since in order to achieve some of the relatively high noted breakeven returns the portfolio would likely need to be invested in relatively risky assets (which tend to have higher levels of volatility). For example, while stocks have historically had approximately a 12% arithmetic (simple average) return, the realized return (i.e., geometric or compound return) has been closer to 10%.

For the analysis, we assume a 2% inflation rate for future Social Security benefit increases, which is a relatively conservative assumption. For example, 10-year expected inflation in May 2024 was 2.34% according to the Federal Reserve Bank of Cleveland[1]. If actual (realized) inflation is higher than the assumed inflation rate the breakeven return would increase, and vice versa.

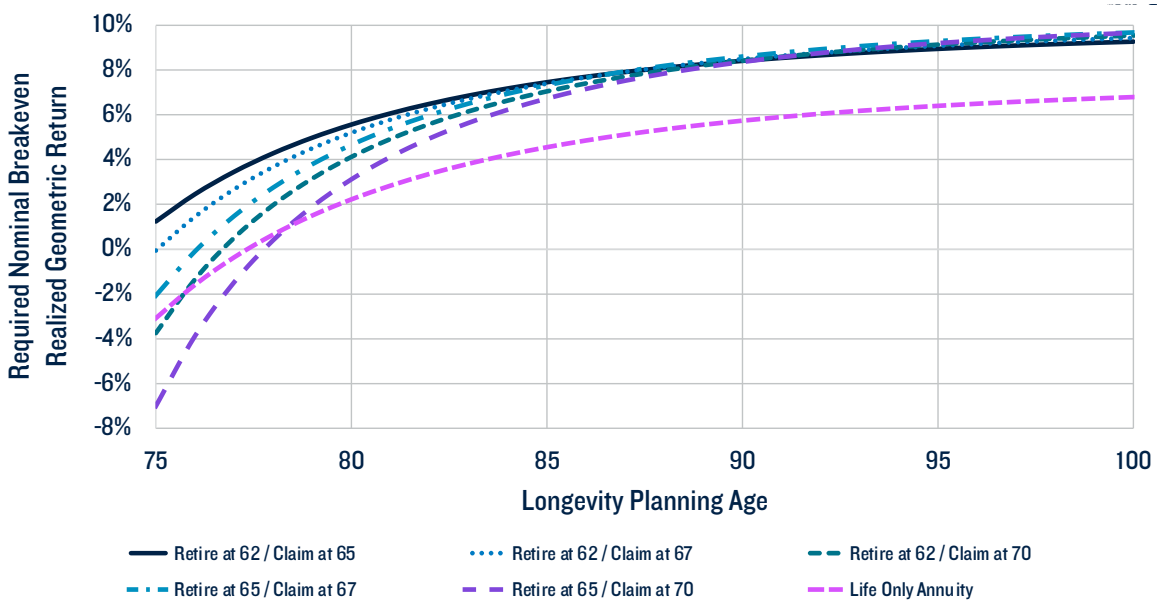
For the analysis the entire balance funding the delay decision is assumed to be in pre-tax (Traditional) monies. This is important since 100% of DC withdrawals would be assumed to be taxed, only 85% of Social Security retirement benefits are currently taxed. For retirees with relatively low income levels it is possible a lower portion of the Social Security benefits would be taxed, so this is a relatively conservative assumption.

[1] https://www.clevelandfed.org/indicators-and-data/inflation-expectations

SINGLE INDIVIDUAL SCENARIOS

The first set of scenarios ignores any kind of spousal survivor benefit. This would be for a retiree who is single, or whose benefit is going to be less than their spouse's. We consider five different delayed claiming scenarios, where the initial/delayed claiming ages are: 62/65, 62/67, 62/70, 65/67, and 65/70. We also include breakeven returns for a life-only single premium annuity (SPIA), which is where a 65-year-old male could buy a with a payout of approximately 7.5% (i.e., would generate $7,500 from an initial premium of $100,000), which is based on payouts from CANNEX on August 6, 2024. The breakeven returns for various longevity claiming ages for the different combinations are included in exhibit below.

Exhibit 1: Breakeven Returns by Longevity Planning Age



Source: Author's Calculations.

The breakeven returns increase for longer longevity planning ages. This expected, since it implies the retiree would receive the higher delayed benefit for a longer period. At age 85 the breakeven return averages about 7%. Note, age 85 is a relatively aggressive longevity planning age (e.g., in a financial plan), where ages 90 or 95 are more common. By age 90, the breakeven returns all exceed 8% and by age 95 they are all approximately 9%.

While US stocks have had a long-term return that exceeded 8% (closer to 10%), that would be a relatively risky portfolio with a significant level of uncertainty compared to Social Security benefits. Forecasted stock returns are also lower than historical averages. For example, PGIM's Q2 2024 Capital Market Assumptions[2] (CMAs) for US equities is only 6.35% (geometric annualized) for the next 10 years. This suggests even a relatively risky portfolio may be unable to achieve the same effective return benefit from delayed claiming.

