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THE RETIREMENT ANNUITY DILEMMA

Session 8A

SEPTEMBER 23, 2011

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The changing face of retirement programs

The plan sponsor's perspective

- Many plan sponsors have shifted from DB to DC plans
 - DC Plans are perceived to relieve the plan sponsor of all risks
 - Plan sponsor still at risk if employees can't retire due to:
 - Not saving enough
 - Poor investment decisions / market performance
 - Headline risk if groups of retirees run out of money

What risks are assumed by retirees ...and are they ready for them?

- Accumulation risks
 - Contributing enough
 - Company match (if variable)
 - Investment return
- Retirement income risks (the spend-down phase)
 - Investment returns
 - Longevity
- This session will focus on the spend-down risks and whether annuitizing makes sense

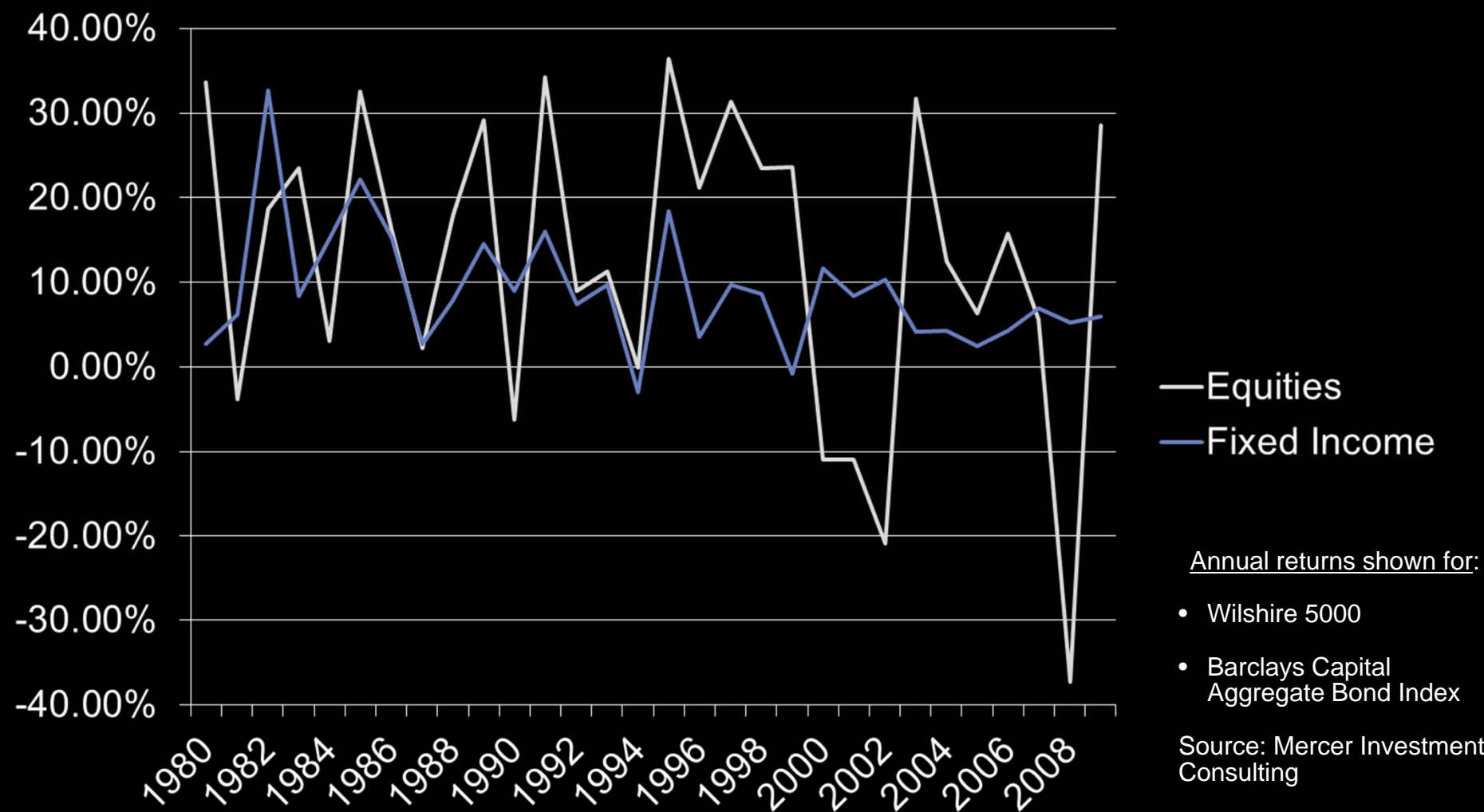
The retiree's perspective

Do annuities make sense?

