What is sustainable investing?

- Sustainable investing is an umbrella term used to describe the five ways in which an investor may allocate capital to reflect non-investment related goals or values
- It often incorporates a commitment to concurrently improve investment risk-return profiles, mitigate reputational risk and support responsible capitalism

Sustainable Investing

Exclusionary Screening
Avoid investing in companies or sectors whose products or business practices do not align with investor values or meet other norms or standards
Example: Excluding alcohol, weapons or tobacco companies from a portfolio

ESG Integration
Actively integrate consideration of environmental, social and governance issues into investment due diligence and financial analysis
Example: Investing in companies with strong supply chain management, employee safety and board structure

Positive Screening
Passively screen for companies deemed well performing on certain environmental, social and governance measures
Example: Investing in ESG indices such as the MSCI KLD 400

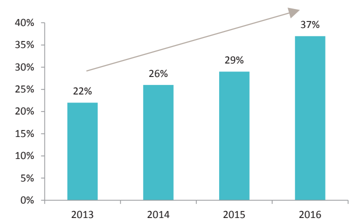
Thematic
Focus on investing in companies that provide solutions in specific areas such as water and clean energy
Example: Investing in a company that generates revenue by supporting energy efficiency

Impact Investing
Investing in projects with the intention of generating positive social and/or environmental impact alongside financial return
Example: Investing in a private debt offering that supports development of clean water access

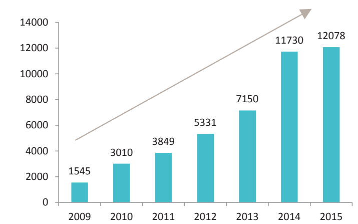
Managers are increasingly focused on incorporating sustainability into investment decisions

- Many investors now look at environmental, social and governance factors to minimize reputational and operational risk[1]
- Issues such as board accountability, the environment, executive compensation and alignment with shareholders are common considerations in the investment process
- Today, there are believed to be 350 equity funds classified as ESG with a combined AUM of $111 billion globally[1]

PERCENTAGE OF FUNDS INCORPORATING ESG INTO INVESTMENT PROCESS[2]



BLOOMBERG CUSTOMERS ACCESSING ESG DATA[3]

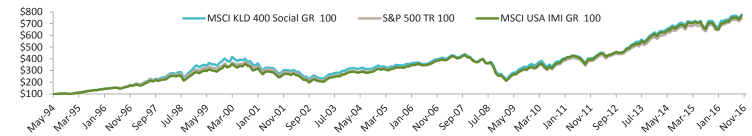


1. JPMorgan Global Quantitative & Derivatives Strategy. "ESG – Environmental, Social & Governance Investing."
2. Callan Associates: "2016 ESG Interest and Implementation Survey." Data collected from 84 unique institutional U.S. funds representing approximately $843 billion in assets.
3. Callan Associates: "2015 ESG Interest and Implementation Survey." Data collected from 242 U.S. Funds and Trusts that represent $2.4 trillion in AUM.

Myth #1 – "Investors sacrifice return by investing sustainably"

- Sustainable investing strategies have historically provided returns in line with their respective benchmarks and have the potential to produce enhanced returns
- In fact, J.P. Morgan Research shows that incorporating ESG factors into the investment process can actually enhance portfolios by reducing volatility, increasing Sharpe ratios and limiting drawdowns[1]

CHARTING PERFORMANCE IN PUBLIC EQUITIES[1]



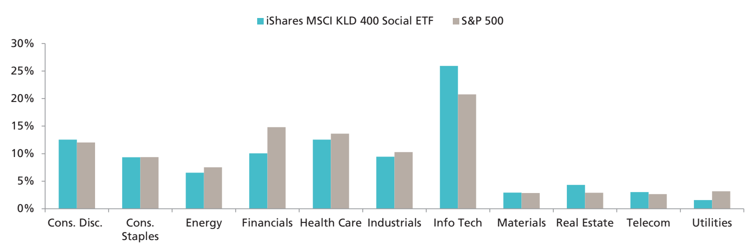
Performance (since inception annualized returns for the ESG indices)[2]			
MSCI KLD 400 Social*	10.13%	S&P 500 TR Index	9.69%
MSCI EAFE ESG Index**	5.91%	MSCI EAFE Index	5.10%
MSCI ACWI ESG Index***	3.02%	MSCI ACWI Index	2.21%

1. Past performance is no guarantee of future results.
2. Bloomberg. Performance of MSCI KLD 400, S&P 500 TR 5/31/1994 through 11/30/2016.
3. JPMorgan Global Quantitative & Derivatives Strategy. "ESG – Environmental, Social & Governance Investing."

Myth 3: "Sustainable investing will cause a portfolio to look very different from the benchmark, limiting the ability to outperform"

- Integrating ESG factors into the investment process does not necessarily mean limited or no exposure to certain sectors (e.g. no exposure to energy)
- Strategies that integrate ESG factors into the investment process can be well-diversified
- J.P. Morgan's due diligence process emphasizes finding managers that provide risk-return profiles similar to traditional benchmarks , thereby limiting performance dispersion relative to the benchmark

SECTOR EXPOSURE: MSCI KLD 400 VS. S&P 500[1]



1. FactSet. As of 12/30/2016.

How we select managers

- Our selection criteria goes beyond screening for past performance to offer our clients access to compelling investment strategies and managers
- Our manager selection team considers specific sustainable investing criteria through our due diligence process

PEOPLE	PHILOSOPHY	PROCESS	PERFORMANCE

SCREENING FOR SUSTAINABLE INVESTING MANAGERS

• Experience with sustainable investing • Dedicated resources to sustainable investing • A firm-wide commitment to sustainable investing	• Sustainable investing framework that fits the investment philosophy • Process for developing a process around integrating ESG factors and explaining how that process has evolved	• Portfolio construction approach to: – Incorporate ESG factors – Develop exclusionary screens – Account for excluded securities	• Track record in adding value through sustainable investing • Experience with performance implications of exclusionary screens

J.P. Morgan Capabilities: Exclusionary Screening

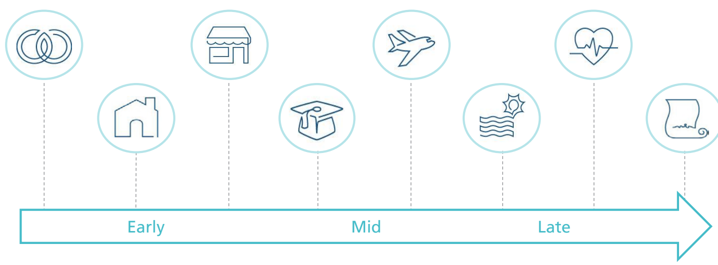
- Avoids companies or sectors involved in certain activities that do not align with investor values or comply with other norms or standards
- Clients can choose from standardized screens or customize based on specific preferences

J.P. MORGAN EXCLUSIONARY CAPABILITIES INCLUDE:

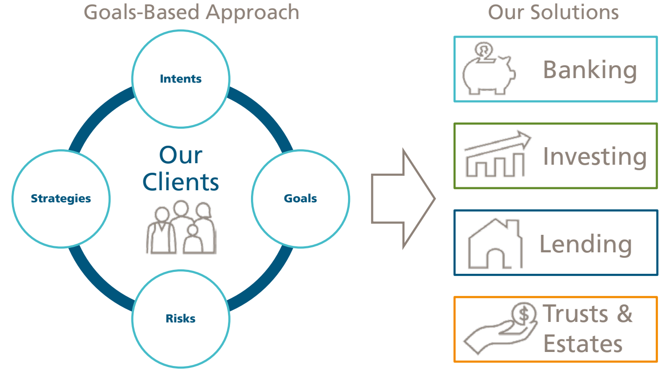
- FAITH-BASED
- FOSSIL FUELS
- TOBACCO
- ALCOHOL
- GAMBLING
- WEAPONS

Our clients' intents and goals evolve throughout their lives

And it is critical that the advice that we provide is aligned to these changing intents and goals