While there is obviously mortality risk associated with delayed claiming, a better proxy for the risk of Social Security retirement benefits would likely be some type of long-term government bond. If we assume a 5%

[2] https://www.pgim.com/investments/article/2024-q2-capital-market-assumptions

geometric return (i.e., yield), the individual would only have to survive to between age 80 and 82 to be indifferent between delaying (and there is obviously significantly more upside to delaying if the individual lives longer).

Breakeven returns are highest (i.e., the expected benefits are greatest) from delayed claiming at relatively earlier ages. For example, delaying to age 65 from age 62 results in a higher breakeven return compared to going from age 67 to age 70. This context is important when conveying the delay decision to retirees, since the greatest benefits not from going all the way to age 70 (which many retirees are going to be unable to do) but delayed to age 65 or 67.

The breakeven returns for the life only annuity are notably lower than the breakeven returns for delayed claiming. For example, at age 90, the breakeven return for the life only annuity is around 6% versus over 8% for each of the Social Security delay strategies. These results are not intended to suggest retirees shouldn't annuitize, rather that the benefits of delayed claiming are generally going to exceed purchasing an annuity.

INCORPORATING SPOUSAL SURVIVOR BENEFITS

The previous analysis estimated breakeven returns were focused on a single individual and ignored any type of spousal survivor benefit. In reality, the potential benefits associated with delayed claiming can also potentially accrue to a spouse, if the spouse has a lower Social Security retirement benefit. While the actual rules are slightly more complicated, when one spouse of a married couple passes away the surviving spouses' total continued benefit will equal the larger of the two Social Security benefits being received. The total benefits received decline upon the death of the spouse, since the household would be going from two beneficiaries to one, but delayed claiming has the potential to significantly increase the level of income the surviving spouse could receive, which could change the decision around whether to delay. For example, even if the primary individual is relatively unhealthy it could make sense to delay claiming benefits depending on the spouse's health and expected benefits.

The presence of a potential spousal survivor benefit only increases the expected breakeven return. While the benefit increase may be relatively small, for example, if the spouse has a significantly lower life expectancy, it is always going to positively impact the breakeven return. Therefore, it is critical to understand the impact of a spousal benefit when claiming benefits.

Estimating breakeven returns with spousal survivor benefits is more complicated than the estimating breakeven rates for a single individual because longevity expectations for two individuals need to be considered as part of the analysis. In order to provide context on varied mortality expectations the expected cash flows by mortality rates. The mortality rates for our analysis are calibrated to the average expected mortality of DC participants, based on the research of Blanchett and Finke (2022) who note that DC participants have life expectancies that are approximately three years longer than the average American. More specifically, we apply a 30% mortality rate reduction to aggregate population mortality rates, which are defined as the Social Security Administration 2021 Period Life Table, as used in the 2024 Trustees Report[3].

[3] https://www.ssa.gov/oact/STATS/table4c6.html

For this analysis, the entire benefit associated with the delayed claiming benefit is assumed to be realized. In other words, the entire increase from the delay is assumed to be received by the spouse upon the death of the primary recipient. This does not necessarily mean that the primary benefit is twice the spousal benefit, rather simply that the difference between the early claiming age and delayed claiming age is more than the current spouse's benefit. To the extent this is not the case (i.e., the actual spousal benefit is somewhere in between) would just require weighting the "primary only" break even return with the "plus spouse" breakeven return by the percentage benefit associated with the delayed claiming that is realized.

Context is provided on breakeven returns for scenarios when there is only one individual (i.e., primary only), in order to connect this analysis to the previous analysis, as well as when there is potentially a surviving spouse. Providing breakeven returns for both scenarios also provides some context on the marginal impact of the surviving spousal benefit on the calculations.

For the analysis, we incorporate adjustments to life expectancy, which is more technically a modal adjustment to a Gompertz function calibrated to the mortality rates, for both the primary recipient and the spouse. We assume five different life expectancy states: very below average, below average, average, above average, and very above average, which correspond to modal adjustments of -6, -3, 0, 3, and 6 in the Gompertz function. The analysis assumes the early claiming age would be 62 and the delayed claiming age would be 65. The results are included below.

Exhibit 2: Breakeven Returns by Longevity Planning Age

	Primary LE:	Below Average		Average		Above Average	
		Primary Only	Plus Spouse	Primary Only	Plus Spouse	Primary Only	Plus Spouse
Spouse LE:	Very Below Avg	5.67%	7.20%	6.51%	7.58%	7.17%	7.93%
	Below Avg	5.67%	7.50%	6.51%	7.80%	7.17%	8.09%
	Average	5.67%	7.79%	6.51%	8.03%	7.17%	8.27%
	Above Avg	5.67%	8.07%	6.51%	8.26%	7.17%	8.44%
	Very Above Avg	5.67%	8.33%	6.51%	8.47%	7.17%	8.61%

Source: Author's Calculations.

