Making Retirement Work

Francis J. Sennott

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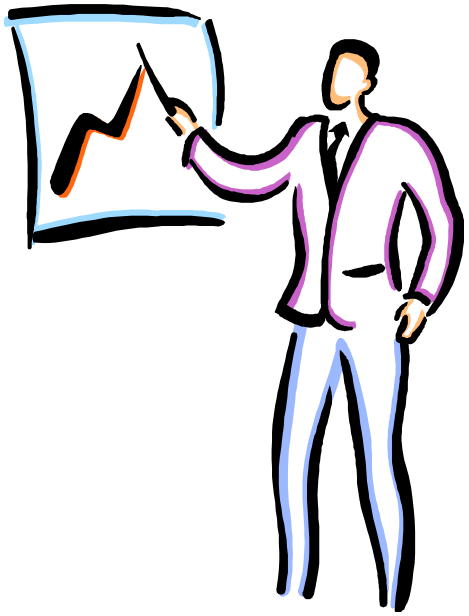
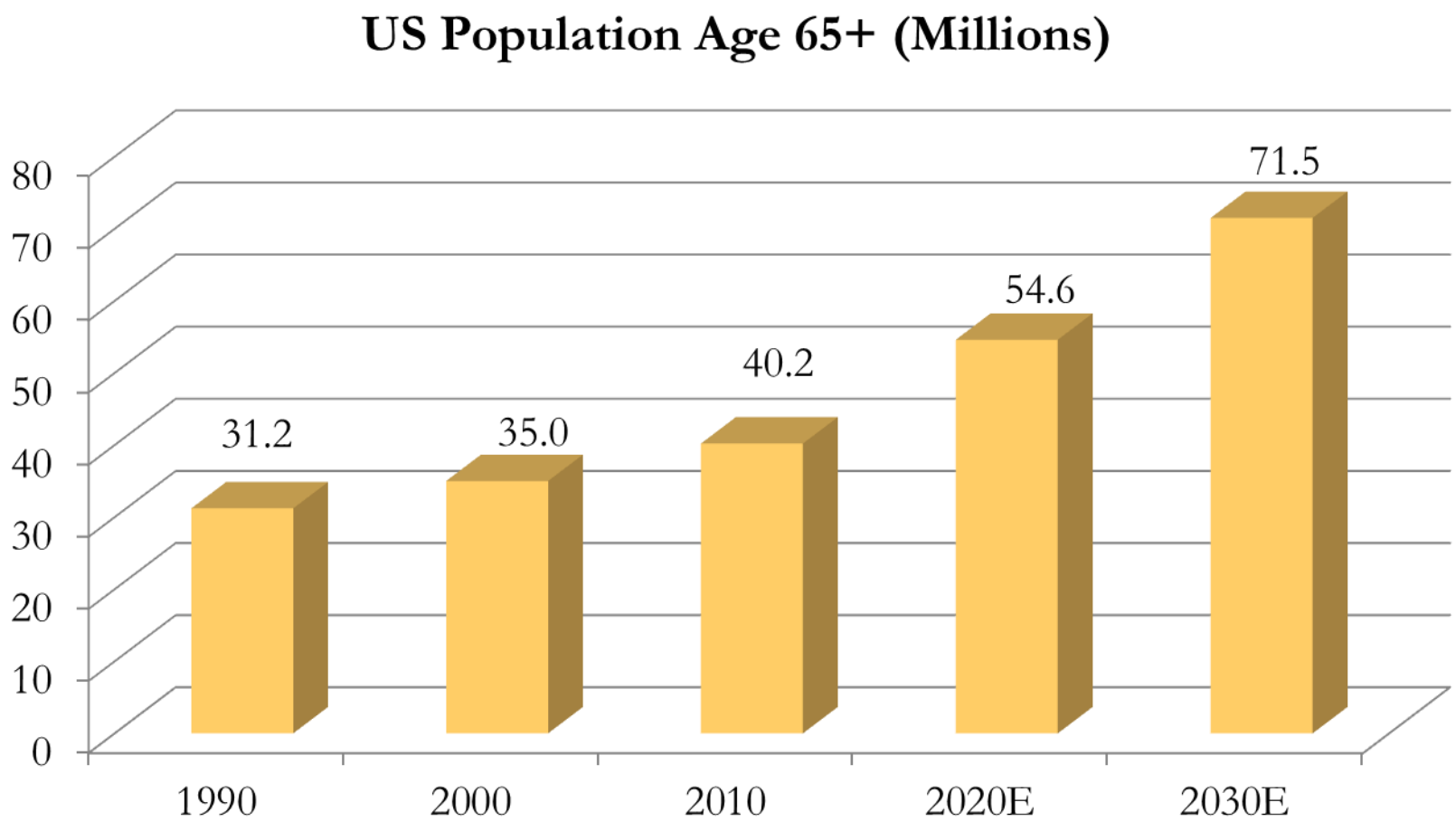
Agenda

- Planning for Retirement
- Saving for retirement
  - Qualified retirement plans
  - Other personal savings
- Investment planning
- Social Security
- Asset draw down
- Other retirement planning considerations



Planning for Retirement

Our Aging Population



What is Retirement Planning?

- Lifestyle planning
- Cash flow planning
- Income tax planning
- Debt management
- College funding
- Investment planning
- Benefits planning
- Distribution planning
- Life insurance planning
- Estate planning

Where Will Your Retirement Income Come From?

Traditional Sources

- Employer sponsored retirement savings plans
- Personal savings
- Social Security

Other Sources

- Price trade-down in personal residence
- Reverse mortgage
- Inheritance
- Life insurance proceeds on death of family member

Retirement Planning Tools

- The Boston College Center for Retirement Research provides data on many retirement planning issues
  - www.crr.bc.edu
- The Center for Retirement Research also provides interactive retirement planning tools
  - http://crr.bc.edu/special-projects/interactive-tools/target-your-retirement
  - http://squaredawayblog.bc.edu/curious/

Savings for Retirement

Start Saving Early

Twin Sisters:

	Janet	**Joan**
	Invests $2,000 per year for 10 years from age 21 to 30 *Earns a 7%* *annual return*	Invests $2,000 per year for 35 years from age 31 to 65 *Earns a 7%* *annual return*
At age 65	$316,000	$296,000

Set Your Savings Goals

Pre-tax Savings As a Percentage of Salary to Achieve a 70% Retirement Income Replacement Ratio at Age 65*

	Pre-tax Investment Return						
Age	**4%**	**5%**	**6%**	**7%**	**8%**	**9%**	**10%**
25	32%	23%	16%	12%	8%	6%	4%
30	37%	27%	20%	15%	11%	8%	6%
35	45%	34%	26%	19%	15%	11%	9%
40	55%	43%	33%	26%	20%	16%	13%
45	70%	56%	45%	36%	29%	24%	20%
50	76%	79%	65%	54%	45%	38%	32%
55	148%	124%	105%	89%	77%	66%	57%
60	303%	261%	226%	197%	174%	154%	137%

- ***Assumes 3% average salary increases over career, 2% cost of living increases, $0 starting balance, age 95 life expectancy. Adjust for employer matching contributions.***

Saving for Retirement

- Tax Favored Investing
  - Employer sponsored retirement plans
    - 401(k) plans
    - 403(b) plans
    - 457(b) plans
    - Self-employed plans
  - Traditional individual retirement accounts (IRAs)
  - Roth IRAs
  - Nonqualified annuities
- Personal Savings
  - Bank accounts
  - Mutual Funds & ETFs
  - Brokerage and investment accounts
  - Separately managed accounts

401(k)/403(b) Plans

- Qualified employer-sponsored retirement plan
  - Traditional
  - Roth
- Assets grow free of income tax
- Participants may contribute
  - Up to $17,500 in 2013
  - Participants age 50 or older may make a $5,500 "catch-up contribution" bringing total to $23,000 for 2013
- Required minimum distributions begin at later of retirement under the plan or attainment of age 70 ½
  - Distributions are based on life expectancy
  - The required minimum distributions increase as the participant ages
- Plan assets may be rolled into an IRA at retirement