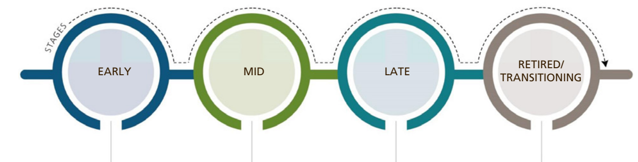


Understanding our clients' intents & goals leads to a deeper relationship



3 REVISIT

Taking a goals-based approach with a business owner



	EARLY	MID	LATE	RETIRED/ TRANSITIONING
ASSET PROFILE	• Capital growth and accumulation • Focus on liquidity	• Capital preservation • Alternative investment or real estate	• Focus on divesting or sale of business • Reinvestment	• Annuitized income from portfolio • Decumulation strategies to provide income
LIABILITY PROFILE	• Mortgage • Lines of credit • Business loans	• Debt consolidation/reduction • Structured/customized lending	• Debt optimization/ management • Mortgage (2nd/3rd home)	• Structured/customized lending
TAX-PLANNING TECHNIQUES	• Retirement or education vehicles • Basic business and estate planning	• Establish family wealth strategies • Trust & Estate planning	• Philanthropy (corporate and personal) • Complex wealth optimization strategies	• Tax-aware distribution (e.g., RMDs), giving and investment strategies
CASH FLOW CONSIDERATIONS	• Manage inflows and outflows (from budgeting to planning) • Establish personal and business goals	• Cash flow projections and probability of success • Rearticulation of goals for personal and business wealth	• Adjust to manage to or reflect primary intent • Manage cash flow risk (over-giving/spending)	• Wealth sustainability • Impact of wealth on family

*NOTE: Insurance should be considered at every stage.

Tear-out sheet

Next steps and additional resources

1 Immediate Next Steps

- Log into the Training environment using your SSO credentials
  - Click here for the training environment
    - Create a plan using your own *anonymized* financial data
    - Consider creating a separate plan using *anonymized* client data
- If you encounter Issues accessing the training environment, send an email to the Q&A Mailbox

2 Invitation will come from your Wealth Strategist

National WebEx Training
- 5 sessions (30 minutes each), led by Dan Hauschild, Wealth Strategist
  - Session 1: April 2nd
  - Session 2: April 3rd
  - Session 3: April 4th
  - Session 4: April 5th
  - Session 5: April 6th
- All sessions will be recorded and available for viewing at a future date

Office Hours (Phase 1)
- 3 hours per day for the first week beginning April 2
- Morning / Afternoon Sessions will be available (via call in phone number)
- Staffed for high volume / rapid response

Office Hours (Phase 2)
- 30 minute sessions beginning second week of April
- Focusing on FAQs and other highlights
- Additional sessions to be scheduled based on market demand

Monday	Tuesday	Wednesday	Thursday	Friday
4/2	4/3	4/4	4/5	4/6
National WebEx Training				
Office Hours (Phase 1)				
4/9	4/10	4/11	4/12	4/13
Office Hours (Phase 2)				
4/16	4/17	4/18	4/19	4/20
Office Hours (Phase 2)				
4/23	4/24	4/25	4/26	4/27

Tear-out sheet

How to take a goals-based approach with your clients

Understand what you want to accomplish with your money

Build a strategy that best helps you address your needs, concerns and goals

Check in regularly to ensure that you are on track and aligned to your strategy

- What is the primary intent for your wealth?
- Do you feel that you have enough?
- How familiar are you with investing?
- Are you comfortable with the ups and downs of markets?
- A lot has been going on in the markets since we last met. Have any of your goals changed?
- Is there anything else I can do to give you greater peace of mind about your wealth?

Tear-out sheet

Goals-Based Approach Framework

Intent	Goals	Risks	Strategies	Solutions
1 SPEND	Maintain lifestyle through retirement	Age: Clients could outlive their money	• IRAs • Taxable investment accounts	• Managed portfolio • Brokerage accounts
	Fund children's private education	Clients did not start saving early enough	• 529s • Trusts	• Available investment options
2 DIVIDE	Leave a bequest to my children	Outdated beneficiary designation or incorrect titling	• Wills • Basic trusts	• Insurance • Investment accounts
	Have a certain amount of money left	Inappropriate asset allocation	• Investment accounts	• Cash • Fixed income
3 PRESERVE	Sustain wealth across multiple generations	Misaligned family goals or culture	• GST/Dynasty trusts	• Trusts & Estates services
	Leave a specific amount of money to charity	Outdated will or estate plan	• Foundation • Donor-advised fund	• Charitable trusts • Investment accounts
4 GROW	Create a family enterprise that lives on for generations	Lack of appropriate succession planning	• Complex entity structures	• Alternative investments
	Set up a family office to manage my wealth	Misaligned family goals or culture	• Complex entity structures	• Complex or bespoke solutions

J.P. Morgan Capabilities: Environmental, Social, Governance (ESG) Factor Integration

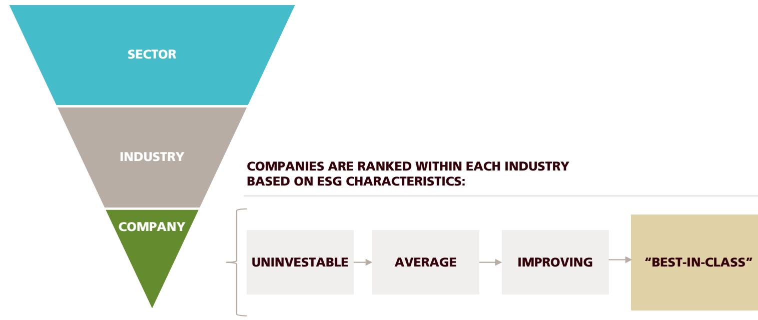
- Involves the consideration of ESG issues into investment due diligence and analysis
- J.P. Morgan offers strategies across asset classes that integrate ESG factors into the investment process

ENVIRONMENTAL	SOCIAL	GOVERNANCE
Greenhouse gas emissions, energy efficiency, water and waste management, compliance with environmental policies and regulations, environmental reporting and disclosure	Health, education and safety, compensation and benefits, community relations, employee diversity and human rights, product safety	Board structure, accountability and diversity, executive compensation, ethics and risk management, reporting and disclosure

Sources: ESG Managers Portfolios; Morningstar, Pax; www.esgmanagers.com/sustainable_investing/what_is_esg

J.P. Morgan Capabilities: Positive Screening

- Positive screening is an extension of ESG integration that focuses on tilting a portfolio towards companies identified as positive performers relative to industry peers
- J.P. Morgan offers a suite of strategies that take a systematic approach to positive screening and can be used as a complement to our traditional ESG managers



Sources: ESG Managers Portfolios; Morningstar, Pax; www.esgmanagers.com/sustainable_investing/what_is_esg

J.P. Morgan Capabilities: Thematic Investing

- Invest according to interest in specific environmental or social themes, such as clean energy, water, education, agriculture or healthcare
- J.P Morgan works with our clients to identify unique investment opportunities

POPULATION DYNAMICS
- Urbanization
- Higher living standards
- Health & aging
- Education

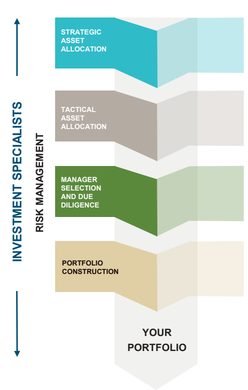
RESOURCE SCARCITY
- Energy supply
- Materials shortages
- Water stress
- Land availability

ENVIRONMENTAL CONSTRAINTS
- Local air pollution
- Water quality
- Contaminated land
- Climate change

