ALGER

Inspired by Change, Driven by Growth.

Summer 2021

Capital Markets: Observations and Insights

RIP 60/40 Asset Allocation?

Alger is committed to sustainability and is a signatory to the PRI.

RIP 60/40

Fixed income investors worldwide…face a bleak future.

– Warren Buffett
2020 Berkshire Hathaway Annual Letter

While we understand the diversification properties of bonds, and why something akin to the 60% stock / 40% bond portfolio mix has historically made sense for many investors, we have always been enamored by stocks and been biased to a higher equity weighting. It is not just that we prefer a lumpy high-single digit annual return to a consistent low-single digit return, but it's our view that over the long-term equities produce compelling risk-adjusted returns. Afterall, stocks "yield" significantly more than bonds and that earnings stream to equity holders has reliably increased. In fact, in every 10-year period over the past half century it has grown, while bond coupons of course do not.

Fiscal and monetary forces have recently worked together to create unprecedented stimulus just as the Fed has adopted higher or more flexible inflation goals than before. This dismal macroeconomic environment for bonds, combined with historically low yields and the declining diversification benefits of fixed income, make us wonder whether traditional asset allocation rules of thumb are becoming obsolete.

As stock pickers, we focus our effort on bottom-up, research intensive security selection using our time-tested philosophy of Positive Dynamic Change. It is the change that we see in the economy that makes the equity opportunity set so exciting. However, this dynamically growing economy combined with a bond market priced for stagnation cautions us against fixed income.

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Chief Investment Officer

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Key Observations and Themes

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We believe the end of the bond bull market and waning diversification benefits diminishes the value-add of fixed income to portfolios.

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With large stimulus and economic reopening, many areas of economic activity are significantly above their pre-pandemic levels while others still have further to go.

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With the non-U.S. valuation discount historically large, investors may be able to find the growth they crave at the values they want outside of the U.S.

IV

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Secular investment trends may transcend economic volatility, politics and central bank actions, producing compelling investment opportunities over the long term.

V

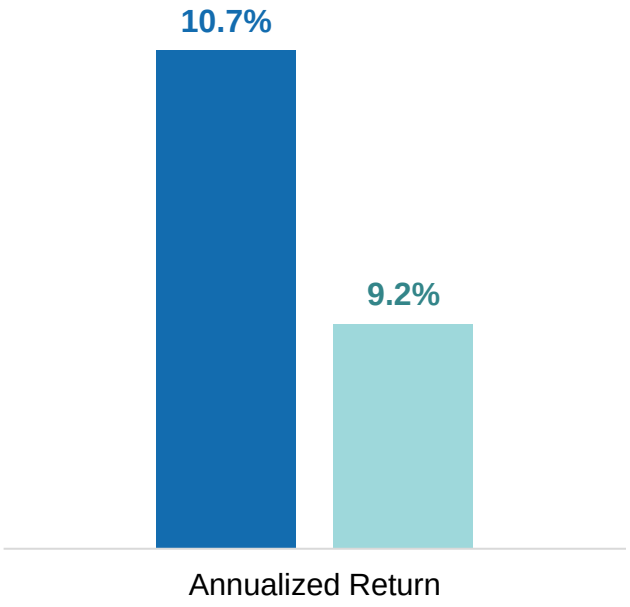
Style Wars 27

Value stocks have regained some lost ground, but powerful structural forces may keep the long-term trend of Growth outperformance intact, in our view.