Traditional vs. Roth 401(k)/403(b)

- Traditional 401(k)/403(b)
  - Contributions are pre-tax
  - Distributions taxed at ordinary income rates
    - Required minimum distributions commence at the later of
      - retirement, or
      - attaining age 70 ½
    - 10% Penalty tax on distributions before age 59 ½
      - Certain exceptions apply
- Roth 401(k)/403(b)
  - Contributions are after tax
  - ***Distributions are free of tax*** if
    - Funds in plan for at least five years and
    - The distribution is
      - Made after age 59 ½
      - Made after a disability
      - Payable to a beneficiary at death
      - $10,000 or less and used to help purchase your first home
  - Required minimum distributions from Roth 401(k)/403(b), but not from rollover Roth IRA

Roth Income Tax Considerations

	Traditional 401(k)	Roth 401(k)	Roth Advantage
2012 Contribution	$15,000	$15,000	
Held Back to Pay Tax (33%)	$0	($5,000)	
Final Contribution	$15,000	$10,000	
Growth After 10 Years	2x (7.18%/Yr)	2x (7.18%/Yr)	
Balance After 10 Years	$30,000	$20,000	
Tax Due on Liquidation			
Case 1. 25% Rate	($7,500)	$0	
Case 2. 33% Rate	($10,000)	$0	
Case 3. 40% Rate	($12,000)	$0	
Liquidation Value			
Case 1. 25% Rate	$22,500	$20,000	($2,500)
Case 2. 33% Rate	$20,000	$20,000	($0)
Case 3. 40% Rate	$18,000	$20,000	$2,000

Source of Funds to Pay Tax Liability

	Traditional 401(k)	Taxable Side Fund	Roth 401(k)	Taxable Side Fund	Roth Advantage
2012 Contribution	$15,000	$5,000	$15,000	$5,000	
Liquidated to Pay Tax (33%)	$0	$0	($0)	($5,000)	
Balance	$15,000	$5,000	$15,000	$0	
Growth After 10 Years	2x	1.7x	2x		
	(7.18%/Yr)	(5.45%)	(7.18%)		
Balance After 10 Years	$30,000	$8,500	$30,000		
Tax Due on Liquidation					
Case 1. 25% Rate	($7,500)	$0	$0		
Case 2. 33% Rate	($10,000)	$0	$0		
Case 3. 40% Rate	($12,000)	$0	$0		
Liquidation Value					
Case 1. 25% Rate	$22,500	$8,500	$30,000		
Case 2. 33% Rate	$20,000	$8,500	$30,000		
Case 3. 40% Rate	$18,000	$8,500	$30,000		
Total Liquidation Value					
Case 1. 25% Rate	$31,000		$30,000		($1,000)
Case 2. 33% Rate	$28,500		$30,000		$1,500
Case 3. 40% Rate	$26,500		$30,000		$3,500

Personal Savings - Individual Retirement Accounts

Traditional IRA

- $5,500 annual contribution limit (plus $1,000 "catch-up" contributions)
- Spousal IRAs may be established
- Contributions fully tax deductible if
  - Not covered by employer-sponsored plan
- If covered by employer plan, phase-out of contribution deduction as income increases
  - Modified adjusted gross income (MAGI) between $59,000 and $69,000 for a single person
  - MAGI of $95,000 to $115,000 for a married couple
  - If only one spouse is covered by an employer sponsored plan, joint MAGI of $178,000 to $188,000 for the non-covered spouse
- Permitted investments include mutual funds and self-directed brokerage accounts
- Investment income is tax deferred
- Required minimum distributions upon attaining age 70 ½
- Distributions subject to income tax at ordinary rates after recovery of after-tax balance over taxpayer's life expectancy
  - 10% Excise tax on distributions prior to age 59 ½.
    - Certain exceptions apply

Personal Savings - Individual Retirement Accounts

Roth IRA

- Similar to traditional IRA with tax free earnings
- Distributions are free of tax if
  - Funds in plan for at least five years and
  - The distribution is
    - Made after age 59 ½
    - Made after a disability
    - Payable to a beneficiary at death
    - $10,000 or less and used to help purchase your first home
- Contributions are not deductible
- Contribution limits integrated with traditional IRA contribution limits
- Phase-out of contribution limit as income increases
  - Modified adjusted gross income (MAGI) between $110,000 and $125,000 for a single person
  - MAGI of $178,000 to $188,000 for a married couple
  - **Conversion to Roth IRA permissible with no income limits**
    - **Cannot "cherry-pick" IRA to be converted**
- No required minimum distributions

Nonqualified Annuities

- A financial vehicle offered by life insurance companies
  - Invest funds in annuity policy
  - Earn an investment return
  - Pay expenses associated with the annuity policy
  - Eventually take distributions over a period of time based on the accumulated cash value
- There are no contribution limits
  - Contributions are not tax deductible outside of a qualified plan or IRA
- Earnings grow free of tax
- Distributions are subject to income tax
  - Cost basis is recovered over life expectancy of annuitant, so portion of benefit is tax free.

Nonqualified Annuities – Investment Options

- Fixed annuities
  - The insurance company controls the investment of the policy cash value.
  - The cash is usually invested in a mixture of bonds and mortgages.
  - The insurance company usually guarantees a minimum investment return, typically 2% to 3%.
  - Once the contract is annuitized, benefit payments are fixed.

- Variable annuities
  - The insurance company provides the policy owner a series of mutual fund investment options and the owner may decided how to allocate the cash value across the funds.
  - Earnings are credited to the contract in accordance with the investment performance of the underlying funds.
  - Once the contract is annuitized, benefit payments will vary with investment performance.

Selected Annuity Income Options

- Straight life income
- Life with period certain
- Joint and survivor
- Term certain

Rules for Saving - Retirement Plans

Maximize income tax favored vehicles

- Contribute to Roth 401(k) if cash flow permits
  - Contribute the maximum, including catch-up contributions
- Contribute to Roth IRA if cash flow still permits
  - If your adjusted gross income (AGI) is over the limit ($127,000 for a single individual, $188,000 for a married couple) consider contributing to a traditional IRA and then converting to a Roth IRA
    - **Cannot "cherry pick" IRA to convert; must aggregate all IRA balances and after tax contributions and allocate to amount converted**
- If Roth option not available, contribute to regular 401(k)
- If cash flow doesn't permit a Roth IRA contribution, and AGI is below limits, consider a tax deductible IRA contribution.

Rules for Savings – Retirement Plans (Cont.)

- Non-deductible IRA contributions
  - May not be worthwhile for an equity investor under the current income tax regime for capital gains and dividends
  - The IRA converts tax favored capital gains and dividends to ordinary income
    - 20% → 40% in Massachusetts
    - 25% → 45% in top tax bracket
- $5,500 non-deductible IRA contribution:
  - At 6% annual return, balance grows to $17,639 after 20 years
  - If liquidated, ordinary income tax due on $12,139 ($17,639 - $5,500)
    - After 40% tax, balance is $12,783
    - After tax annual return of 4.31%
    - Reduction due to income taxes is 6% - 4.31% = 1.69%, or 28% of total
    - An equity investor would expect a lower effective tax rate than 28%
- Results could be different for a fixed income investor
- 2013 Income tax changes may affect results:
  - 39.6% top federal tax rate
  - 3.8% Medicare tax on investment income

Rules for Savings - Annuities

- Annuities are tax favored, but this may not be the right time for them
  - For fixed annuities, interest rates are very low and the contracts usually carry a 1.25% mortality and expense (M & E) fee, leaving a modest net return
  - For equity investors in variable annuities
    - The result is similar to that for non-deductible traditional IRAs with capital gains and dividend income converted to ordinary income,
    - and there is still the 1.25% M & E fee.
- Annuities may still be appropriate for someone with real concerns about outliving their assets.