INADEQUATE INFRASTRUCTURE
- Unavailable
- Unreliable
- Disruptive solutions

Portfolio construction is central to the creation of your core portfolio

J.P. MORGAN'S MARKET VIEW



LONG-TERM STRATEGIC ASSET ALLOCATION
- Understand your personal and financial situation and develop a long-term investment strategy tailored to your goals
- After market movements, asset allocation is the predominant determinant of long-term performance

ONGOING TACTICAL ASSET ALLOCATION
- Shorter-term adjustments to your portfolio to capture opportunities or help avoid risk, reflective of the current environment and of our investment outlook

RIGOROUS MANAGER AND FUND DUE DILIGENCE
- Prospective investment strategies are carefully selected from both J.P. Morgan Chase Bank, N.A. or any of its affiliates (together, "J.P. Morgan") and third-party asset managers across the industry and are subject to a rigorous and ongoing review process that is consistently applied by our manager research teams. Recommended strategies are then subject to investment committee review and approval

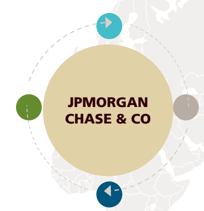
FORWARD-LOOKING AND INTEGRATED PORTFOLIO CONSTRUCTION
- From the approved pool of strategies, our portfolio construction teams select those strategies we believe best fit our asset allocation goals and forward looking views in order to meet the portfolio's investment objective. As a general matter, we prefer J.P. Morgan managed strategies unless we think third party managers offer substantially differentiated portfolio construction benefits. Consequently, we expect the proportion of J.P. Morgan managed strategies will be high (in fact, up to 100 percent) in strategies such as, for example, cash and high-quality fixed income, subject to applicable law and any account-specific considerations.
- We prefer internally managed strategies because they generally align well with our forward looking views and our familiarity with the investment processes, as well as the risk and compliance philosophy that comes from being part of the same firm. It is important to note that J.P. Morgan Chase receives more overall fees when internally managed strategies are included.

PORTFOLIOS TAILORED TO SPECIFIC CLIENT NEEDS
- Global Investment Specialists work to customize which investments are most suitable for you

J.P. Morgan Chase commitment to environmental, social and corporate governance

FACILITATE CAPITAL DEPLOYMENT
- Through the products and services of our business, we support communities by providing governments, businesses, communities and individuals the capital and credit they need in order to thrive

PROVIDE DATA AND INSIGHTS
- Through the JPMC Institute, we use our proprietary data, expertise and market insights to publish research on the inner workings of the global economy

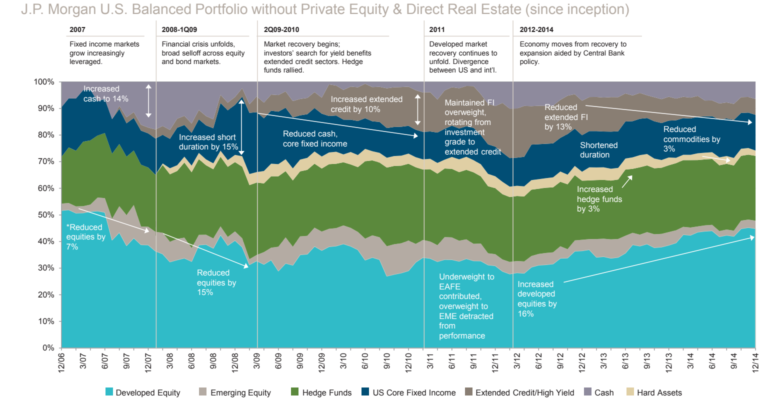


CREATE STRATEGIC PARTNERSHIPS
- Through our philanthropy, we leverage our resources and expertise to support nonprofit and community partners with the objective of expanding economic opportunity in communities around the world

OPERATE RESPONSIBLY
- Within our business, we are investing in our employees, advancing sustainability in our financing activities and operations, and supporting employees' community engagement and volunteer efforts

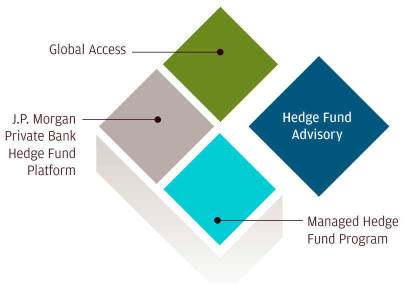
Our portfolios have been actively managed over time

J.P. Morgan U.S. Balanced Portfolio without Private Equity & Direct Real Estate (since inception)



Data as of 12/31/2014.
Inception Date—Balanced Portfolio: 02/28/2006.
The target strategic asset allocation to overall equities (developed and emerging) decreased in 2007 from 53% to 47% to fund strategic allocations to hedge funds and commodities. Since 2008, the strategic asset allocation to overall equities has been gradually reduced to its current level of 40%.
Emerging Equity allocation reflects positions in Asia ex-Japan.

Hedge Fund Advisory Overview
(U.S. Clients)



CUSTOMIZED HEDGE FUND PORTFOLIOS TAILORED TO EACH CLIENT'S UNIQUE OBJECTIVES

- Risk tolerance, concentrated/diversified, strategy specific, target range correlation/beta, niche strategy focused, liquidity

COMPREHENSIVE INVESTMENT ACCESS

- Mix of established industry veterans and niche strategies, including:
  - Litigation finance
  - Direct lending
  - Appraisal rights
  - Volatility event
  - Reinsurance
  - Government receivables

PROVIDES CLIENTS WITH INSTITUTIONAL-QUALITY HEDGE FUND SERVICES

- Leverages intellectual capital, resources and investable universes of both J.P. Morgan Alternative Asset Management (JPMAAM) and the Private Bank Alternative Investments Team

HFA HIGHLIGHTS

Robust resources

- Access to over 150 hedge funds[1]
- 65 dedicated Investment Research and Risk Analysts; low manager-to-analyst ratio[1]
- $5.5 billion in assets under supervision (AUS) and over 166 active client relationships[2]
- Global footprint with accounts serviced in New York, Geneva, London

Benefit of institutional relationships

- Negotiated capacity and fee agreements
- Customized liquidity terms
- Ability to invest in closed managers[3]
- Co-investment opportunities
- Access to new launches and seeding opportunities

Increased transparency

- Customized analytics and reporting
- Direct access to managers and research team on ad hoc basis
- Added insight through proprietary risk and portfolio management technology

TERMS AND SERVICE

Account types

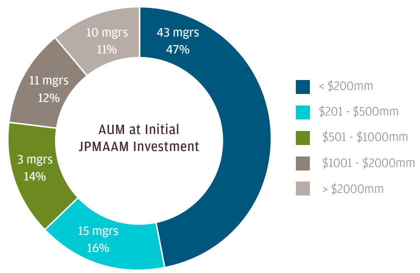
- **Discretionary**—J.P. Morgan manages the portfolio based on client's pre-agreed investment guidelines.
- **Non-discretionary**—J.P. Morgan provides advice on manager investments and portfolio construction; the client makes final decisions
- **Insurance Dedicated Fund (IDF)—Discretionary**—J.P. Morgan manages the portfolio based on investment guidelines through a bespoke, tax efficient fund structure.[4]

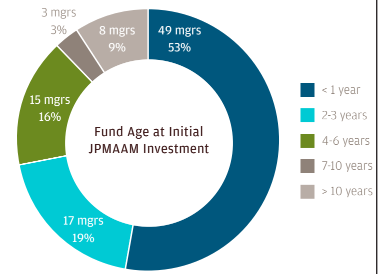
Service

- Dedicated Hedge Fund Advisor/Hedge Fund Portfolio Manager
- Ongoing dialogue concerning hedge fund industry and client's portfolio
- Detailed monthly reporting and analytics
- Ability to lend against portfolio (subject to credit approval)

INVESTING WITH EMERGING AND NICHE MANAGERS HAS BEEN A CRITICAL EDGE

At initial JPMAAM investment, 63% of approved managers[5] had $500mm or less of AUM. In contrast, 91% of industry assets are concentrated amongst the largest 18% of hedge funds (> $1bn).[6]





COMMUNICATION WITH CLIENTS

- ☐ **Ongoing dialogue with an HFA representative**
  - Recap of portfolio changes and emerging trends
  - Discuss performance drivers
  - Market updates and industry color
- ☐ **Manager letters**
- ☐ **J.P. Morgan white papers**
- ☐ **Detailed monthly reporting**
  - Performance and risk analysis
  - Look-through exposures: asset class, region, sector
  - Liquidity summary
  - Fund descriptions
  - Strategy outlook
  - Recent and pending portfolio activity

[1] Data as of June 2016. It includes the resources and capabilities of both J.P. Morgan Private bank and J.P. Morgan Alternative Asset Management as each entity will source hedge funds for its respective investment program.
[2] Data as of June 2016.
[3] Refer to Terms & Definitions at the end of this publication.
[4] Certain aspects of the HFA program described herein may not be applicable to insurance dedicated funds.
[5] Source : JPMAAM HFS.
[6] Source: HFR Global Hedge Fund Industry Report – Fourth Quarter 2015.