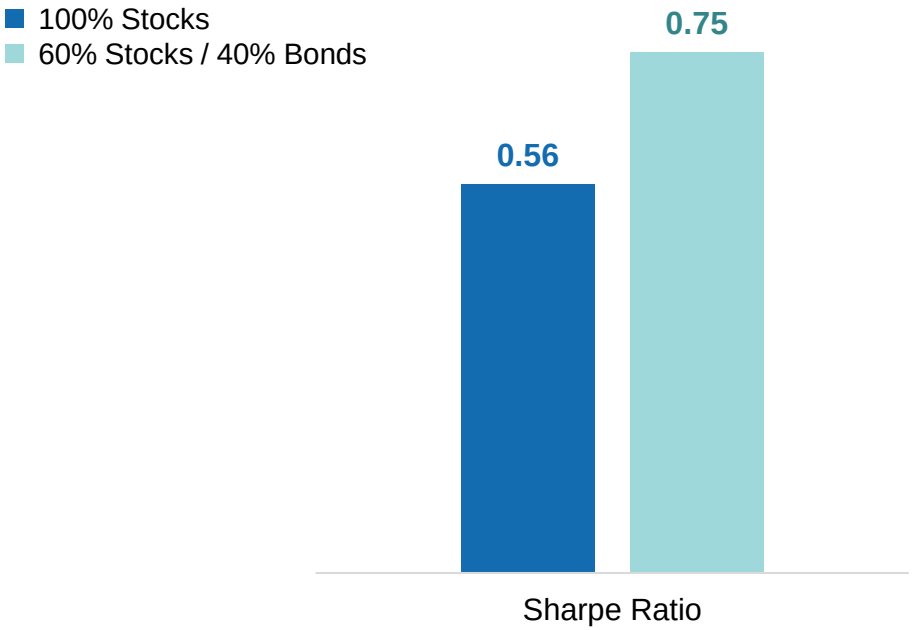
RIP 60/40
A Good Run

- While a balanced portfolio clearly gives up absolute return, its risk adjusted return has been strong over the past 30 years

Annualized Return 1990-2020



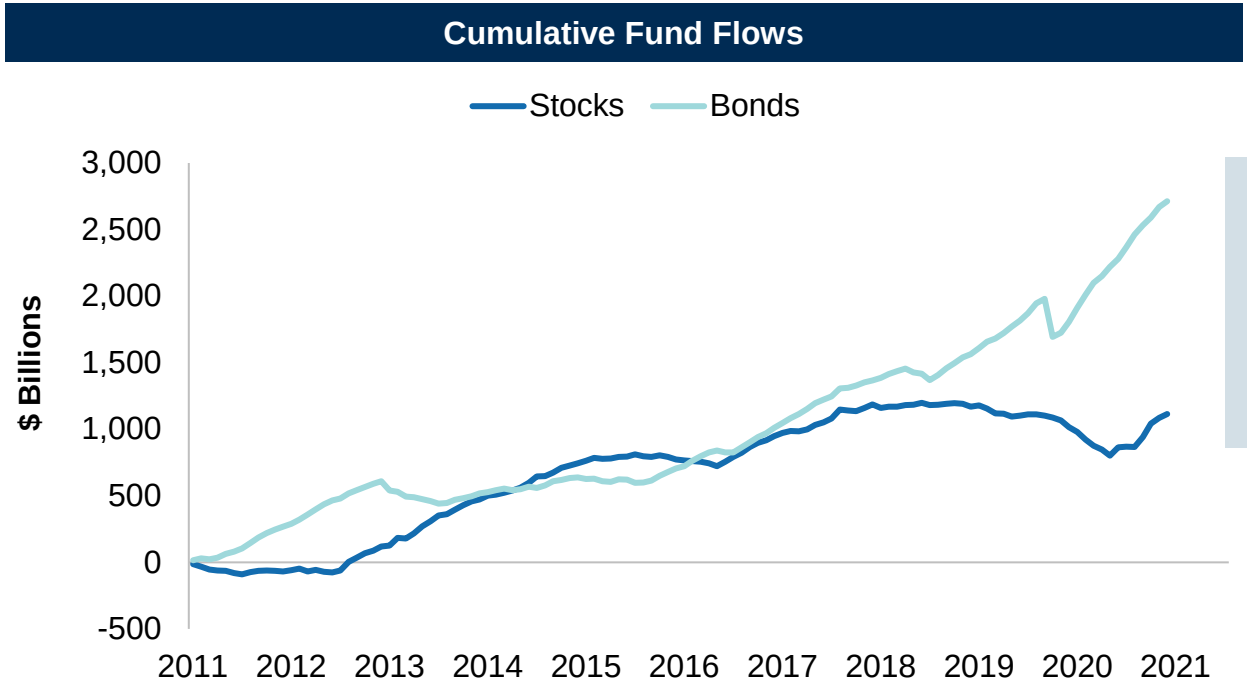
Sharpe Ratio 1990-2020



Source: FactSet and Alger. Stocks represented by S&P 500 and bonds by Bloomberg Barclays U.S. Aggregate Bond Index. **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

RIP 60/40
Continued Allocation to Bonds

- Investors have plowed more than twice the amount of capital into fixed income funds and ETFs as they have put into equities over the past decade