Annuity Returns *

		Single Premium Immediate Annuity					
Year	Age	Net Outlay	Gross Benefit	Cost Recovery	Tax at 33%	After Tax Benefit	IRR
2012	65	100,000	6,072	5,000	(354)	5,718	-94.28%
2013	66	-	6,072	5,000	(354)	5,718	-73.06%
2014	67	-	6,072	5,000	(354)	5,718	-54.34%
2015	68	-	6,072	5,000	(354)	5,718	-40.78%
2016	69	-	6,072	5,000	(354)	5,718	-31.09%
2017	70	-	6,072	5,000	(354)	5,718	-24.03%
2018	71	-	6,072	5,000	(354)	5,718	-18.76%
2019	72	-	6,072	5,000	(354)	5,718	-14.72%
2020	73	-	6,072	5,000	(354)	5,718	-11.56%
2021	74	-	6,072	5,000	(354)	5,718	-9.06%
2022	75	-	6,072	5,000	(354)	5,718	-7.03%
2023	76	-	6,072	5,000	(354)	5,718	-5.37%
2024	77	-	6,072	5,000	(354)	5,718	-3.99%
2025	78	-	6,072	5,000	(354)	5,718	-2.84%
2026	79	-	6,072	5,000	(354)	5,718	-1.86%
2027	80	-	6,072	5,000	(354)	5,718	-1.03%
2028	81	-	6,072	5,000	(354)	5,718	-0.31%
2029	82	-	6,072	5,000	(354)	5,718	0.31%
2030	83	-	6,072	5,000	(354)	5,718	0.84%
2031	84	-	6,072	5,000	(354)	5,718	1.31%
2032	85	-	6,072	-	(2,004)	4,068	1.61%
2033	86	-	6,072	-	(2,004)	4,068	1.88%
2034	87	-	6,072	-	(2,004)	4,068	2.13%
2035	88	-	6,072	-	(2,004)	4,068	2.36%
2036	89	-	6,072	-	(2,004)	4,068	2.56%
2037	90	-	6,072	-	(2,004)	4,068	2.75%
2038	91	-	6,072	-	(2,004)	4,068	2.92%
2039	92	-	6,072	-	(2,004)	4,068	3.08%
2040	93	-	6,072	-	(2,004)	4,068	3.22%
2041	94	-	6,072	-	(2,004)	4,068	3.35%

- Single Premium Immediate Annuity
  - Straight life annuity
  - 65 Year old female
  - $100,000 Investment
  - 20 Year life expectancy
  - 33% Income tax rate

- ***Benefit figures from www.immediateannuities.com***

Personal Savings - Investment Vehicles

- Mutual funds
  - Diversification
  - Reasonable fees
    - Fees are usually expressed as a percentage of the assets under management ("AUM") (i.e., 0.50% - 1.50%, aka 50 "basis points" to 150 "basis points")
    - Note share classes (i.e., A, B, I, R)
  - Active vs. passive management
  - Open vs. closed-end funds
- Exchange Traded Funds ("ETFs)
  - Diversification
  - Modest fees
  - Passive management
  - May be slightly more income tax efficient than a passive mutual fund
- Individually owned securities
  - For those with some investment expertise and the time to manage their own assets

Personal Savings - Investment Platforms

- Mutual fund families
  - i.e., Vanguard, Fidelity, T. Rowe Price
- Discount brokers
  - i.e., Schwab, Fidelity, E-Trade, TD Ameritrade
  - Access to mutual funds from numerous fund families, ETFs and individual securities at low cost
  - Access to research material, but otherwise limited investment advice
- Full service brokers
  - i.e., Merrill Lynch, Morgan Stanley, UBS
  - Access to mutual funds, ETFs and individual securities
  - Access to research and financial planning tools
  - Typically offer a "wrap program" that offers advice and asset management for a percentage of the assets under management (1% - 3%).
  - May be best option for investors with accounts less than $500,000

Personal Savings - Investment Platforms (Cont.)

- Separately Managed Accounts ("SMAs")
  - Manager with expertise in a single asset class (i.e., large cap U.S. equities, municipal bonds)
  - Charge a fee based on assets under management
    - 0.30% - 0.60% for a fixed income portfolio
    - 0.80% - 1.75% for an equity portfolio
  - Large minimum investments ($500,000 - $5,000,000)
    - A full service broker may access SMAs for clients at lower minimums and fees
  - Greater ability to be income tax efficient
- Investment Advisors
  - Manager of Managers
  - May use a combination of SMAs and mutual funds
  - Recommend asset allocation
  - Prepare consolidated statements and investment reports
  - Charge a fee on top of mutual fund and SMA fees
    - 0.50% - 1.25% depending on level of service
  - Typically have relationship minimums of $500,000+

Savings Rules of Thumb

As excess cash flow permits fund:

- Down payment for first home
- 6 Month supply of liquid assets
- Pay down high interest debt
- Regular 401(k)/403(b)
  - Roth 401(k)/403(b)
- Tax deductible IRA
  - Roth IRA
- Taxable investment accounts
- Consider non-deductible IRAs and annuities depending upon tax rules and interest rate environment

As family situation changes fund:

- Life insurance for survivor income protection
- 529 Plans for child's college costs
- Long term care insurance
- Gifts to heirs and charities

Investment Planning

Asset Allocation – Historical Review of Market Leadership

The Case for Diversification

Historical Review of Market Leadership — Asset Classes, Styles and Alternatives — Year by Year: 1996 – 2011 (12/31/11)