CASE STUDY: THE GRIFFINS

Mr. and Mrs. Griffin, both 60 years old, are recently retired, with a portfolio of $20 million. Their primary goal is to ensure they can spend $300,000 annually in retirement. They would also like to give $1 million to each of their two children and would like to support charities in their community. However, they are reluctant to make large gifts now in case they need the funds in the future. They wouldn't feel comfortable making any gift if it meant that, in 30 years, they would have less than $10 million. They have decided to wait and see how the next few years play out before doing anything.

Our analysis showed them that:

- If they keep all $20 million, there is a near certainty they could spend $300,000 annually and still have at least $10 million after 30 years.
- There is a 95% level of confidence they can achieve this core goal with a $13.4 million portfolio.
- The remaining $6.6 million surplus could then be used to give $2 million to their children, with an additional sum contributed to a donor-advised fund to support their favorite charities.

4. Identifying and Deploying Surplus Assets

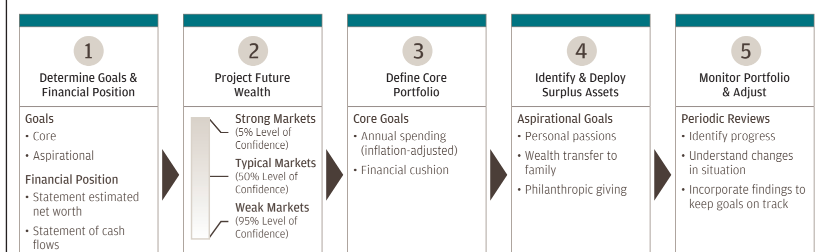
Once your core portfolio is established, we consider your aspirational goals and the best way to allocate available assets to them, incorporating your feedback along the way. By defining your core and aspirational portfolios, we put in place a wealth allocation tailored to your and your family's objectives.

5. Monitoring and Adjusting

With your goals-based plan designed and implemented, we meet with you on a regular basis to assess whether you are on track to meet your goals, and to make any adjustments as your needs evolve over time. You may buy a new home, sell a business, change marital status or grow your existing family. We will work with you to assess all meaningful life changes to keep you on track.

BENEFITS OF A GOALS-BASED APPROACH

The five-step approach helps you identify the objectives that matter most. It aligns assets with the purposes for which they are intended, and provides a realistic framework in which you can pre-experience the rewards and risks of different strategies. Understanding the potential outcomes enables you to stick with your plan even when markets are difficult. Goals-Based Wealth Management empowers you to confidently make decisions knowing you are on target to meet your most important goals.



J.P.Morgan

GOALS-BASED ADVICE

Social Security is important, even for the wealthy

JULY 2018

It's a greater benefit than many people realize

Social Security can be a significant asset for the wealthy. High earners may receive as much as $47,800 a year per person, and $95,600 for a couple.[1]

This lifetime annuity is a significant benefit, providing income that—although taxed—is guaranteed by the U.S. government, grows with inflation and is not tied to the markets.

For perspective, the maximum benefit for a couple who are both high-earners roughly equals that of a $3.2 million bond portfolio yielding 3% on a pre-tax basis.[2]

How much you receive often depends in large part on your earning history. But other factors also make a meaningful difference; among the most important are:

- When you choose to start receiving benefits
- To whom you are or have been married

Deciding when to start taking your benefit may seem simple, given one of Social Security's most straightforward realities: You are allowed to receive higher benefits later or reduced benefits earlier.

But here's a counterintuitive insight: Despite the bonus for delaying, waiting is not right for everyone. In fact, it may be wise for some to start receiving their benefits as early as age 62.

So how do you decide what's right for you?

It pays to be familiar with some rules, identify the option unique to your circumstances, and then make a decision in the context of general wealth planning.

YOUR START DATE IS CRITICAL

- **Starting early**—If you are eligible for Social Security, you are permitted to begin receiving benefits at age 62. However, your benefit will be reduced permanently (by as much as 30%) for starting before you reach what the law identifies as your "full retirement age" (FRA)

FRAs range from 66 to 67 years of age, based on when you were born. (See "Basic Facts," page 7.)

- **Starting early while working**—If you begin receiving benefits before your FRA and you are still working, you will face an additional, but nonpermanent, reduction. Your benefits will be increased when you reach your FRA to account for the fact that you received less earlier
- **Starting at your FRA**—If you begin receiving Social Security benefits at your FRA, you are entitled to your full benefit
- **Waiting beyond your FRA**—If you choose to start receiving benefits after your FRA, your full benefit will increase by 8% a year until you reach 70 years old

For Informational/Educational Purposes Only: JPMorgan Chase & Co., its affiliates, and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transaction. The information presented is not intended to be making value judgments on the preferred outcome of any government decision.

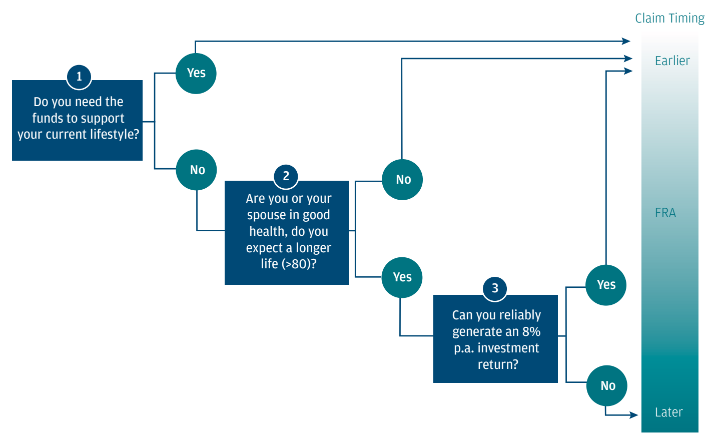
[1] Assumes the individual began receiving benefits at his/her full retirement age (FRA); waiting until age 70 could mean higher totals.
[2] Calculation is based on the 30-year Treasury bond yielding 3.13% as of April 27, 2018.

SO WHEN SHOULD YOU BEGIN?

Because everyone's circumstances are different, your decision depends on your finances, your plans for retirement, your health and other personal preferences. Here, we provide a simple decision tree to help you determine what's right for you. It's also important to decide as part of a thorough understanding of your financial situation and goals.

GET ON THE RIGHT PATH

This simple decision tree provides general guidance. Your circumstances may warrant more detailed discussions



Source: J.P. Morgan.

Beyond the decision tree, be sure to speak with your advisors if:

- You are married, and there is a significant age discrepancy between you and your spouse (8+ years)
- You were born before January 2, 1954, and in addition to your own benefit, you qualify for a spousal benefit
- You are entitled to survivor benefits from a deceased (ex-)spouse

To evaluate what may be best for you and your family, your J.P. Morgan representative can help you and your other professional advisors think through your Social Security decision as part of a broader retirement strategy and goals-based analysis. This may include using sophisticated simulation models to:

- Project your spending needs
- Analyze potential asset growth
- Examine Social Security benefit options

Widow(er)s can receive survivor benefits

If you're a surviving spouse, you can collect survivor benefits based on your spouse's work history and start date.