If we focus on the scenarios that only consider a primary recipient (i.e., no spouse) with no change in life expectancy (i.e., average) the breakeven return is 6.51%. This is effectively the mortality weighted outcome for the respective scenario considered (Retire at 62 / Claim at 65). In other words, the average expected required breakeven return for a DC participant, age 62, to be indifferent between delaying to age 65 is 6.51%. When a spousal survivor benefit is included ("Plus Spouse") the breakeven return increases, from 6.51% to 8.03%, assuming average life expectancy for both. The breakeven return increases as the life expectancy of the spouse increases, which is expected.

The largest benefits associated to delayed claiming are when both the primary and spouse have higher than average life expectancies, which is consistent with expectations (i.e., there is a higher probability of receiving benefits for a longer period of time).

Incorporating the spousal survivor benefit tends to increase the required breakeven return by around 1.5%. For more conservative longevity planning ages (e.g., age 90+) which are common in financial plans, this would

imply a breakeven required return, when considering the spousal survivor benefit, that would generally exceed 10% (when incorporating this 1% differential into the results). This is a relatively high hurdle for a portfolio to achieve over a 25+ year period.

CONCLUSION

The decision about when to start claiming Social Security retirement benefits can have significant implications on the retirement outcomes for Americans. This article provides context on the required breakeven returns for various Social Security claiming scenarios and various longevity planning ages. For most retirees who have the assets to choose when to claim benefits, and the health to consider to do so, the required breakeven return is likely to exceed 8% for single individuals and 10% for married couples. Note, this breakeven return is net of inflation and fees.

The breakeven return for purchasing a life only annuity is lower than delayed claiming, typically in the neighborhood of 6% for more common longevity planning ages (e.g., age 90 or over). This suggests that while purchasing a life annuity can add value, delayed claiming Social Security should likely be considered first, given the higher breakeven return.

NOTES TO DISCLOSURE

These materials are for financial professional use only. Not for further distribution.

Receipt of these materials by anyone other than the intended recipient does not establish a relationship between such person and PGIM DC Solutions LLC ("PGIM DC Solutions") or any of its affiliates. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security. The information presented is not intended as investment advice and is not a recommendation about managing or investing retirement savings. These materials do not take into account individual investment objectives or financial situations.

PGIM DC Solutions LLC ("PGIM DC Solutions") is an SEC-registered investment adviser, a Delaware limited liability company, and an indirect wholly-owned subsidiary of PGIM, Inc. ("PGIM"), the principal asset management business of Prudential Financial, Inc. ("PFI") of the United States of America. PGIM DC Solutions is the retirement solutions provider of PGIM and aims to provide innovative defined contribution solutions founded on market leading research and investment capabilities. PFI of the United States is not affiliated in any manner with Prudential plc incorporated in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom. Registration with the SEC does not imply a certain level of skill or training.

These materials are for informational, illustrative and educational purposes only. This document may contain confidential information and the recipient hereof agrees to maintain the confidentiality of such information. Distribution of this information to any person other than the person to whom it was originally delivered is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of its contents, is prohibited. The information presented herein was obtained from sources that PGIM DC Solutions believes to be reliable as of the date presented; however, PGIM DC Solutions cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice.

These materials do not provide any legal, tax or accounting advice. These materials are not intended for distribution in any jurisdiction where such distribution would be unlawful.

The foregoing may contain "forward-looking statements" which are based on PGIM DC Solutions' beliefs, as well as on a number of assumptions concerning future events, based on information currently available to PGIM DC Solutions. Current and prospective readers are cautioned not to put undue reliance on such forward-looking statements, which are not a guarantee of future performance, and are subject to a number of uncertainties and other factors, many of which are outside PGIM DC Solutions' control, which could cause actual results to differ materially from such statements.

No representation or warranty is made as to future performance or such forward-looking statements.

PGIM DCS – 3857798

AUTHORS

David Blanchett, PhD, CFA, CFP®

Managing Director,
Portfolio Manager &
Head of Retirement Research
PGIM DC Solutions

ABOUT PGIM DC SOLUTIONS*

As the retirement solutions provider of PGIM, we plan to deliver innovative defined contribution solutions founded on market-leading research and capabilities. Our highly-experienced team partners with clients on customized solutions that seek to solve for current challenges facing DC participants. As of 06/30/2024, PGIM has $170 billion** DC assets under management and PGIM DC Solutions AUM is $1.3 billion.

* PGIM DC Solutions does not establish or operate pension plans.
** Reported data reflects the assets under management by PGIM and its investment adviser affiliates for defined contribution investment purposes only.

PGIM

FOR MORE INFORMATION

To learn more about our capabilities, visit www.pgim.com/dc-solutions
or contact PGIM DC Solutions at dc@pgim.com.