- With lump sum payments, retirees faced with whether to annuitize these retirement assets
 - There are pros and cons to annuitizing:
 - Annuities alleviate the risk of outliving one's retirement assets, but
 - The risk reduction they provide comes with an associated cost.
 - So is there a place for annuities in the 21st century?
- Recent financial market events have focused new attention to volatility
 - Much of the volatility has been there all along...

Market volatility

Equity and fixed income returns (1980 – 2009)



What does this graph tell us?

Is there such a thing as “good volatility”?

- Both equity and fixed income returns were volatile
 - Despite the volatility, average annual returns were:
 - 12.6% for equities
 - 9.0% for fixed income
 - The last 30 years demonstrated an incredible bull market run
 - With average inflation below 4%, real returns were phenomenal

What a difference a decade makes

And it's not just the fashion trends that changed

Asset Class	1980 – 1989	1990 – 1999	2000 – 2009
Equities			
- Average	17.3%	18.4%	2.1%
- <i>Best year</i>	33.7%	36.4%	31.7%
- <i>Worst year</i>	-3.8%	-6.2%	-37.2%
Fixed income			
- Average	12.8%	7.9%	6.4%
- <i>Best year</i>	32.6%	18.5%	11.6%
- <i>Worst year</i>	2.7%	-2.9%	2.4%

What about the future?

Were the last 30 years the “good old days”?

- Most economists are projecting lower returns than we've seen
 - Equity returns anticipated to be lower
 - Many capital market assumptions assume equity returns in the 7.5% - 8.5% range
 - Many expect fixed income return to be relatively flat in next few years, then to increase
 - As interest rates are expected to rise in short term
- Current economic uncertainty suggests 2010s are not shaping up to be a good decade for retirees...

Our case study

Are they up to the challenge?

- After a 30+ year career with multiple companies, our new retiree has the following characteristics:
 - Retiring at age: 65
 - Account balances at retirement: \$250,000
- Our retiree initially plans to invest the lump sum
 - Wants to withdraw periodic payments that increase with inflation
 - Does not want to prematurely exhaust assets
 - Does not plan to leave an inheritance

The annuity dilemma

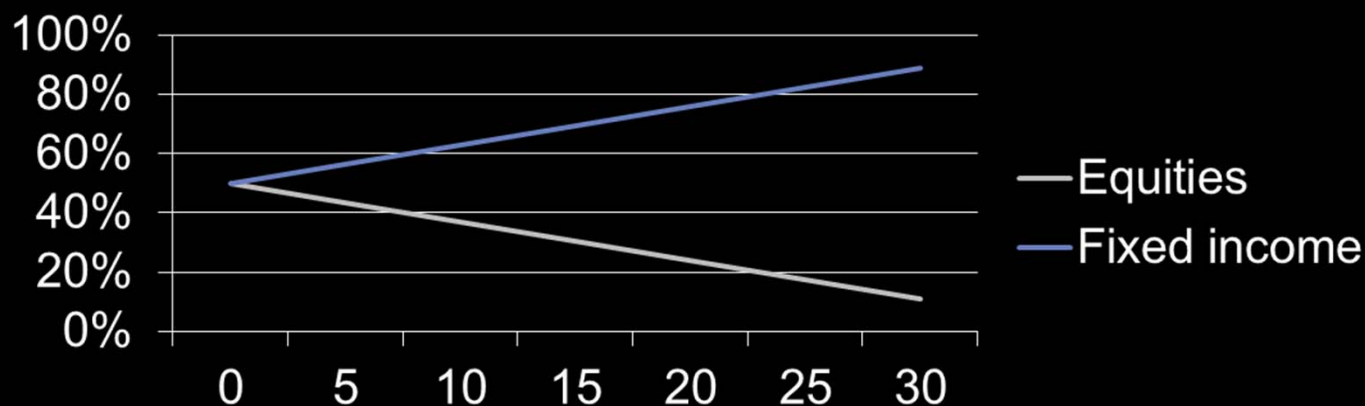
- So why isn't this new retiree considering an annuity?
- Several possible factors may contribute to this:
 - Fear of leaving money on the table
 - “What if I die tomorrow?”
 - Overlooking market volatility
 - “Yeah, markets are volatile, but I can weather it”
 - Fixation on the account balance
 - “I worked hard to accumulate that \$250,000 and I am not going to hand it over to someone else”
 - “Annuities are expensive”

But our new retiree has limited investment knowledge

- Our new retiree doesn't have intricate knowledge about investing
- Despite limited knowledge, they had the foresight to reduce their equity exposure over time
 - From over 80% early in their career to 50% at retirement
- Based on several articles/books they've read, they plan to continue reducing their investment exposure over time...