You can start collecting a reduced amount as early as age 60. This reduction is permanent. You can collect the maximum survivor benefit at your FRA. Survivor benefits do not earn delayed retirement credits, and thus there is no incentive to delay receiving survivor benefits beyond FRA.

WHEN STARTING EARLY MAY BE A GOOD IDEA

There are good reasons to start taking Social Security sooner rather than later. Two are obvious:

01 You need the funds for your lifestyle

02 Your life expectancy, or your spouse's, is shorter than average

Two other possible reasons are less apparent:

03 You want to avoid liquidating other assets

04 You want to invest in a portfolio that yields positive returns that would yield more than the amount your Social Security benefit would grow by delaying

EVERYONE IS DIFFERENT

All these considerations underscore the most basic fact about Social Security: The timing of when it is right for you to start taking your benefits is highly individualistic. It should include considerations of health, retirement income from other sources, asset allocation, investment return expectations, spending needs, aspirations, tax environment and your unique tolerance for risk.

You have to decide how important it is for you to have the extra insurance that is created by waiting, as well as how any benefits fit into your overall retirement plans.

Conversations regarding Social Security should be part of a holistic discussion about your goals in general and retirement in particular. Your J.P. Morgan representative is available to assist you and your advisors with this important aspect of your future.

TAKE TAXES INTO ACCOUNT

To see how your Social Security benefits might fit into your overall wealth picture, it is important to assess the impact of taxes (which is too often neglected in benefit planning).

Social Security benefits receive preferential tax treatment. The taxable portion of a benefit ranges from zero for low-income retirees to a maximum of 85%.

The portion of the benefit that is subject to tax will be taxed at ordinary income rates. The effective tax rate on benefits paid to retirees who are in the highest tax brackets is therefore higher than the preferential rate for such investment income as long-term capital gains or qualified dividends.

In particular, they may want to use their assets in retirement accounts such as 401(k)s or IRAs so that they can reduce those assets before drawing their Social Security benefits. **There also may be opportunities to proactively realize income during years of deferral (e.g., Roth conversions) before drawing Social Security benefits and potentially moving to a higher tax bracket.**

State taxes further complicate this picture, as different states have different rules about taxing Social Security benefits. Some do not impose any state tax on these federal benefits.

Your decision about when to start taking Social Security may also be impacted by where you will be living when you receive the payments.

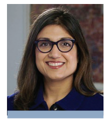
ENDOWMENTS & FOUNDATIONS

Your mission. Our insights.

Making a difference

J.P.Morgan

FIVE ESSENTIAL QUESTIONS



Monica Issar
Global Head of Multi-Asset & Portfolio Solutions, Endowments & Foundations
J.P. Morgan

You are committed to ensuring your organization has the resources needed to accomplish its mission, and we understand how challenging this responsibility can be.

The Endowments & Foundations Group at J.P. Morgan is dedicated to working with not-for-profit organizations across the globe to help with their complex investment and financial management needs.

In our experience, an organization's long-term success is greatly enhanced when the not-for-profit's leaders have specialists to help them think through their answers to five essential questions:

We would welcome the opportunity to get to know your organization better and to discuss our insights with you.

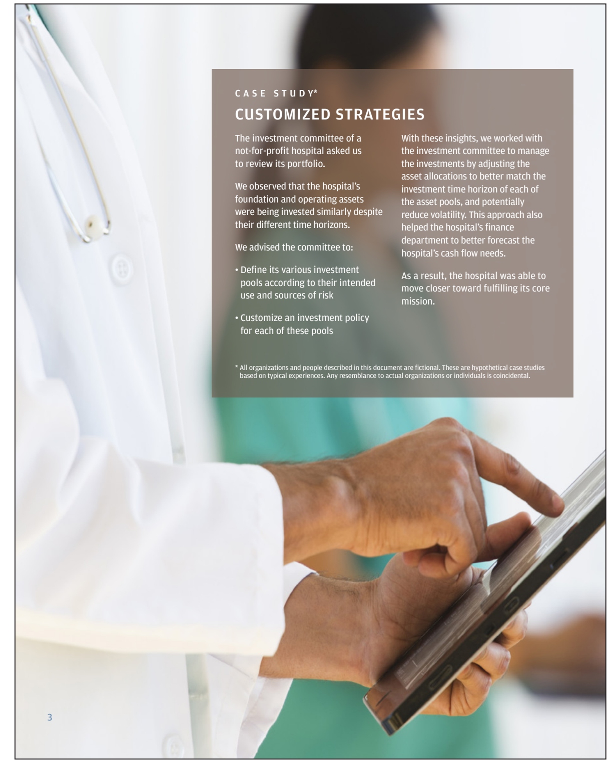
Monica

Is your Investment Policy Statement helping you achieve your goals?

Before discussing asset allocation and investment decisions, we believe it is useful to make sure that your investment strategy is truly aligned with your operating budget.

This alignment, we believe, is possible only if your organization has a sound Investment Policy Statement.

Because an Investment Policy Statement is the blueprint created by the board of directors to guide investments, it is critical that this statement allows you to balance risk with opportunity to grow so that you can meet your organization's needs and goals.



CASE STUDY*

CUSTOMIZED STRATEGIES

The investment committee of a not-for-profit hospital asked us to review its portfolio.

We observed that the hospital's foundation and operating assets were being invested similarly despite their different time horizons.

We advised the committee to:

- Define its various investment pools according to their intended use and sources of risk
- Customize an investment policy for each of these pools

With these insights, we worked with the investment committee to manage the investments by adjusting the asset allocations to better match the investment time horizon of each of the asset pools, and potentially reduce volatility. This approach also helped the hospital's finance department to better forecast the hospital's cash flow needs.

As a result, the hospital was able to move closer toward fulfilling its core mission.

* All organizations and people described in this document are fictional. These are hypothetical case studies based on typical experiences. Any resemblance to actual organizations or individuals is coincidental.

CREATE A THOUGHTFUL STRATEGY

WORKING WITH ENDOWMENTS AND FOUNDATIONS, WE HAVE SEEN THAT THE MOST EFFECTIVE INVESTMENT STRATEGIES TAKE INTO ACCOUNT:

GROWTH AND INCOME OBJECTIVES FOR THE NEAR AND LONG TERM
How dependent are your operations on the returns generated by your invested assets?

RISK TOLERANCE
How much volatility can your portfolio tolerate to achieve its investment goals?

GOVERNANCE
Are board members and trustees aware of all the rules regarding conflicts of interest and self-dealing?

INVESTMENTS
What mix of asset classes is suitable for your organization?

ANALYTICS
Do you have tools necessary to measure your portfolio's performance and the risk you are taking?

SOCIAL AWARENESS
Does your organization want to invest for social impact?

CASE STUDY*

THE WORLD AT THEIR DOORSTEP

We helped the investment committee for a conservation organization in Latin America see that one of its key choices—to invest solely in its home country—was creating two challenges:

- **Missed opportunities**—Profitable investments were to be had in other markets
- **Hidden concentration risk**—Although the committee had been careful to invest across multiple asset classes, it did invest a majority of funds in home country markets. This approach left the organization subject to one country's economic cycle, currency fluctuations and geopolitical risk

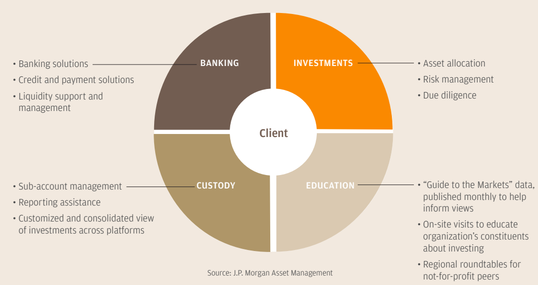
We helped the organization tap into timely investments in other regions, from which it has profited.