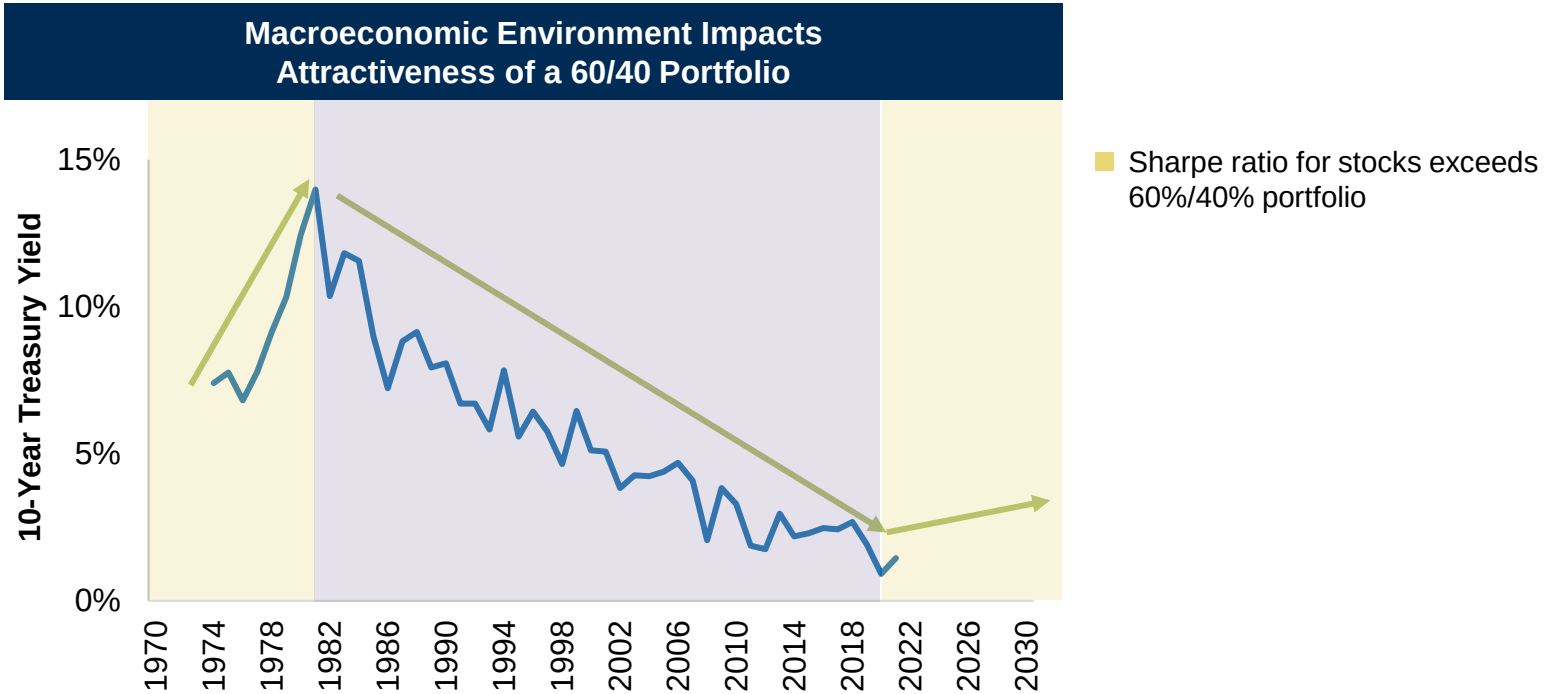


Bonds have received $1.5 trillion more net inflows as compared to equities over the past decade

Source: Morningstar. Cumulative fund flows for decade ending May 2021 for active and passive open-end funds and ETFs. Equities include U.S. equities, international equities and sector specific. Bonds include taxable and municipal.

RIP 60/40
A More Difficult Environment?