Anticipated asset allocation

- Asset allocation assumes 50% equities at age 65, declining 1.3% per year
 - Based on average of 10 target date mutual funds, with 10-year difference between target years
 - We extrapolated this result beyond the first 10 years, giving us the asset allocation shown below



So what's a retiree to do???

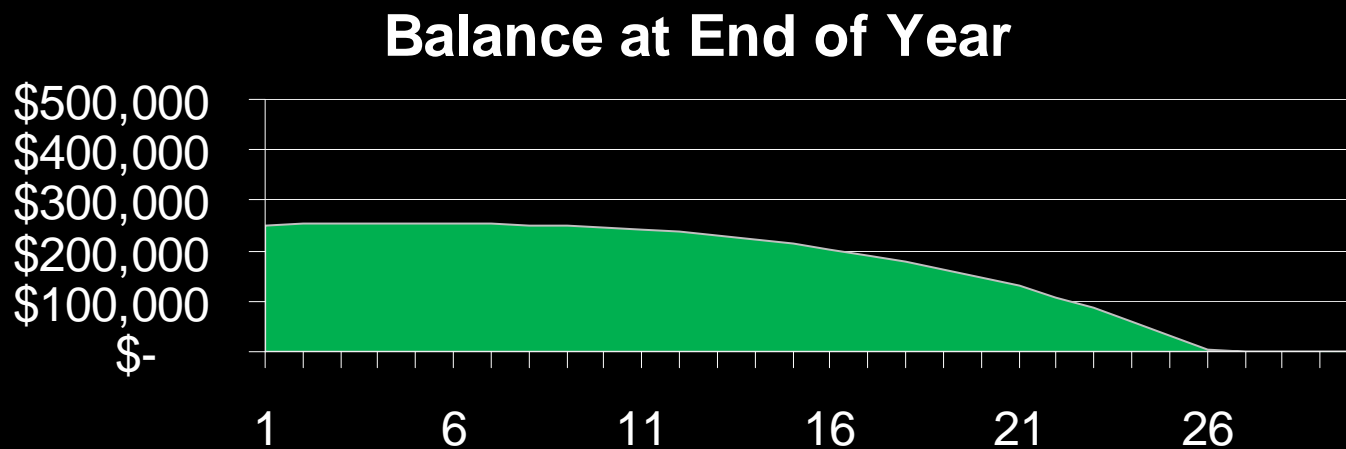
“Decisions, decisions, my life is now about decisions”

- As a result of the decision not to purchase an annuity, our newly retired employee has to make a critical decision
 - How much can they safely withdraw from their account balance?
 - 4%, 5%, 6%, 7%?
- Our retiree has determined that they need \$15,000 to live on, in addition to their Social Security benefit.
 - With annual adjustments for inflation
- So what will their account balance look like?

Base case

What if we could live in a world without volatility?