We also helped reduce risk by building a truly diversified portfolio: The organization now has an appropriate mix of global investments, while still maintaining about 25% of its investments in the home country.

* All organizations and people described in this document are fictional. These are hypothetical case studies based on typical experiences. Any resemblance to actual organizations or individuals is coincidental.

HELPING YOU ON MANY FRONTS

A dedicated Endowments & Foundations Group specialist helps each client thoughtfully select from the broad range of J.P. Morgan resources, then orchestrates a seamless delivery of those services.



Source: J.P. Morgan Asset Management

START WITH A SOUND INVESTMENT POLICY STATEMENT

One of an investment committee's most important tasks is to create, update and revise the organization's Investment Policy Statement. As advisors to many not-for-profit organizations, we are able to share best practices with you.

AN INVESTMENT POLICY STATEMENT SHOULD:
• Empower managers, advisors and board members to make decisions
• Be specific about return/risk objectives
• Address the potential for disconnect between long-term expectations and interim results
• Match time horizons to investment cycles, rather than the number of years the organization is expected to be in existence
• Create flexibility so that the distribution policy, asset allocation and other portfolio variables can be adjusted as conditions change

J.P. Morgan Private Bank invites you to

Name of event
Not more than two lines

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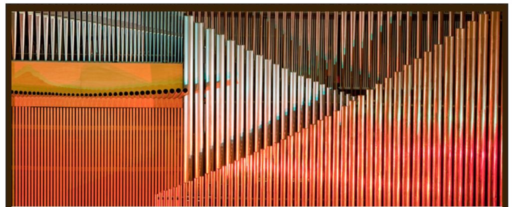
Day, Month 00, 2018
0:00 p.m. Welcome
0:00 p.m. Reception

Place of event
Event address
Event address
City of Event

Please confirm your attendance with Event Contact at 123.456.7890 or email.address@jpmorgan.com.

J.P.Morgan



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J.P.Morgan PRIVATE BANK

Bedrooms by Van Gogh

Vincent van Gogh, Dutch, 1853-1890. The Bedroom, 1889. Helen Birch Bartlett Memorial Collection.

DAY, MONTH 00, 2018
6:30 p.m. - 8:30 p.m.
Cocktail Reception and Private Viewing

Place of event
Event address
City of Event

To confirm your attendance, please contact Event Contact at 123.456.7890 or email.address@jpmorgan.com.

J.P. Morgan Private Bank invites you to

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J.P.Morgan PRIVATE BANK

Name of event
Not more than two lines

Please join J.P. Morgan Private Bank in exploring the elite university admissions process. Topics will include high school selection, standardized tests, athletic recruiting, donation expectations, alumni networks and legacy issues. Attendance is limited to parents and grandparents of future enrollees.

FEATURING

First Name Last Name
Title
Company

First Name Last Name
Title
Company

Hosted and moderated by

First Name Last Name
Title
Company

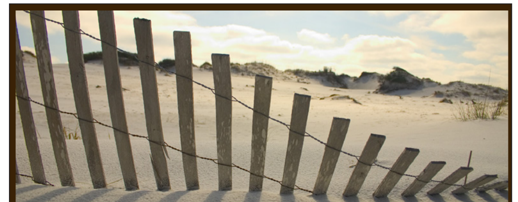
DAY, MONTH 00, 2018
Place of event
Event address
City of Event

5:30 pm Registration and cocktails
6:00 pm Program

Complimentary valet parking

Kindly note that Congressional requests jackets for gentlemen, and no denim

Please confirm your attendance with Event Contact 123.456.7890 or email.address@jpmorgan.com by Friday, February 19, 2017



J.P. Morgan Private Bank invites you to

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Place of event
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City of Event

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Washington Watch SPOTLIGHT

FROM THE Advice Lab

MARCH 8, 2018

Is it time for your Roth conversion?

By Daniel Hauschild, Wealth Strategist, J.P. Morgan Private Bank

The new tax law's reduced top personal income rates may make it even more attractive for some high-income earners to convert traditional IRAs into Roth IRAs.

It is always worth considering converting to a Roth. They offer a tremendous economic advantage, freeing the earnings you make in them from all future income taxes.

But before you act, make sure the move is right for you:

- The new tax law made Roth conversions permanent; once your IRA is a Roth, you will not be able to turn it back into a traditional IRA
- Even if you feel ready to make this commitment, beware the "IRA Aggregation Rule," which may expand your tax liability significantly
- Ensure a decision to convert to a Roth fits within the context of your unique situation and overarching wealth plan (See "Planning considerations," page 3)

As with any transaction that involves tax consequences, be sure to consult your accountant or tax advisor. Your J.P. Morgan team is available to help you make sure your potential Roth conversions work with the rest of your wealth planning. Also, be sure to ask about other *Washington Watch Spotlights*—analyses that help you respond to the latest U.S. laws and regulations.

THE BEAUTY OF ROTHS AND CONVERSIONS

TRADITIONAL VS. ROTH IRAS

Both types of IRAs allow assets to grow free of taxes for as long as the assets remain in these accounts.

- Traditional IRAs—Contributions to these accounts are generally free of both state and U.S. income taxes. However, when distributions are made, they are taxed, and you'll pay taxes on both the original contribution (if you haven't already) and any growth. Moreover, distributions are mandatory starting at age 70½. But you are ahead if your income tax rate when distributions are taken is lower than it was when you made the contributions
  - Why make non-deductible contributions to traditional IRAs? Many people are not allowed to make deductible contributions to their traditional IRAs or the total amount they can contribute is limited (due to restrictions related to age, employer plans and income levels). Still, it can be advantageous for them to save for retirement by making non-deductible contributions to a traditional IRA. Although you may have to use after-tax dollars for your contributions, earnings on these assets are tax-deferred. And, once again, your income tax rate may be lower when mandatory distributions begin
- Roth IRAs—You can only contribute after-tax dollars to a Roth. However, you will not have to pay income taxes on any distributions—so no taxes will be paid on asset growth. Moreover, you will never be required to take distributions from your Roth. You can leave it to heirs, who may or may not be required to take distributions

- **Seventeen states (and the District of Columbia) impose death taxes that are independent of the U.S. estate tax exclusion.** They include Illinois and New York. For the full list, see "Death taxes across America" on page 3. Note: Unlike the federal exclusion, most state exclusion amounts are not "portable"—i.e., one spouse cannot use a deceased spouse's unused estate tax exclusion amount.
- **Trusts should be rechecked for tax efficiency in light of the new law.** The new $10,000 cap on deductions for state and local taxes (SALT) applies to trusts as well as individuals. Which states' income taxes apply to a trust is based on a number of factors, including where the trustees, grantor and beneficiaries live, as well as from what jurisdiction the trust's income is sourced. Differences in state income tax liability can be dramatic. For one example, see "Where do your trustees live?" below. To determine your trust's state tax liabilities and your options, please consult your J.P. Morgan team and estate planning lawyers

NEXT STEPS

You now have an opportunity to gift more free of transfer taxes, during your lifetime or upon your death. You and your spouse can each give up to $11.18 million. If you have sufficient resources to give during your lifetime, consider doing so.