12/31/96	12/31/97	12/31/98	12/31/99	12/31/00	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08	12/31/09	12/31/10	12/31/11	10 year (2002 - 2011)
REITs 35.28%	Large Cap Value 36.18%	Large Cap Growth 38.71%	Emerging Market 66.41%	Commodity 31.84%	Small Cap Value 14.03%	Commodity 25.81%	Emerging Market 56.28%	REITs 31.67%	Emerging Market 34.54%	REITs 35.06%	Emerging Market 39.78%	Commodity Futures 14.09%	Emerging Market 79.02%	Small Cap Growth 29.09%	REITs 8.28%	Emerging Market 277.11%
Commodity 23.17%	Mid Cap Value 34.37%	S&P 500 28.58%	Mid Cap Growth 51.28%	REITs 28.36%	REITs 13.93%	World Bond xUS 21.93%	Small Cap Growth 48.54%	Emerging Market 25.94%	Commodity 21.36%	Emerging Market 32.05%	Commodity 18.93%	World Bond xUS 10.11%	Mid Cap Growth 46.29%	REITs 27.95%	US Bond 7.84%	REITs 184.18%
Large Cap Growth 23.12%	S&P 500 33.36%	International 20.00%	HFRI Equity Hedge 44.22%	Small Cap Value 22.83%	US Bond 8.44%	Commodity Futures 12.36%	Small Cap Core 47.26%	Mid Cap Value 23.71%	International 13.54%	International 26.34%	Large Cap Growth 11.81%	US Bond 5.24%	Mid Cap Core 40.48%	Small Cap Core 28.86%	World Bond xUS 6.17%	World Bond xUS 123.14%
S&P 500 22.96%	Small Cap Value 31.78%	Mid Cap Growth 17.86%	Small Cap Growth 43.09%	Mid Cap Value 19.18%	Cash 4.08%	US Bond 10.26%	Small Cap Value 46.03%	Small Cap Value 22.25%	Mid Cap Core 12.85%	Small Cap Value 23.48%	World Bond xUS 11.45%	Cash 1.80%	Large Cap Growth 37.21%	Mid Cap Growth 26.38%	Large Cap Growth 2.64%	Mid Cap Value 109.38%
HFRI Equity Hedge 21.76%	Large Cap Growth 30.49%	World Bond xUS 17.80%	Large Cap Growth 33.16%	US Bond 11.83%	Small Cap Core 2.48%	REITs 3.81%	Mid Cap Growth 42.71%	International 20.25%	Mid Cap Value 12.85%	Large Cap Value 22.25%	Mid Cap Growth 11.43%	HFRI Equity Hedge -26.86%	Small Cap Growth 34.47%	Mid Cap Core 26.47%	S&P 500 2.11%	Diversified Portfolio 98.04%
Large Cap Value 21.64%	Mid Cap Core 28.01%	HFRI Equity Hedge 15.88%	International 26.96%	HFRI Equity Hedge 9.09%	Mid Cap Value 2.33%	Cash 1.70%	Mid Cap Core 40.06%	Mid Cap Core 20.22%	REITs 12.17%	Mid Cap Value 20.22%	International 11.17%	Small Cap Value -28.92%	Mid Cap Value 34.21%	Mid Cap Value 24.76%	Large Cap Value 0.39%	Mid Cap Core 86.68%
Small Cap Value 21.37%	HFRI Equity Hedge 23.41%	Large Cap Value 15.83%	Commodity 24.36%	Mid Cap Core 8.26%	Commodity Futures 0.84%	HFRI Equity Hedge -4.71%	International 38.59%	Small Cap Core 18.33%	Mid Cap Growth 12.10%	Small Cap Core 18.37%	HFRI Equity Hedge 10.48%	Diversified Portfolio -31.56%	International 31.78%	Small Cap Value 24.50%	Cash 0.08%	Commodity 90.02%
Mid Cap Value 20.28%	Mid Cap Growth 22.54%	Mid Cap Core 10.10%	Diversified Portfolio 21.50%	Commodity Futures 7.86%	HFRI Equity Hedge 0.40%	Emerging Market -8.00%	Mid Cap Value 38.07%	Large Cap Value 16.49%	HFRI Equity Hedge 10.80%	Diversified Portfolio 16.94%	Commodity Futures 7.64%	Small Cap Core -33.79%	Diversified Portfolio 29.94%	Emerging Market 19.20%	Commodity Futures -9.26%	Small Cap Value 86.98%
Mid Cap Core 19.00%	Small Cap Core 22.36%	US Bond 0.00%	Small Cap Core 21.26%	Large Cap Value 7.01%	Emerging Market -2.37%	Diversified Portfolio -5.33%	REITs 37.14%	Diversified Portfolio 16.39%	Diversified Portfolio 9.70%	S&P 500 15.79%	Diversified Portfolio 7.28%	Commodity -36.06%	REITs 27.99%	Diversified Portfolio 19.08%	Mid Cap Value -1.38%	US Bond 70.00%
Diversified Portfolio 17.67%	REITs 20.28%	Commodity Futures 7.01%	S&P 500 21.04%	Cash 5.96%	World Bond xUS -3.54%	Mid Cap Value -9.66%	Diversified Portfolio 34.93%	Mid Cap Growth 15.48%	Large Cap Value 7.05%	Mid Cap Core 15.26%	Small Cap Growth 7.05%	Large Cap Value -36.85%	Small Cap Core 27.17%	Commodity 16.83%	Mid Cap Core -1.66%	Commodity Futures 74.03%
Mid Cap Growth 17.48%	Diversified Portfolio 18.88%	Diversified Portfolio 6.74%	Mid Cap Core 18.23%	Diversified Portfolio 1.74%	Diversified Portfolio -4.83%	Small Cap Value -11.43%	Large Cap Value 30.03%	Small Cap Growth 14.31%	Large Cap Growth 5.26%	Small Cap Growth 13.35%	US Bond 6.97%	S&P 500 -37.00%	S&P 500 26.46%	Large Cap Growth 16.71%	Mid Cap Growth -1.65%	Small Cap Core 72.78%
Small Cap Core 16.49%	Small Cap Growth 12.95%	Mid Cap Value 6.08%	Large Cap Value 7.35%	World Bond xUS -2.83%	Large Cap Value -5.59%	Large Cap Value -15.52%	Large Cap Growth 29.75%	World Bond xUS 12.14%	S&P 500 4.91%	HFRI Equity Hedge 11.71%	Mid Cap Core 5.60%	REITs -37.73%	HFRI Equity Hedge 24.57%	Large Cap Value 15.51%	Diversified Portfolio -2.51%	Mid Cap Growth 67.41%
Small Cap Growth 11.26%	Commodity Futures 10.89%	Cash 5.05%	Cash 4.74%	Small Cap Core -3.02%	Mid Cap Core -5.82%	International -15.94%	S&P 500 28.68%	S&P 500 10.88%	Small Cap Value 4.71%	Mid Cap Growth 10.86%	S&P 500 5.49%	Large Cap Growth -38.44%	Small Cap Value 20.58%	S&P 500 15.06%	Small Cap Growth -2.91%	International 67.78%
Commodity Futures 9.12%	US Bond 9.86%	Small Cap Growth 1.23%	Mid Cap Value -0.11%	S&P 500 -9.10%	Small Cap Growth -9.23%	Mid Cap Core -16.18%	Commodity 23.93%	Commodity 9.16%	Small Cap Core 4.55%	Large Cap Growth 9.07%	Cash 4.74%	Mid Cap Value -38.44%	Large Cap Value 19.69%	HFRI Equity Hedge 19.46%	Small Cap Core -4.18%	HFRI Equity Hedge 58.98%
International 6.06%	Cash 5.24%	Small Cap Core -2.55%	US Bond -0.82%	Mid Cap Growth -11.76%	S&P 500 -11.89%	Small Cap Core -20.48%	HFRI Equity Hedge 20.54%	HFRI Equity Hedge 7.88%	Small Cap Growth 4.15%	World Bond xUS 8.94%	Large Cap Value -0.17%	Small Cap Growth -38.54%	Commodity 18.91%	International 7.76%	Small Cap Value -5.50%	Small Cap Growth 55%
Emerging Market 6.03%	International 1.78%	Small Cap Value -8.46%	Commodity Futures -1.19%	International -14.17%	Commodity -15.57%	S&P 500 -22.10%	World Bond xUS 18.52%	Large Cap Growth 8.30%	Cash 3.00%	Cash 4.75%	Mid Cap Value -1.42%	Mid Cap Core -41.46%	US Bond 5.93%	Commodity Futures 7.06%	HFRI Equity Hedge -8.93%	Large Cap Value 46.62%
Cash 5.26%	Commodity -3.39%	REITs -17.51%	Small Cap Value -1.49%	Large Cap Growth -22.42%	Mid Cap Growth -20.16%	Mid Cap Growth -27.41%	Commodity Futures 8.89%	US Bond 4.34%	US Bond 2.43%	US Bond 4.33%	Small Cap Core -1.57%	International -43.38%	World Bond xUS 4.38%	US Bond 6.54%	International -12.14%	S&P 500 33.34%
World Bond xUS 4.19%	World Bond xUS -4.98%	Emerging Market -25.34%	REITs -4.82%	Small Cap Growth -22.43%	Large Cap Growth -30.26%	Large Cap Growth -27.88%	US Bond 4.10%	Commodity Futures 3.80%	Commodity Futures 1.79%	Commodity Futures 3.54%	Small Cap Value -9.78%	Mid Cap Growth -44.59%	Cash 0.18%	World Bond xUS 5.91%	Commodity -13.32%	Large Cap Growth 98.91%
US Bond 3.63%	Emerging Market -11.68%	Commodity -27.03%	World Bond xUS -6.07%	Emerging Market -30.61%	International -21.44%	Small Cap Growth -30.28%	Cash 1.07%	Cash 1.24%	World Bond xUS -9.20%	Commodity 2.07%	REITs -15.89%	Emerging Market -53.18%	Commodity Futures -0.10%	Cash 0.13%	Emerging Market -18.17%	Cash 20.17%