- What worked in a declining interest rate environment may not work going forward
- The next decade is unlikely to be as friendly to a balanced portfolio given very low bond yields and the lack of further downside to interest rates, in our view

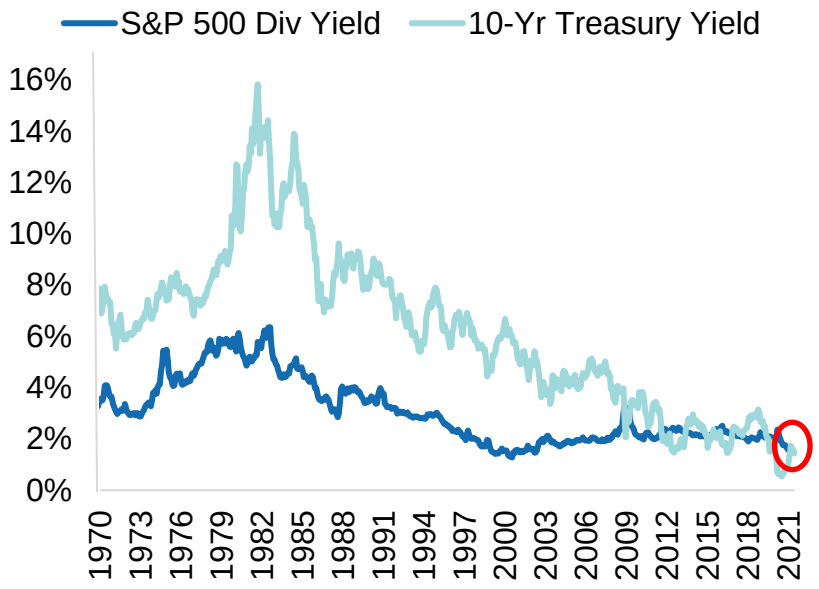


Source: FactSet and Alger. Stocks represented by S&P 500 and bonds by Bloomberg Barclays U.S. Aggregate Bond Index. Last datapoint is 6/30/21. The Sharpe ratio is a measure of risk-adjusted return and is calculated as the difference of the return of a portfolio and the risk-free rate divided by the standard deviation of those excess returns.

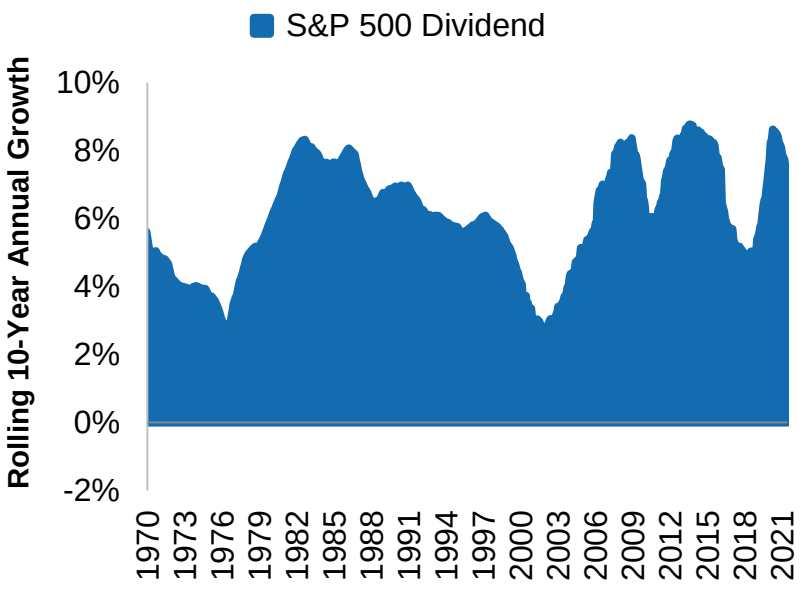
RIP 60/40
Bonds for Income?

- Investing in bonds over stocks for current income is challenged by equity dividend yields being similar to 10-year Treasury yields, while stocks are likely to distribute much more cash to investors over time
  - Over 10-year periods in the past half century, the S&P 500 dividend has not declined and has grown an average of 6% annually, while a Treasury bond coupon does not grow