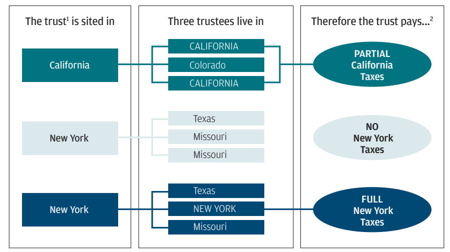
- **If you are unsure how much you might comfortably gift during your life and still meet your personal financial goals,** your J.P. Morgan team can examine your cash flow and model your assets' potential growth to help inform your decision on how much wealth you may be able to transfer tax-efficiently to family members
- **If you decide you want to make gifts free of gift taxes into existing trusts,** you will want to make sure that those trusts are still as tax efficient as when they were created
- **Have your advisors make sure that your assets are owned in a way that will allow tax-efficient transfers.** No matter how well your documents may be drafted, the way you hold your assets (individually, jointly with rights of survivorship, etc.) can have a significant impact on the way you can use your tax exemptions. So even as you make sure your documents carry out your wishes, also make sure your asset titling is conducive to these plans

STAY UP TO DATE

While we know a great deal about the new tax law and its effects on individuals, much still needs to be clarified by the U.S. Department of Treasury. Please be sure to ask your J.P. Morgan team about other *Washington Watch Spotlights:* analyses that help you respond to the latest U.S. tax law and regulations.

Where do your trustees live?

Your answer to this question can determine how much the trust may pay in state income taxes

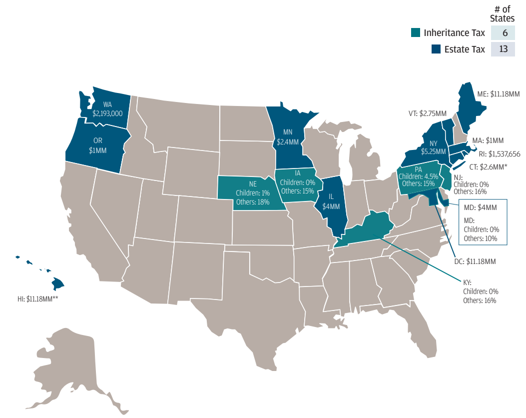


[1] Trust is a "non-grantor" trust.

[2] Assumes trust owns no property in the state in which it is resident and earns no income sourced to that state.

Death taxes across America

Seventeen states (and the District of Columbia) have an estate or inheritance tax independent of the U.S. estate tax, and one of these states, Maryland, has both. The amounts these states allow to pass to heirs free of transfer taxes vary greatly.



The inheritance tax rate shown for beneficiaries other than children is the maximum rate for the state.

The 13-state count for estate taxes includes the District of Columbia.

Source: J.P. Morgan Private Bank, March 16, 2018.

* Connecticut has a unified transfer tax on both lifetime and testamentary transfers.

** Hawaii's estate tax exemption amount is portable between spouses.

CONVERSIONS

High-income earners generally are ineligible to contribute to Roth IRAs. In 2018, the cutoff for those who are permitted to contribute to Roths are: earned income greater than $135K for a single filer or head of household; and greater than $199K for those who are married and filing jointly.

Yet high-income earners still can have Roths:

- **Lump-sum conversions**—Everyone is permitted to transform existing traditional IRAs into Roths. However, you will pay U.S. and state income taxes, at your current rates, on any previously untaxed assets
- **Annual conversions**—High-income earners can make non-deductible contributions to traditional IRAs and convert those almost immediately into Roths. Some people do so annually
  - What's the IRS reaction? So far, the government isn't objecting to annual conversions. In 2015, IRS spokesperson Dean Patterson said that "there's no caveat about waiting" to do a conversion, and that Roth IRA conversions, even those done annually, were not an issue for them. But some tax experts have expressed concerns that the IRS stance could change. So it is a good idea to consult your tax advisors

INCOME TAXES

YOUR TAX RATE MAY BE LOWER NOW...

Many higher-income earners will find themselves with a lower tax rate in 2018. That is because the new tax law not only slightly reduced the top U.S. income tax rate, but it also increased the income needed to qualify for that rate.

...BUT BEWARE "BRACKET CREEP"

If you have a lower rate, it may be a good idea to take advantage of your bracket and convert your traditional IRAs into Roths sooner rather than later. Many higher-income earners may find themselves moving relatively quickly into higher brackets in the coming years. That's because the new law changed the method by which the government will calculate inflation, which is used to make adjustments to the income levels for the brackets.[1]

DO NOT FORGET TO CONSIDER STATE TAXES

You still have to pay state taxes on conversions, and that may be a slightly heavier burden now for individuals in high-tax states, as the new U.S. tax law capped deductions for state and local taxes.

However, even if your effective state tax rate is higher, a Roth may be a good long-term strategy for you.

SINGLE FILERS		MARRIED, FILING JOINTLY		RATE	
2017	2018	2017	2018	2017	2018
Up to $9,325	Up to $9,525	Up to $18,650	Up to $19,050	10%	10%
$9,325-37,950	$9,525-$38,700	$18,650-$75,900	$19,500-$77,400	15%	12%
$37,950-$91,900	$38,700-$82,500	$75,900-$153,100	$77,400-$165,000	25%	22%
$91,900-$191,650	$82,500-$157,500	$153,100-$233,350	$165,000-$315,000	28%	24%
$191,650-$416,700	$157,500-$200,000	$233,350-$416,700	$315,000-$400,000	33%	32%
$416,700-$418,400	$200,000-$500,000	$416,700-$470,700	$400,000-$600,000	35%	35%
Over $418,400	Over $500,000	Over $470,700	Over $600,000	39.6%	37%

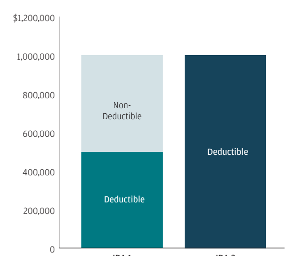
[1] Inflation adjustments used to be pegged to the Consumer Price Index for All Urban Consumers (CPI-U). The new tax law made it so that inflation adjustments will now be made according to the chained CPI-U, which results in lower estimates of inflation (as it adjusts for small-sample bias and takes into account consumers' substitutions as prices change).

THE AGGREGATION RULE

If you convert one traditional IRA, the IRS will be looking at all your traditional IRAs as though they are one total IRA to determine how much of the conversion is taxable. So if you have deductible and non-deductible money in an IRA, and deductible money in another IRA, conversions must be pro rata across both IRAs, making the conversion a taxable event for more than you may expect if you are converting the IRA with both deductible and non-deductible money.

This means that if you have significant pre-tax dollars in an IRA, an annual conversion is going to incur taxes. For a lump-sum conversion, the tax is usually expected, and you should understand the tax consequences beforehand.

How the rule works



	Non-Deductible	Deductible	
IRA 1	$500K	$500K	$1MM
IRA 2		$1MM	$1MM
	$500K	$1.5MM	$2MM
% of total	0.25%	0.75%	

A $500K conversion from IRA 1 will have a tax bill that is 3/4 taxable because of the pro rata value of deductible money across both IRAs.

If IRA 2 did not exist, only 50% of the $500K conversion would be taxable.

PLANNING CONSIDERATIONS

Sometimes it makes sense to convert. Sometimes it does not. Your decision to convert should include a look at a variety of factors, including:

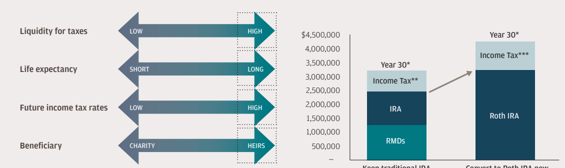
- Whether you will have liquidity to pay the taxes due on the conversion
- Your life expectancy
- Your future income tax rates, both U.S. and state
- Your intended beneficiary of the IRA—i.e., if the intended beneficiary of your traditional IRA is a tax-exempt charitable organization that would not owe income taxes on distributions, you may not want to convert and incur income taxes yourself

CASE STUDIES: TO CONVERT OR NOT TO CONVERT?