Table source: Russell Mellon Analytical Services. Data as of 12/30/11. The indexes used are the following: Large Cap Growth – Russell 1000 Growth Index; Large Cap Value– Russell 1000 Value Index; Mid Cap Growth – Russell Mid Cap Growth Index; Mid Cap Value – Russell Mid Cap Value Index; Mid Cap Core – Russell Mid Cap Index; Small Cap Growth – Russell 2000 Growth Index; Small Cap Value – Russell 2000 Value Index; Small Cap Core – Russell 2000 Index; International Equity – Morgan Stanley Capital International Europe, Australasia, Far East Index (EAFE) Net; US Bonds – Barclays Capital Aggregate Bond Index; S&P 500 – Standard & Poor's 500 Index; HFRI - HFRI Equity Hedge Index; Commodity – DJ-UBS Commodity Index (do not have full year performance of 1991); Commodity Futures – Barcap CTA; World Bond xUS – Citi Group WGBI xUS; REITS – FTSE NAREIT All Equity REITs; Cash – Citi Group 3 Month T-Bill; Emerging Market – MSCI EM; Diversified Portfolio - Equal weighted of all segments disclosed above, excluding cash.

* DJ-UBS Commodity Index has only 19 years data.

UBS

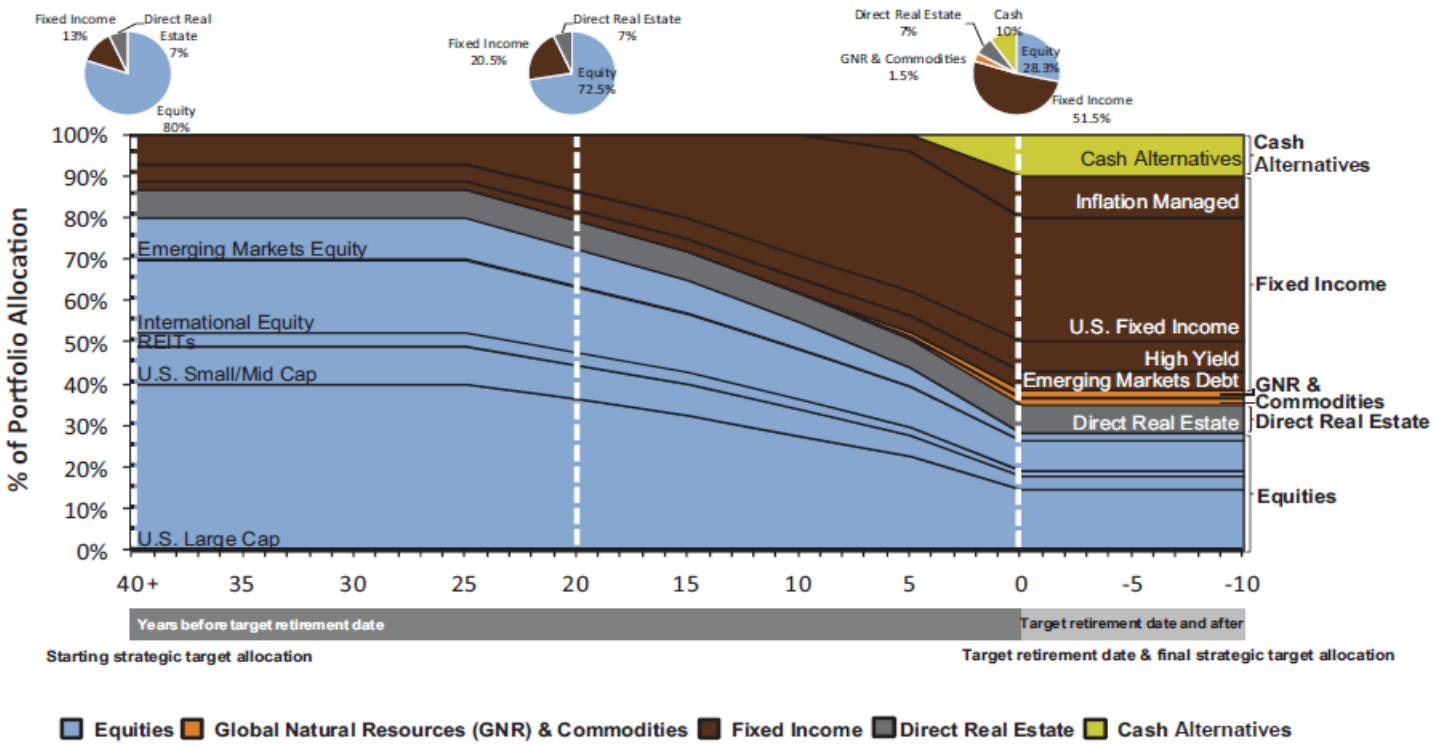
Asset allocation does not assure profits or prevent against losses in declining markets.

Sample Asset Allocation Models

	Conservative	Income/ Moderate Growth	Balanced	Growth	Aggressive Growth
Cash					
Money Markets	5%	4.0%	3%	2.5%	1.5%
Fixed Income					
U.S. Investment Grade					
- *Taxable/Tax Exempt*	51%	41.0%	31%	21.5%	13.5%
High Yield Bonds	2%	2.5%	3%	3.0%	2.5%
Emerging Market Debt	2%	2.5%	3%	3.0%	2.5%
Equity					
U.S. Large Cap	14%	17.5%	21.0%	23.5%	26.0%
U.S. Mid/Small Cap	5%	6.0%	7.5%	10.0%	12.0%
Non-U.S. Developed	10%	12.5%	16.5%	20.5%	24.5%
Non-U.S. Emerging	3%	4.0%	5.0%	6.0%	7.0%
Long-Short	2%	2.0%	2.0%	1.5%	1.5%
Equity Income	3%	4.0%	4.0%	4.0%	4.0%
Commodity Funds	3%	4.0%	4.0%	4.5%	5.0%
Total	100%	100%	100%	100%	100%

Target Retirement Date Funds

JP Morgan Retirement Target Date Funds



See BC Center for Retirement Research:
http://crr.bc.edu/special-projects/books/managing-your-money-in-retirement-2/

Social Security

Social Security

Normal Retirement Age

Year of Birth	Full Retirement Age
1943-1954	66
1955	66 and 2 months
1956	66 and 4 months
1957	66 and 6 months
1958	66 and 8 months
1959	66 and 10 months
1960 or later	67

Social Security

- Full Benefit at Normal Retirement Age
  - The maximum monthly benefit for 2013 is $2,533
- May collect a reduced benefit as early as age 62
  - 5/9th of 1% per month for first 36 months
  - 5/12ths of 1% per month for each additional month
- May delay receipt of benefits until age 70
  - 8% per year increase for those born 1943 or later
- See BC's Center for Retirement Research:
  - http://crr.bc.edu/special-projects/books/the-social-security-claiming-guide/

Social Security – Reduction for Continued Earnings

- If you collect a benefit before your normal retirement age, the benefit is reduced by $1 for every $2 in earnings above an annual limit.
  - The 2013 limit is $15,120
- In the year you reach normal retirement age, the benefit is reduced by $1 for every 3 of earnings above the limit until the month you reach normal retirement age.
- There is no reduction in benefits once you reach normal retirement age.
- Example:
  - A worker starts collecting Social Security at age 62 in 2013; the benefit is $1,000/mo or $12,000 per year
  - Normal retirement age is 66
  - The worker earns $25,120 in wages, $10,000 over the limit
  - The Social Security benefit will be reduced by $5,000 for the year

Social Security Spousal Benefit

- At retirement, a spouse may collect the greater of his or her own Social Security benefit or 50% of the other spouse's benefit.
- Spousal benefits are reduced for early retirement or increased for delayed retirement in the same manner as with the primary benefit.
- When the spouse earning the primary benefit dies, the surviving spouse may step up to the primary benefit.