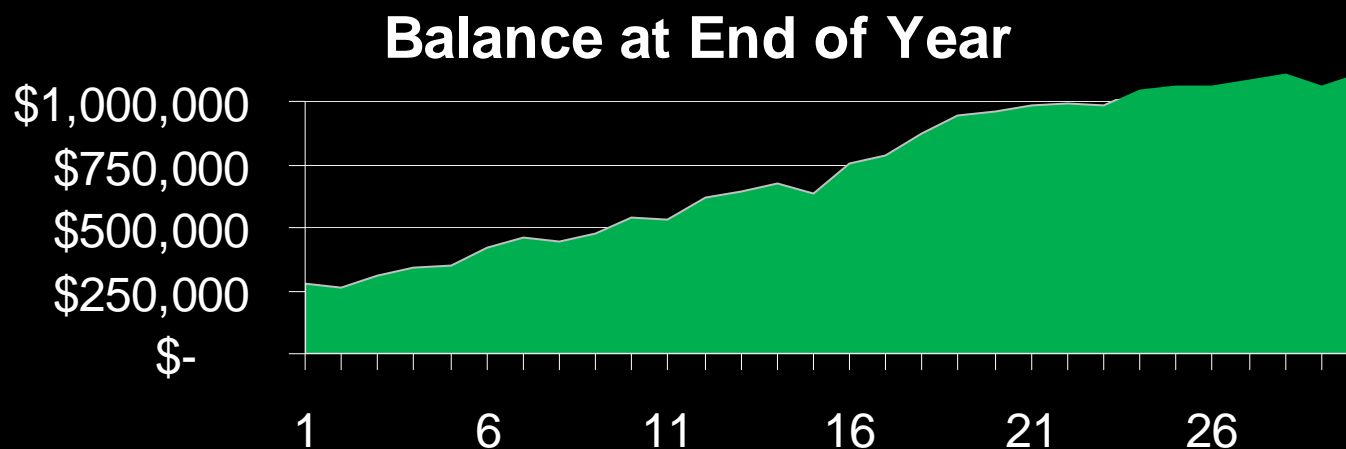
- Based on recent capital market assumptions:
 - 8% / 6% assumed equity / fixed income returns
 - 3% assumed inflation
- Account balance insufficient after 26 years
 - Only source of income becomes Social Security



Back to the future

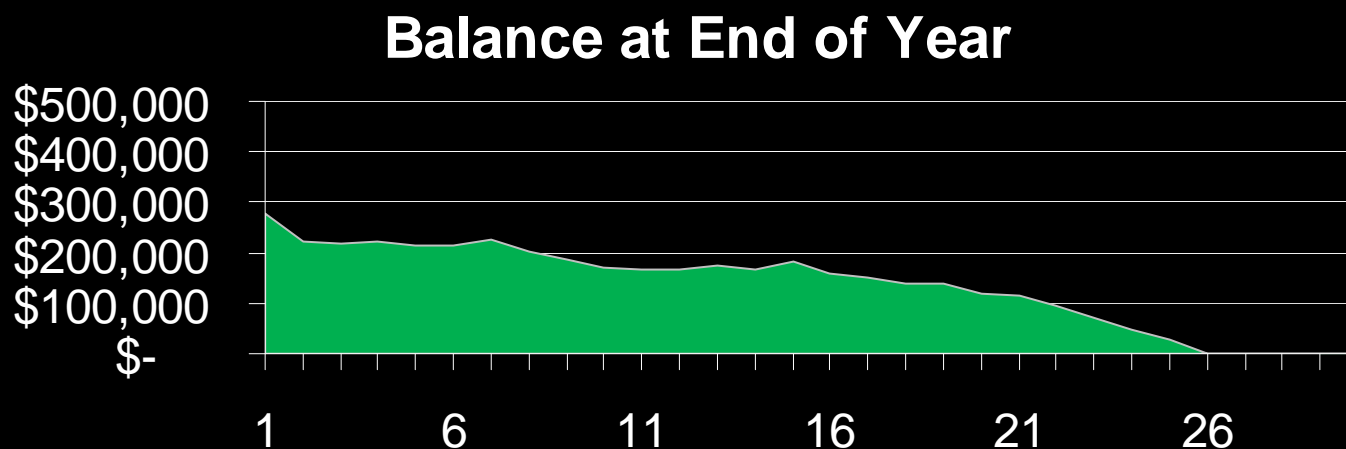
What if the future looks like the past 30 years?

- Equity / fixed income returns and inflation modeled based on historical annual returns from 1980 – 2009
- After 30 years has more than \$1 million account balance (~\$1.1 million)
 - Virtually no chance of outliving their assets