Amy's answer should probably be "Yes"

That's because:

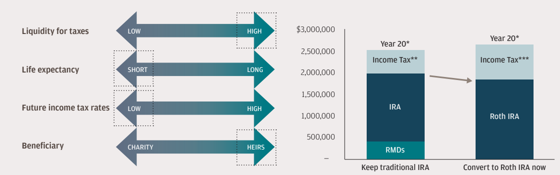
- Her traditional IRA has $1MM
- She is 55
- She expects to live 30 more years
- She lives, and plans to stay, in Florida
- Her current top marginal income tax rate is 37% and is anticipated to be 39.6%



But John's answer should probably be "No"

That's because:

- His traditional IRA has $1MM
- He is 55
- He expects to live 20 years
- He also lives, and plans to remain, in Florida
- His current top marginal income tax rate is 37% and is anticipated to be 25%

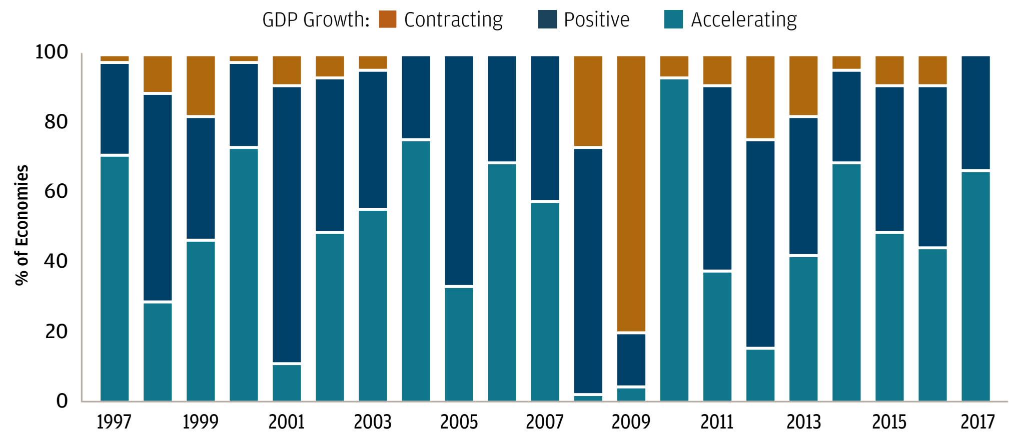


* Portfolio projections are based on a balanced portfolio.

** Income tax is the tax paid on the remaining IRA balance at the end of life expectancy.

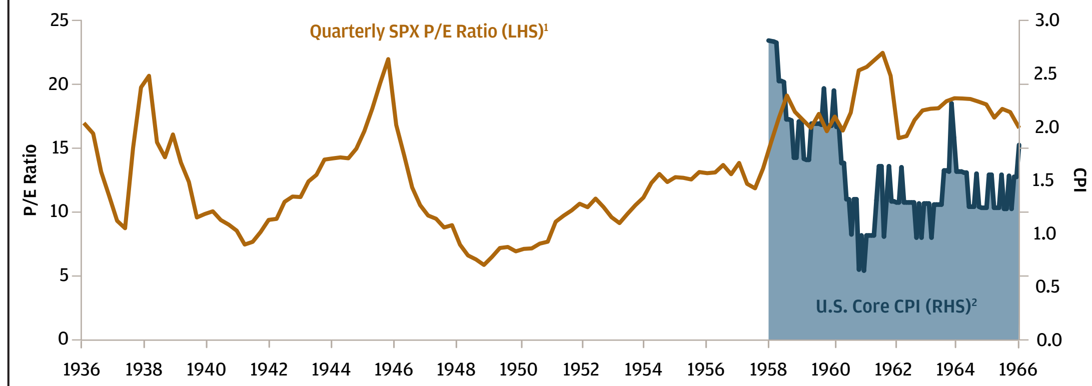
*** Income tax is the tax paid on the conversion of the traditional IRA to Roth IRA.

Most synchronized global growth in at least a decade



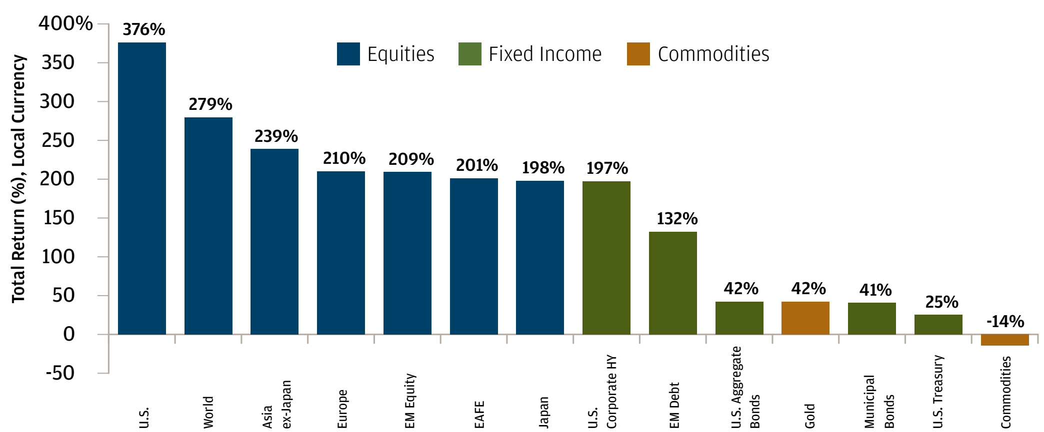
Source: Organisation for Economic Co-operation and Development, J.P. Morgan Private Bank Economics. Data as of September 30, 2017. Includes 45 countries tracked by the OECD.

Valuations are high, but subdued inflation helps cap downside risk



Source: Haver; IBES.
[1]Data as of March 31, 1966. [2]Data as of April 30, 1966.

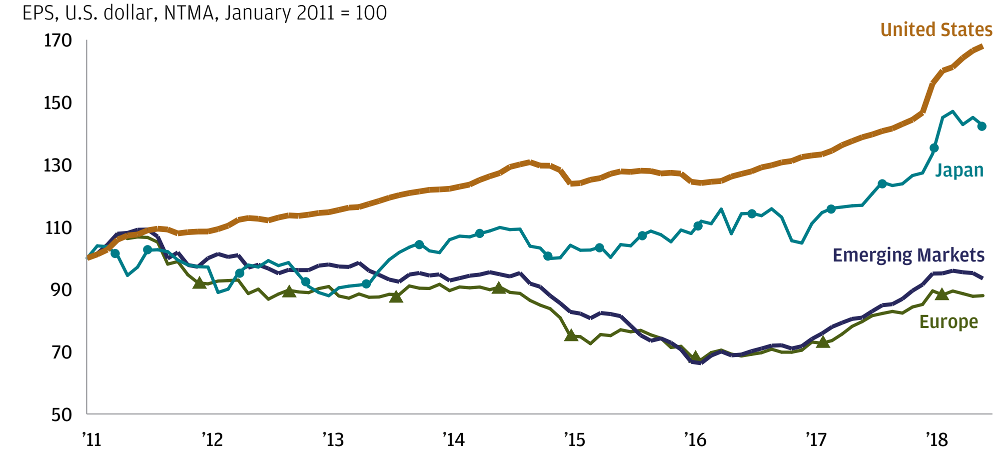
Performance of global assets since 2009 low* (local currency)



Source: FactSet. Sectors shown above are represented by: EM Equity: MSCI EM; Europe: MSCI Europe; Asia ex-Japan: MSCI Asia ex-Japan; EAFE: MSCI EAFE; World: MSCI World; Gold: GLD ($/ozt); U.S.: S&P 500; Japan: MSCI Japan; U.S. Corporate High Yield: Barclays U.S. High Yield; U.S. Aggregate Bonds: Barclays Aggregate; Municipal Bonds: Barclays Municipal Bonds 1-17 years; EM Debt: Barclays EM Aggregate USD; U.S. Treasury: Barclays Global U.S. Treasury; and Commodities: Bloomberg Commodity Index. Data as of December 31, 2017.
*2009 low refers to 3/1/2009. **Past performance is not a reliable indicator of future results.**

Earnings are picking up globally

EPS, U.S. dollar, NTMA, January 2011 = 100



Sources: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management–*Guide to the Markets*. Data is as of June 30, 2018.