Making Retirement Work

Francis J. Sennott

March 12, 2013
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

US Population Age 65+ (Millions)

- 1990: 31.2
- 2000: 35.0
- 2010: 40.2
- 2020E: 54.6
- 2030E: 71.5
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](http://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://crr.bc.edu/special-projects/interactive-tools/target-your-retirement)
  - [http://squaredawayblog.bc.edu/curious/](http://squaredawayblog.bc.edu/curious/)
Savings for Retirement
Start Saving Early

Twin Sisters:

**Janet**
Invests $2,000 per year for 10 years from age 21 to 30
*Earns a 7% annual return*

At age 65 $316,000

**Joan**
Invests $2,000 per year for 35 years from age 31 to 65
*Earns a 7% annual return*

At age 65 $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***

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<thead>
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<th>4%</th>
<th>5%</th>
<th>6%</th>
<th>7%</th>
<th>8%</th>
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<th>10%</th>
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<td>25</td>
<td>32%</td>
<td>23%</td>
<td>16%</td>
<td>12%</td>
<td>8%</td>
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<tr>
<td>30</td>
<td>37%</td>
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<td>26%</td>
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<tr>
<td>45</td>
<td>70%</td>
<td>56%</td>
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<td>36%</td>
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<td>65%</td>
<td>54%</td>
<td>45%</td>
<td>38%</td>
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<tr>
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<td>124%</td>
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<td>89%</td>
<td>77%</td>
<td>66%</td>
<td>57%</td>
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<tr>
<td>60</td>
<td>303%</td>
<td>261%</td>
<td>226%</td>
<td>197%</td>
<td>174%</td>
<td>154%</td>
<td>137%</td>
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</table>

- 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

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<thead>
<tr>
<th></th>
<th>Traditional 401(k)</th>
<th>Roth 401(k)</th>
<th>Roth Advantage</th>
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<td><strong>2012 Contribution</strong></td>
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<td>$15,000</td>
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<tr>
<td><strong>Held Back to Pay Tax (33%)</strong></td>
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<td>($5,000)</td>
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<td><strong>Final Contribution</strong></td>
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<td>2x (7.18%/Yr)</td>
<td>2x (7.18%/Yr)</td>
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<tr>
<td><strong>Balance After 10 Years</strong></td>
<td>$30,000</td>
<td>$20,000</td>
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<tr>
<td><strong>Tax Due on Liquidation</strong></td>
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<tr>
<td>Case 1. 25% Rate</td>
<td>($7,500)</td>
<td>$0</td>
<td></td>
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<tr>
<td>Case 2. 33% Rate</td>
<td>($10,000)</td>
<td>$0</td>
<td></td>
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<tr>
<td>Case 3. 40% Rate</td>
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<td>$0</td>
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<tr>
<td><strong>Liquidation Value</strong></td>
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<td>Case 1. 25% Rate</td>
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<td>$20,000</td>
<td>($2,500)</td>
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<tr>
<td>Case 2. 33% Rate</td>
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<td>Case 3. 40% Rate</td>
<td>$18,000</td>
<td>$20,000</td>
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## Source of Funds to Pay Tax Liability

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<th>Traditional 401(k)</th>
<th>Taxable Side Fund</th>
<th>Roth 401(k)</th>
<th>Taxable Side Fund</th>
<th>Roth Advantage</th>
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<td>$5,000</td>
<td>$15,000</td>
<td>$5,000</td>
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<tr>
<td><strong>Liquidated to Pay Tax (33%)</strong></td>
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<td>$0</td>
<td>$(0)</td>
<td>$(5,000)</td>
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<tr>
<td><strong>Balance</strong></td>
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<tr>
<td><strong>Growth After 10 Years</strong></td>
<td>2x</td>
<td>1.7x</td>
<td>2x</td>
<td>(7.18%/Yr)</td>
<td>(5.45%)</td>
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<tr>
<td><strong>Balance After 10 Years</strong></td>
<td>$30,000</td>
<td>$8,500</td>
<td>$30,000</td>
<td>$30,000</td>
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<tr>
<td><strong>Tax Due on Liquidation</strong></td>
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<tr>
<td><em>Case 1. 25% Rate</em></td>
<td>($7,500)</td>
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<tr>
<td><em>Case 2. 33% Rate</em></td>
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<td><strong>Liquidation Value</strong></td>
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<td><em>Case 1. 25% Rate</em></td>
<td>$20,000</td>
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<td><em>Case 3. 40% Rate</em></td>
<td>$18,000</td>
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<td>$30,000</td>
<td>$30,000</td>
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</table>
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
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 decide 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.
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
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**