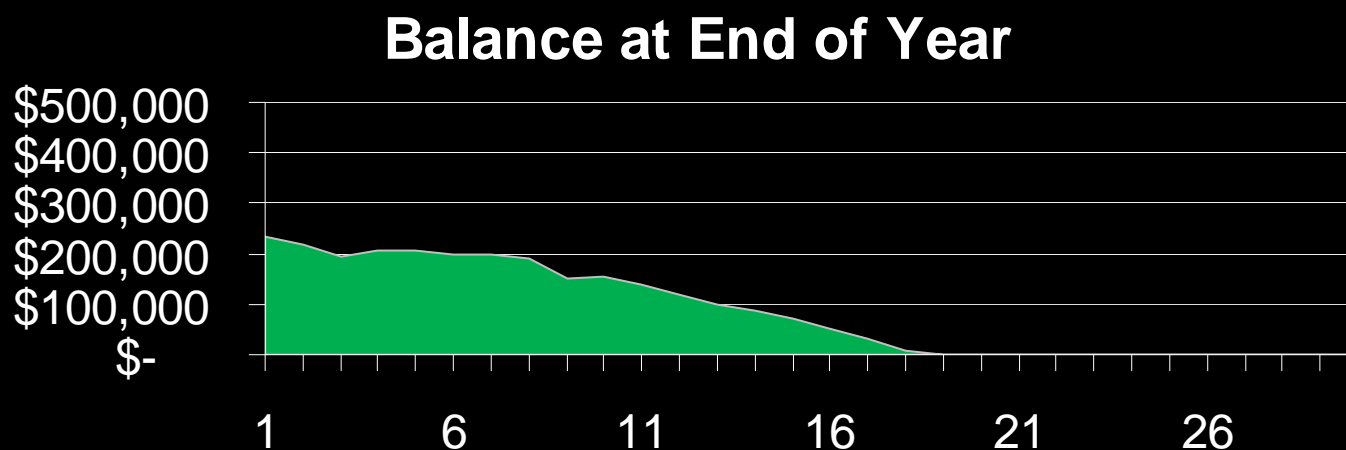
What if we could make time run backwards?
What if the last 30 years happened in reverse?

- Equity / fixed income returns and inflation modeled based on historical annual returns from 1980 – 2009, but occurring in reverse order
- Account balance insufficient after 25 years



What if the future looks more like the recent past?
Ugh, it's 2000 – 2009 over and over again!!!

- Equity / fixed income returns and inflation modeled based on historical annual returns from 2000 – 2009
 - Assumes three recurring back-to-back decades
- Account balance insufficient after 18 years



Whoa, these are difficult decisions
Maybe I should reconsider some annuity income...

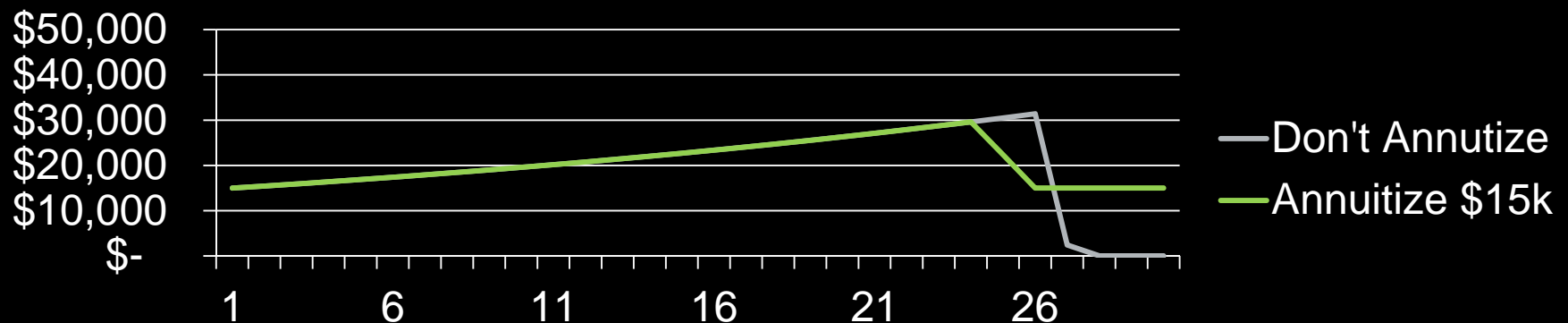
- Our retiree's thought processes are evolving:
 - “*What if I die tomorrow*” → **“What if I outlive my assets...”**
 - “*I can handle the volatility*” → **“Wow, markets have been more volatile than I remembered...”**
 - “*I am not going to hand my balance over to someone else*” → **“With an annuity, I can buy a guaranteed level of income...”**
- So our new retiree decides to purchase a life annuity that provides \$15,000 per year, and invests the remainder to provide inflation protection...