Similar Yields…



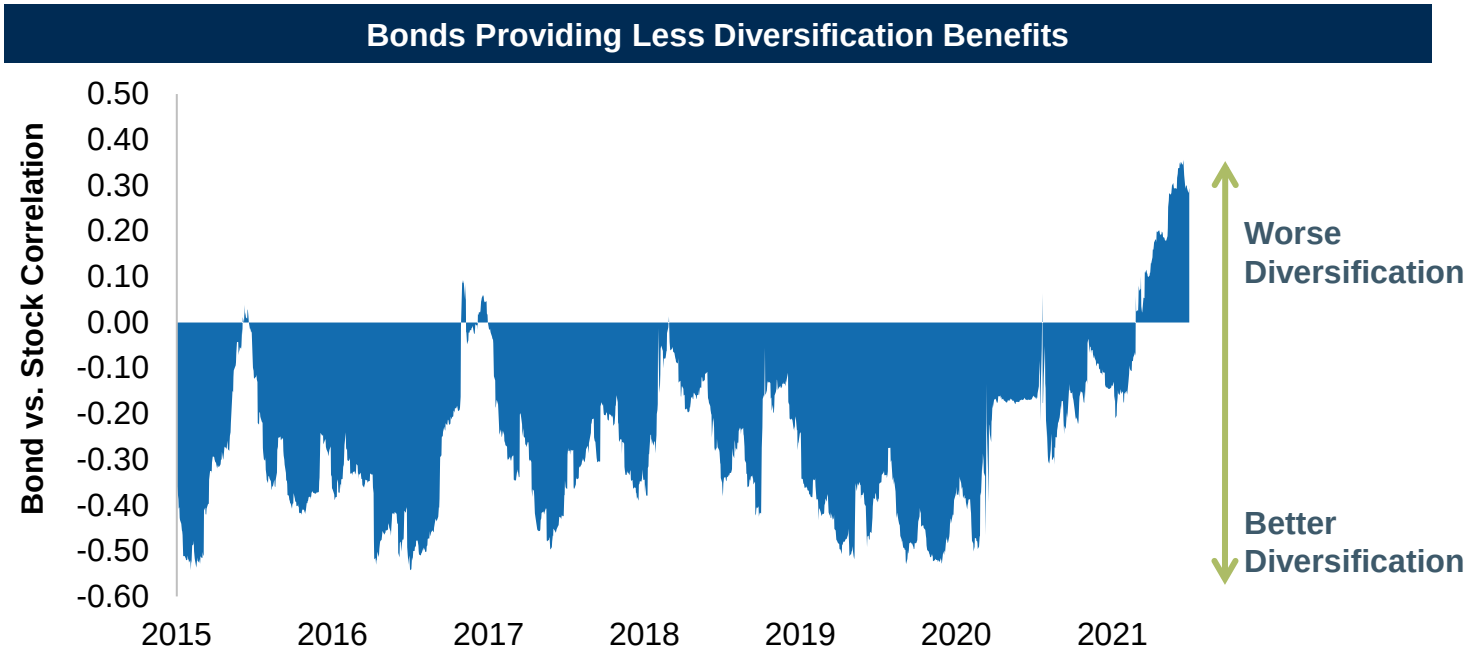
…But Stock Dividends Can Grow!



Source: FactSet, Robert Shiller, Alger.

RIP 60/40
Bonds for Ballast?

- Many investors assume that bonds will provide diversification benefits
- But bond correlations to equities have risen, diminishing their ability to stabilize a portfolio

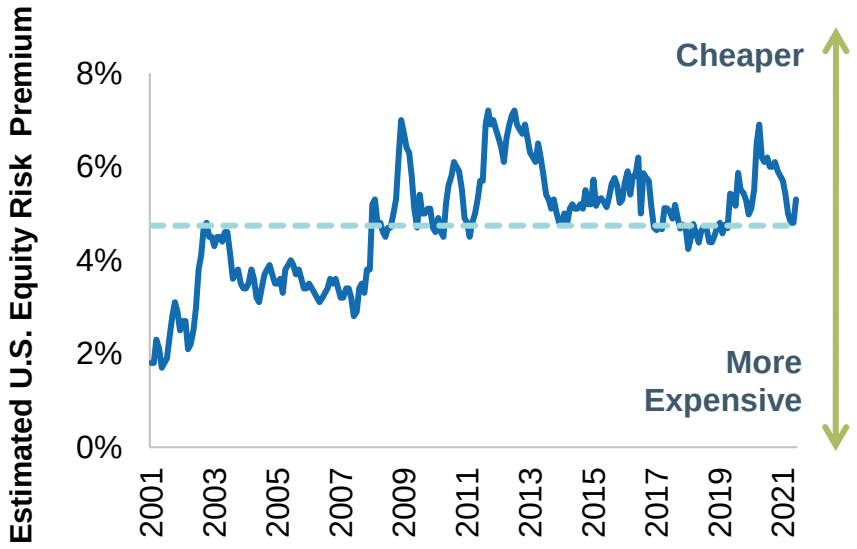


Source: FactSet. Correlation of S&P 500 vs. Bloomberg Barclays U.S. Aggregate Bond Index over rolling 90-day basis. Diversification does not assure a profit or protect against loss.