Social Security

When to Collect Benefits?

- In general, don't collect benefits if they'll be reduced by continued earnings in excess of the annual limit
- Wait until normal retirement age (NRA) if you believe you'll live into your early 80s.
- Wait until age 70 if you believe you'll live into your mid 80s.
- At your NRA, your spouse may collect the spousal benefit even if you have elected to suspend your own benefits until age 70.
- If you have reached NRA, you can claim a spousal benefit and then switch to your own record at a later date.
  - H & W are both age 66 and at NRA
  - H's benefit is $1,400 per month while W's is $1,000
  - H files for benefits, but defers to age 70.
  - W can receive $700/month (50% of H's benefit) until age 70 and then switch to her own higher benefit of 132% of the NRA benefit (8% per year for 4 years), or $1,320/mo before COLAs

Social Security Benefit Analysis*

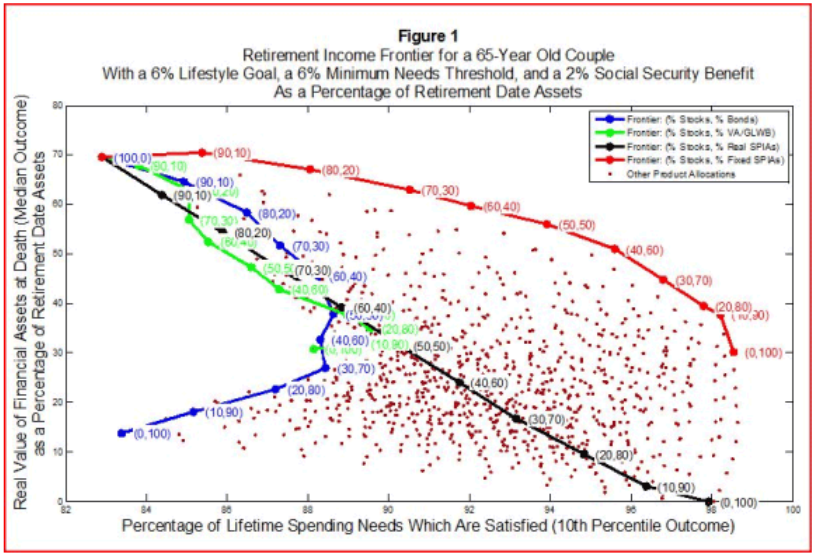
Age	Pre-tax Benefit	After Tax Benefit	PV @ 4%	Pre-tax Benefit	After Tax Benefit	PV @ 4%	Pre-tax Benefit	After Tax Benefit	PV @ 4%	Maximum PV	Starting Age
62	21,277	15,852	15,852	-	-	-	-	-	-	15,852	62
63	21,703	16,169	31,398	-	-	-	-	-	-	31,398	62
64	22,137	16,492	46,646	-	-	-	-	-	-	46,646	62
65	22,580	16,822	61,600	-	-	-	-	-	-	61,600	62
66	23,031	17,158	76,267	-	-	-	-	-	-	76,267	62
67	23,492	17,501	90,652	33,560	25,002	20,550	-	-	-	90,652	62
68	23,962	17,851	104,760	34,231	25,502	40,704	-	-	-	104,760	62
69	24,441	18,208	118,597	34,915	26,012	60,471	-	-	-	118,597	62
70	24,930	18,573	132,168	35,614	26,532	79,858	44,161	32,900	24,040	132,168	62
71	25,428	18,944	145,478	36,326	27,063	98,872	45,044	33,558	47,617	145,478	62
72	25,937	19,323	158,532	37,053	27,604	117,521	45,945	34,229	70,741	158,532	62
73	26,456	19,709	171,335	37,794	28,156	135,810	46,864	34,914	93,420	171,335	62
74	26,985	20,104	183,891	38,549	28,719	153,748	47,801	35,612	115,664	183,891	62
75	27,524	20,506	196,206	39,320	29,294	171,341	48,757	36,324	137,479	196,206	62
76	28,075	20,916	208,285	40,107	29,880	188,596	49,733	37,051	158,875	208,285	62
77	28,636	21,334	220,131	40,909	30,477	205,519	50,727	37,792	179,859	220,131	62
78	29,209	21,761	231,749	41,727	31,087	222,117	51,742	38,548	200,440	231,749	62
79	29,793	22,196	243,144	42,562	31,708	238,395	52,777	39,319	220,625	243,144	62
80	30,389	22,640	254,319	43,413	32,343	254,360	53,832	40,105	240,422	254,360	67
81	30,997	23,093	265,280	44,281	32,990	270,018	54,909	40,907	259,838	270,018	67
82	31,617	23,555	276,030	45,167	33,649	285,375	56,007	41,725	278,881	285,375	67
83	32,249	24,026	286,573	46,070	34,322	300,437	57,127	42,560	297,558	300,437	67
84	32,894	24,506	296,914	46,992	35,009	315,209	58,270	43,411	315,875	315,875	70
85	33,552	24,996	307,055	47,931	35,709	329,697	59,435	44,279	333,840	333,840	70
86	34,223	25,496	317,002	48,890	36,423	343,907	60,624	45,165	351,460	351,460	70
87	34,908	26,006	326,757	49,868	37,152	357,843	61,836	46,068	368,741	368,741	70
88	35,606	26,526	336,325	50,865	37,895	371,511	63,073	46,989	385,689	385,689	70
89	36,318	27,057	345,709	51,883	38,652	384,916	64,334	47,929	402,312	402,312	70
90	37,044	27,598	354,912	52,920	39,426	398,064	65,621	48,888	418,615	418,615	70
91	37,785	28,150	363,938	53,979	40,214	410,959	66,933	49,865	434,604	434,604	70

**** NRA age 67, 2% inflation, 30% income tax rate on 85% of benefit, 4% discount rate, normal benefit of $2,533***

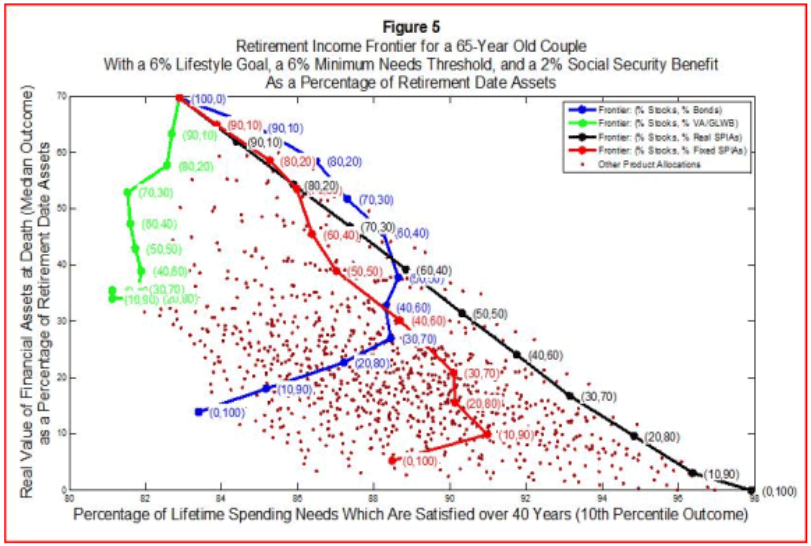
Asset Draw Down

Draw Down Rates

Extensive research has been done on safe draw down rates in retirement



2.1% Inflation Assumption



4% Inflation Assumption

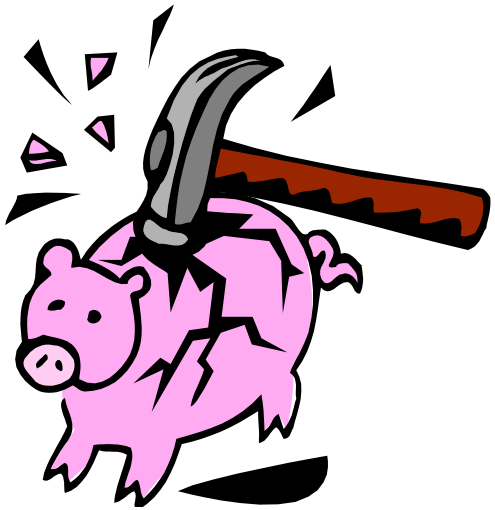
Graphs taken from: "*Breaking Free from the Safe Withdrawal Rate Paradigm: Extending the Efficient Frontier for Retirement Income*" by Wade Pfau, AdvisorPerspectives.com.