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

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<th>Year</th>
<th>Age</th>
<th>Outlay</th>
<th>Benefit</th>
<th>Recovery</th>
<th>Tax at 33%</th>
<th>After Tax Benefit</th>
<th>IRR</th>
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<td>90</td>
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<td>94</td>
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<td>6,072</td>
<td>-</td>
<td>(2,004)</td>
<td>4,068</td>
<td>3.35%</td>
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Benefit figures from [www.immediateannuities.com](http://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
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)

Table source: Russell Investments. Data as of 12/31/11. 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; Small Cap Growth – Russell 2000 Growth Index; Small Cap Value – Russell 2000 Value Index; Small Cap Core – Russell 2000 Core Index; International Equity – Morgan Stanley Capital International World Index, Emerging Markets ETF, MSCI EAFE, EAFE Index, US Bond Indexes – Lehman Aggregate Bond Index, US REITs – FTSE NAREIT All Equity REITs, Cash – Citigroup 3 Month T-Bill, Emerging Markets – MSCI EM, Diversified Portfolio – Equal weighted of all segments described above, excluding cash.

* Diversified index has only 10 years.

The best performance of an index is not a guarantee of how your portfolio will perform. Indicators are not available for direct investment and reflect an unmanaged universe of securities, which does not take into account advisory or transaction fees, all of which will reduce the overall return. Prepared by UBS Financial Services Inc. Manager Research Group. All rights reserved. Used with permission.

Asset allocation does not assure profits or prevent against losses in declining markets.
## Sample Asset Allocation Models

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<th></th>
<th>Conservative</th>
<th>Income/ Moderate Growth</th>
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<th>Aggressive Growth</th>
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<tr>
<td>Non-U.S. Emerging</td>
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<td>2.0%</td>
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<tr>
<td><strong>Total</strong></td>
<td>100%</td>
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<td>100%</td>
<td>100%</td>
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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
## Normal Retirement Age

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<th>Year of Birth</th>
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<td>1943-1954</td>
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<tr>
<td>1955</td>
<td>66 and 2 months</td>
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<tr>
<td>1956</td>
<td>66 and 4 months</td>
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<tr>
<td>1957</td>
<td>66 and 6 months</td>
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<td>1958</td>
<td>66 and 8 months</td>
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<tr>
<td>1959</td>
<td>66 and 10 months</td>
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<tr>
<td>1960 or later</td>
<td>67</td>
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</tbody>
</table>
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
  - 5/9\(^{th}\) 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:
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.
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

<table>
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<tr>
<th>Age</th>
<th>Pre-tax Benefit</th>
<th>After Tax Benefit</th>
<th>PV @ 4%</th>
<th>Pre-tax Benefit</th>
<th>After Tax Benefit</th>
<th>PV @ 4%</th>
<th>Pre-tax Benefit</th>
<th>After Tax Benefit</th>
<th>PV @ 4%</th>
<th>Maximum Benefit</th>
<th>Starting Age</th>
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<td>15,852</td>
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* NRA age 67, 2% inflation, 30% income tax rate on 85% of benefit, 4% discount rate, normal benefit of $2,533
Asset Draw Down
Extensive research has been done on safe draw down rates in retirement.

“It’s too late for me now; I have what I have. How much can I spend?”

“Safe” Draw Down Rate in Perpetuity

- 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)
“I put my kinds through college and they’ll get my house. I don’t care if I leave them anything else.”

<table>
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<th>Yrs. in Ret.</th>
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<th>5%</th>
<th>6%</th>
<th>7%</th>
<th>8%</th>
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<td>12%</td>
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<tr>
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<td>8%</td>
<td>8%</td>
<td>9%</td>
<td>9%</td>
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- 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.
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 significantly 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
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.