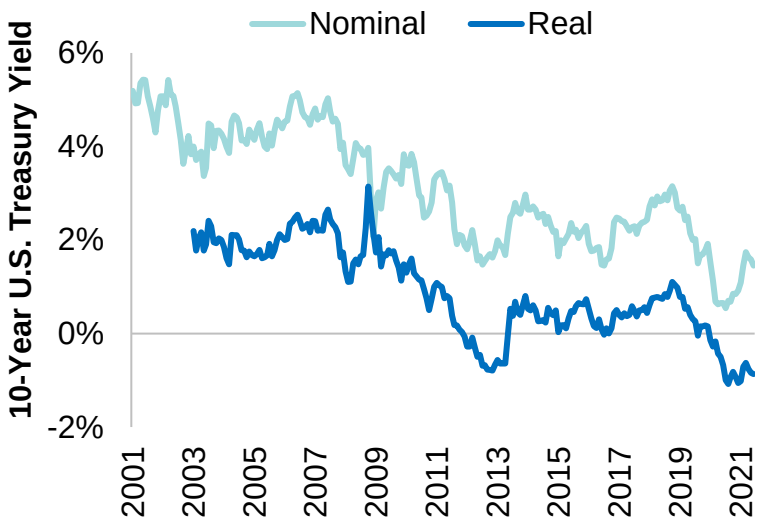
RIP 60/40
A Question of Value

- The Equity Risk Premium shows stocks are reasonably valued relative to their historical average when incorporating interest rates
- Bonds are unattractive in our view, given the historically low levels of both nominal and real yields

Investors Can Harvest Ample Equity Risk Premium



Government Bonds Offer Investors Low Nominal and No Real Return

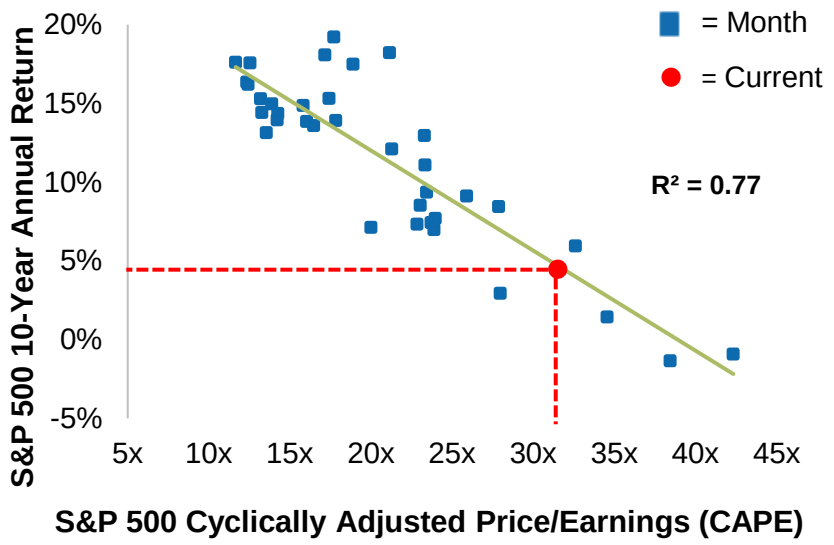


Source: Goldman Sachs and FactSet. Note: The market implied equity risk premium (ERP) is the rate that at each point in time makes the theoretical value from GS Dividend Discount Model equal to the observed market price. U.S. equities are represented by the S&P 500 and the real 10-year U.S. Treasury yield is represented by the Treasury Inflation Protected Security (TIPS).