Draw Down Rates

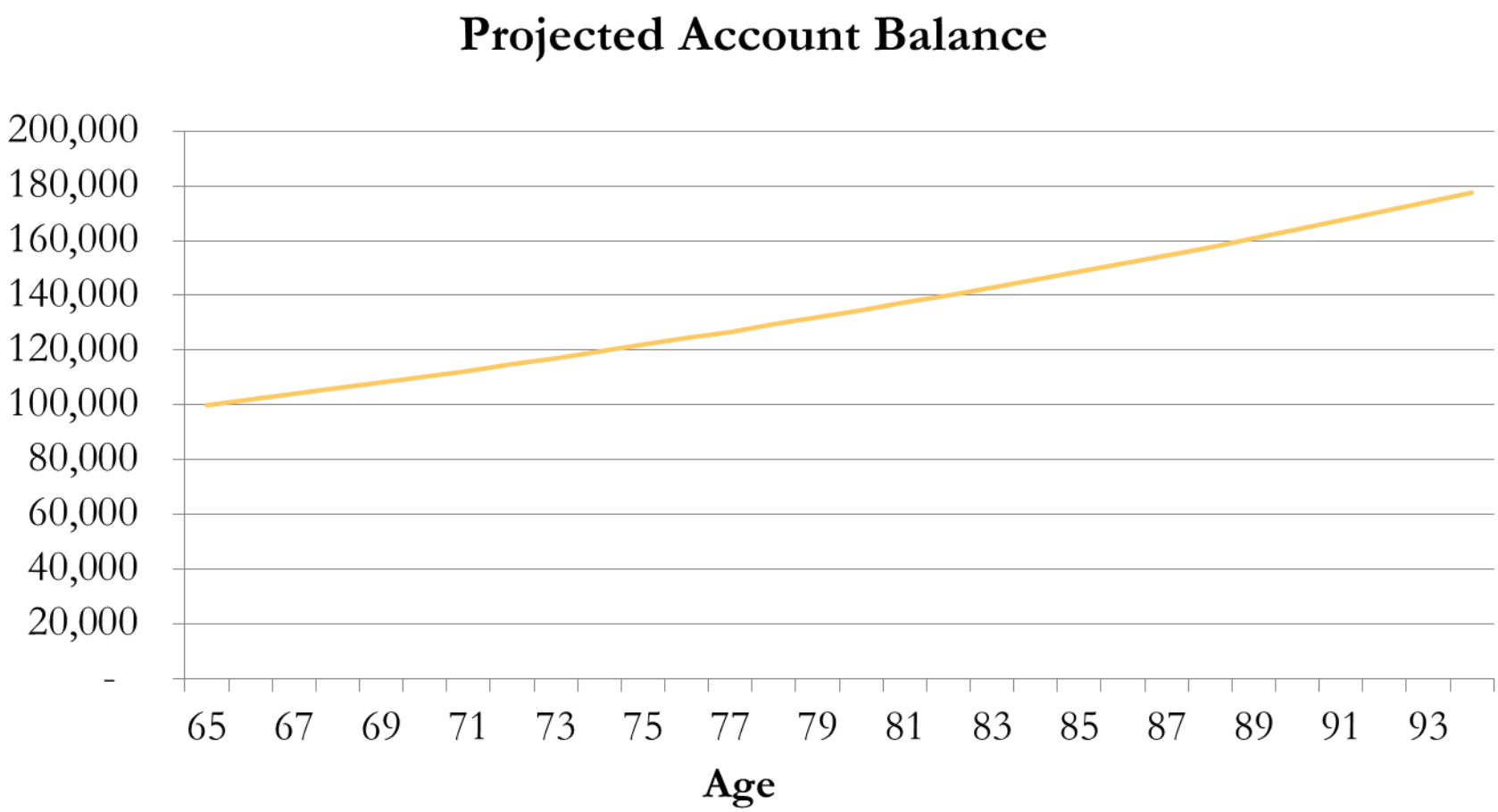
"It's too late for me now; I have what I have. How much can I spend?"

<u>"Safe" Draw Down Rate in Perpetuity</u>

- In theory, your funds should never run out and your spending should keep up with inflation if you withdraw no more than:
  - the gross investment return minus the inflation rate
- For example:
  - If your gross investment return is 6% and inflation is 2%, you can withdraw 4% of your balance (6% - 2%).
    - Income taxes on the 6% investment return must be paid from the funds withdrawn.



“Safe” Draw Down of $100,000*



- ***6% Gross investment return, 4% annual draw down ($4,000)***

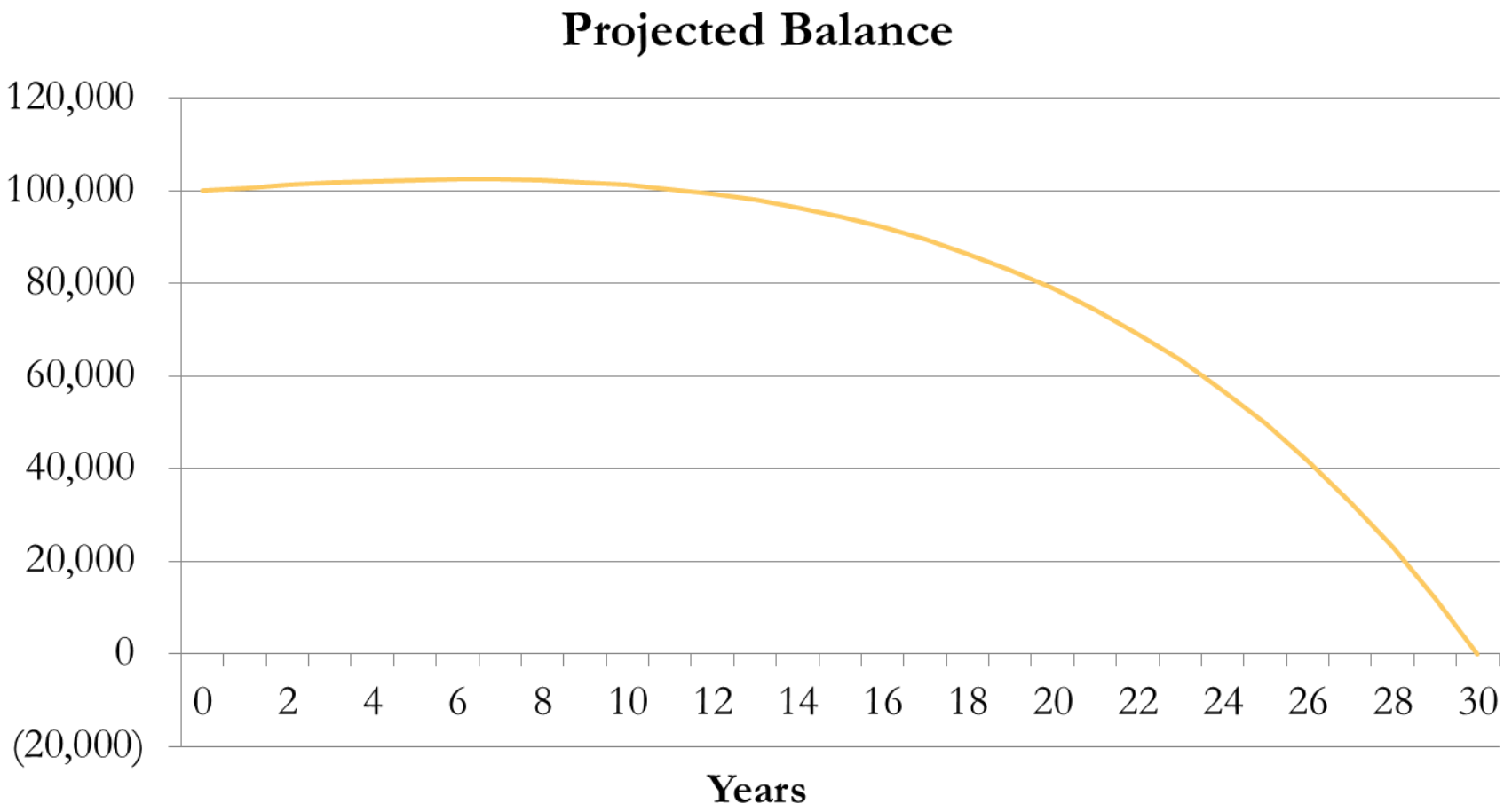
Draw Down Rates When Spending Principal *