Base case

\$15,000 annuitized

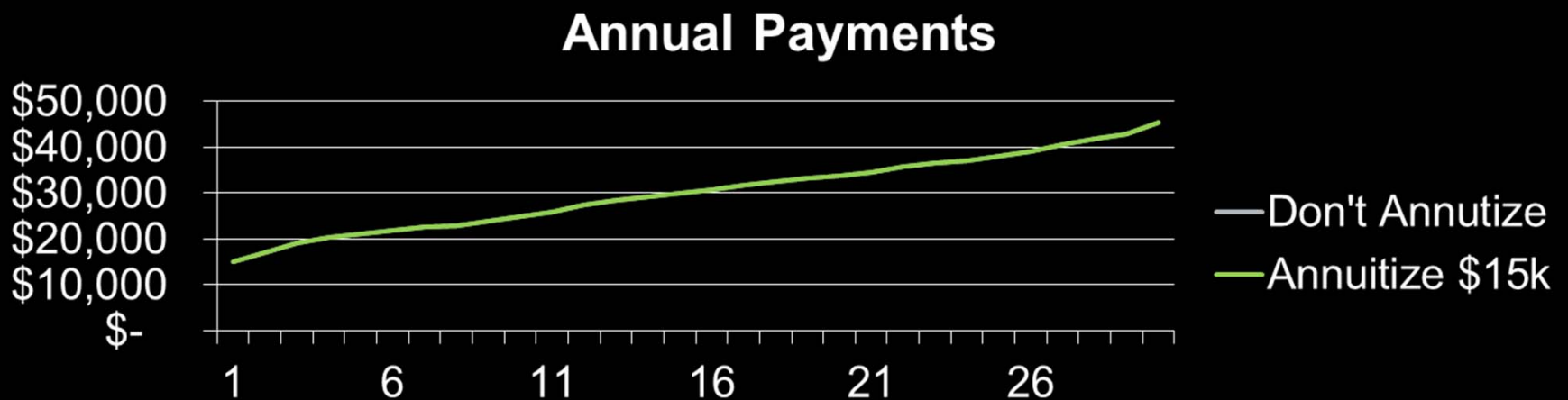
- Based on recent capital market assumptions:
 - 8% / 6% assumed equity / fixed income returns
 - 3% assumed inflation
- \$15,000 annuitized at 2010 annuity rates
 - Balance insufficient after 24 years (vs. 26 years without annuity), but \$15k continues

Annual Payments



A repeat of the last 30 years \$15,000 annuitized

- Equity / fixed income returns and inflation modeled based on historical annual returns from 1980 – 2009
- \$15,000 annuitized at 1980 annuity rates
 - Balance nearly \$1.2 million at year 30 (up from \$1.1 million), plus the value of the annuity payments

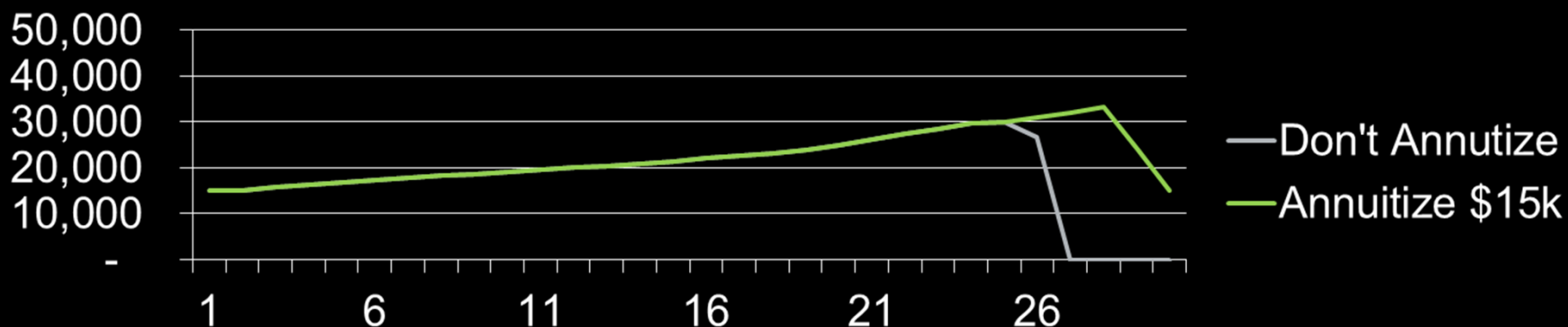


Rewinding the past 30 years

\$15,000 annuitized

- Equity / fixed income returns and inflation modeled based on reversing order of historical annual returns from 1980 – 2009
- \$15,000 annuitized at 2010 annuity rates
 - Balance insufficient after 28 years (vs. 25 years without annuity), and \$15k continues