"I put my kinds through college and they'll get my house. I don't care if I leave them anything else."

	Pre-tax Investment Return						
Yrs. in Ret.	**4%**	**5%**	**6%**	**7%**	**8%**	**9%**	**10%**
10	11%	11%	12%	12%	13%	13%	14%
15	8%	8%	9%	9%	10%	10%	11%
20	6%	6%	7%	8%	8%	9%	9%
25	5%	6%	6%	7%	7%	8%	9%
30	4%	5%	6%	6%	7%	7%	8%
35	4%	4%	5%	6%	6%	7%	8%
40	4%	4%	5%	5%	6%	7%	8%
45	3%	4%	5%	5%	6%	7%	8%

- ***Assumes 2% cost of living increases.***

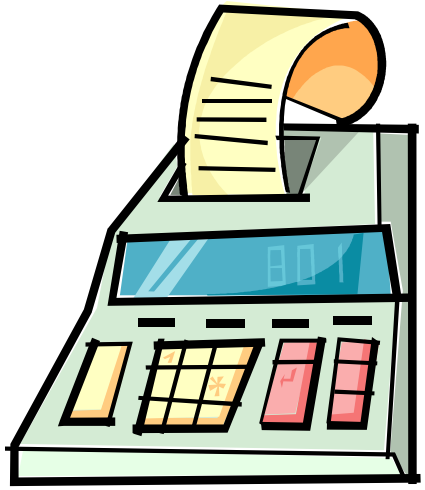
Draw Down on $100,000 When Spending Principal *



- ***Retire age 65, 30 year life expectancy, 8% investment return, 2% cost of living increases, 6.78% draw down rate ($6,780).***

Problems with Formulaic Draw Down Rates

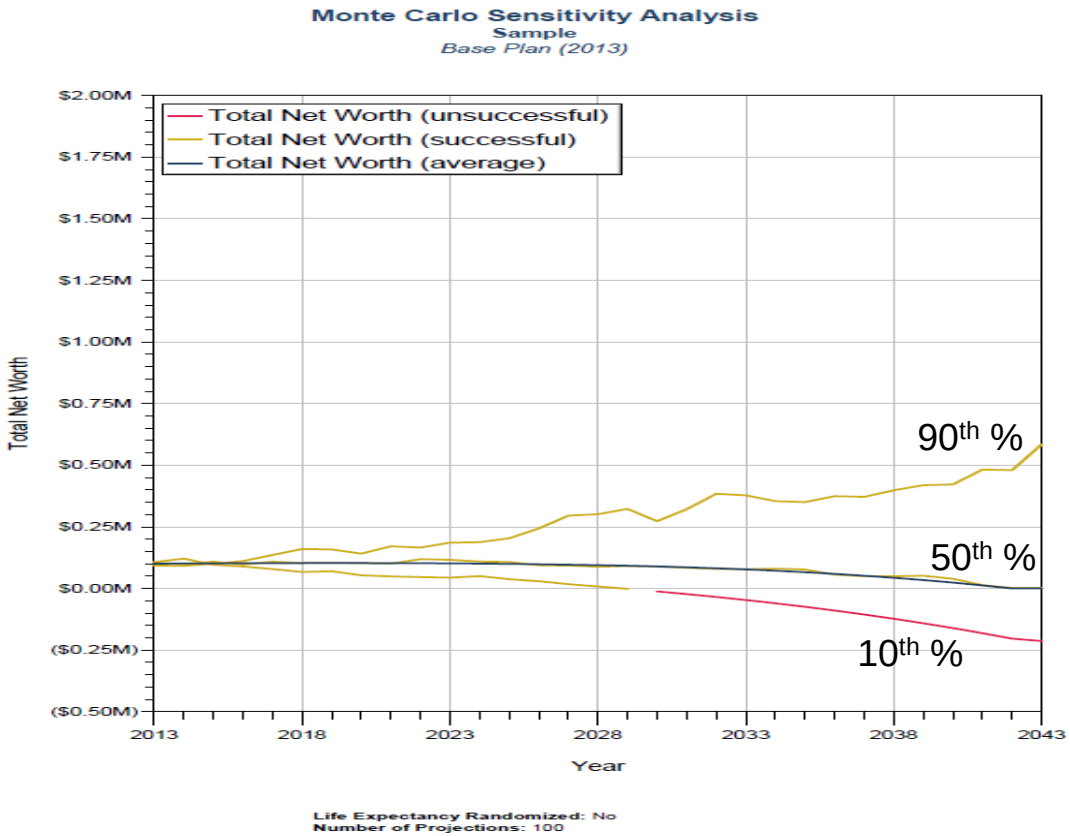
- You cannot know in advance what investment returns and inflation rates will be.
  - What if the inflation rate exceeds the gross return?
  - What if your portfolio loses money?
  - Is your only option to invest in completely safe investments that is likely produce little return?
    - i.e., short term U.S. government bonds



- What if something unexpected happens?
  - An unusual expense?
  - You live too long?
  - A prolonged market decline?

- No draw down formula is safe indefinitely
  - **You *must* periodically update your retirement plan**

Monte Carlo Sensitivity Analysis *



- ***Assumes 8% investment return, 11.84% volatility, initial 6.78% draw down, 2% cost of living increases, 30-year draw down period.***

Rules of Thumb for Draw Downs

Maximize income tax deferral

- In general, spend already taxed assets first upon retirement
- Postpone distributions from IRAs and qualified plans for as long as possible
  - Required minimum distributions (RMDs) from regular IRAs and qualified plans begin at age 70 ½
    - RMDs from a qualified plan may be postponed if the participant is still employed by the sponsoring employer and not considered "retired" under the terms of the plan.
    - Participant may elect to postpone first RMD into the next tax year and take two distributions that year.
      - Decision depends upon tax rate differential in the two calendar years
  - Take only RMDs unless more is required.
    - Reconsider if income tax rates are expected to increase <u>significantly</u> in the future and the participant is already taking large distributions
- Spend Roth assets last
  - There are no required distributions from a Roth IRA, but there are RMDs from a Roth 401(k)
    - Roll your Roth 401(k) into a Roth IRA upon termination or retirement

Other Retirement Planning Considerations

- Medicare supplement insurance
- Long term care insurance
- Change of domicile
- Defined benefit pension distribution options

IRS Circular 230 Disclosure

To ensure compliance with requirements imposed by the IRS, we inform you that any U.S. tax advice contained herein is not intended or written to be used, and cannot be used by any taxpayer, for the purpose of avoiding U.S. tax penalties.