Annual Payments

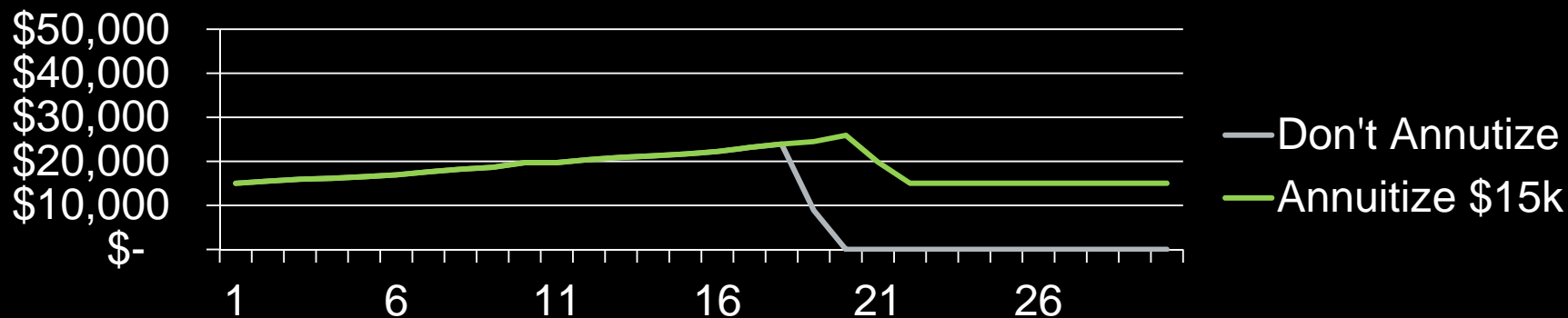


It's the first decade of the 2000s -- times three...

\$15,000 annuitized

- Equity / fixed income returns and inflation modeled based on historical annual returns from 2000 – 2009
 - Assumes three recurring back-to-back decades
- \$15,000 annuitized at 2000 annuity rates
 - Balance insufficient after 20 years (vs. 18 years without annuity), and \$15k continues

Annual Payments



What if the annuity is purchased 10 years later When do balances become insufficient

- What if the account balance is invested / drawn down for 10 years, and then the \$15,000 annuity is purchased at age 75?

Balance becomes insufficient after:		
Economic Scenario	Purchase Annuity At Age 65	Invest for 10 Years, Purchase Annuity At Age 75
Base Case	24 years	27 years
1980 – 2009 Chronologically	30+ years	30+ years
Reverse Chronological (2009 – 1980)	28 years	17 years
2000 – 2009 (three times)	20 years	12 years

Annuities: beyond the basics

Some of the most common embedded options

- Annuities come in many different flavors, including the following options
 - Immediate / deferred
 - Fixed / inflation indexed / variable
 - Continued payments to beneficiary
- Each of these options increases the cost of the annuity, and results in smaller monthly payments for a fixed purchase price

Longevity insurance

Taking the risk out of living...

- As life expectancies continue to increase, the risk of outliving one's assets rises
- A new spin on an ages-old product is longevity insurance
 - Basically a deferred annuity, commencing at a fairly advanced age (e.g., age 85)
 - Based on US News & World Report article from 2009*, \$50k purchase at age 65 might provide \$33k (female) or \$41k (male) at age 85
 - Higher payments would occur if bought earlier

* <http://money.usnews.com/money/blogs/the-best-life/2009/05/01/is-longevity-insurance-right-for-you>

APPENDIX

Appendix: Historical cost of living rates

- Cost of living based on historical Social Security increases
 - <http://www.ssa.gov/oact/cola/colaseries.html>
 - Note the values shown here take effect in the following year
 - e.g., the 5.8% shown for 2008 is the 2009 increase

Appendix: Historical annuity purchase rates

- Historical annuity purchase rates provided by a major insurer for \$250k purchase:

Year	Assumed Annuity Conversion Factor At Age 65	Assumed Annuity Conversion Factor At Age 75
1980	7.62	6.10
1990	8.88	6.98
2000	10.45	7.89
2010	12.82	9.38

Source: Major US Insurance Company

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