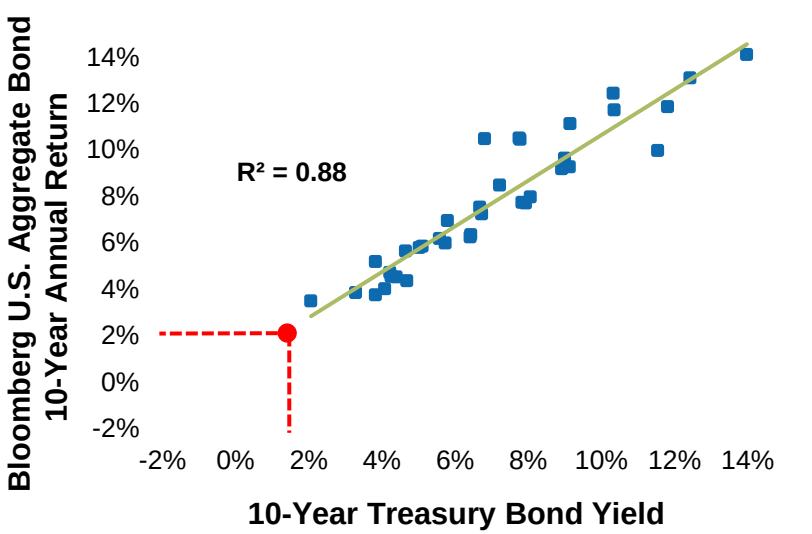
60/40 RIP
Searching for Returns

- There is a strong relationship between starting valuation and ensuing 10-year returns for both stocks and bonds
- Current valuations suggest equities should outperform bonds over the coming decade

Equity CAPE vs. 10-Year Returns
Since 1975



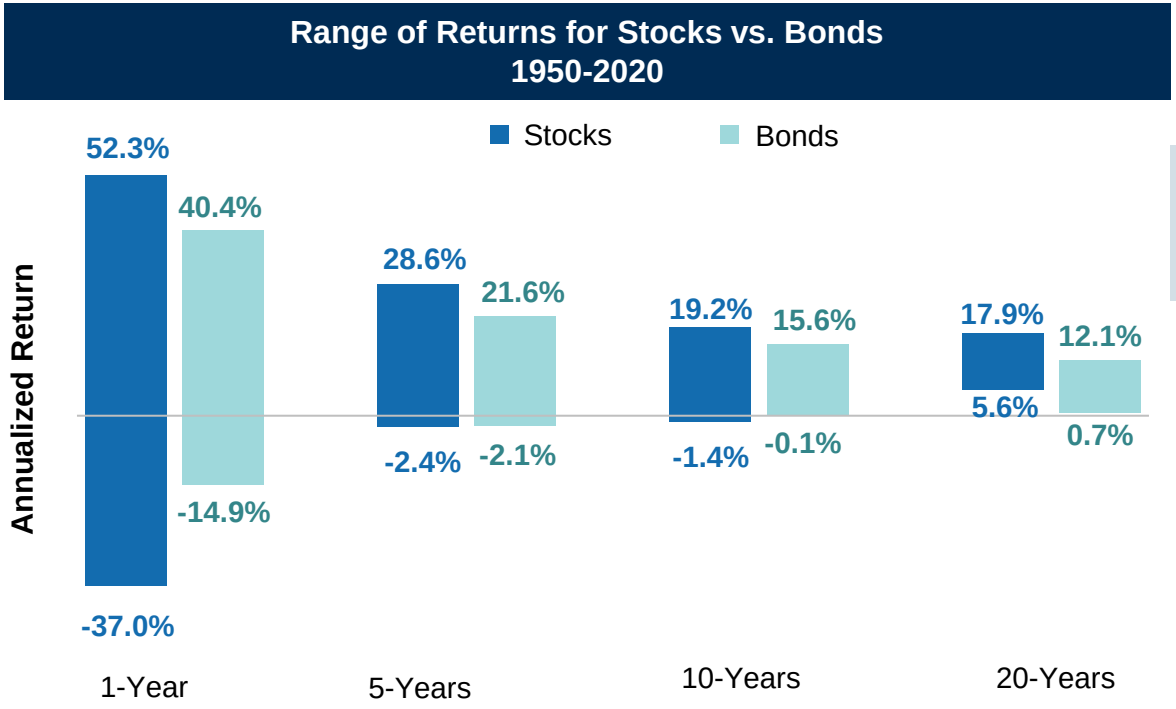
Bond Yield vs. 10-Year Returns
Since 1975



Source: FactSet. Each dot represents the P/E or yield during that month and the annual return generated over the subsequent 10 years. The starting P/E ratio is the price divided by the next 12-month earnings per share estimate at the start of each 10-year period measured. Yearly data through 2020. R-squared is a statistical measure used to analyze how differences in one variable can be explained by the difference in a second variable. **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

RIP 60/40
The Long View

- Adding bonds to a portfolio has historically reduced volatility in the short term, but over longer durations, equity risk compares more favorably to bonds
  - Over 20-year periods, stocks have significantly outperformed bonds on average while having a lower standard deviation and a much higher minimum return

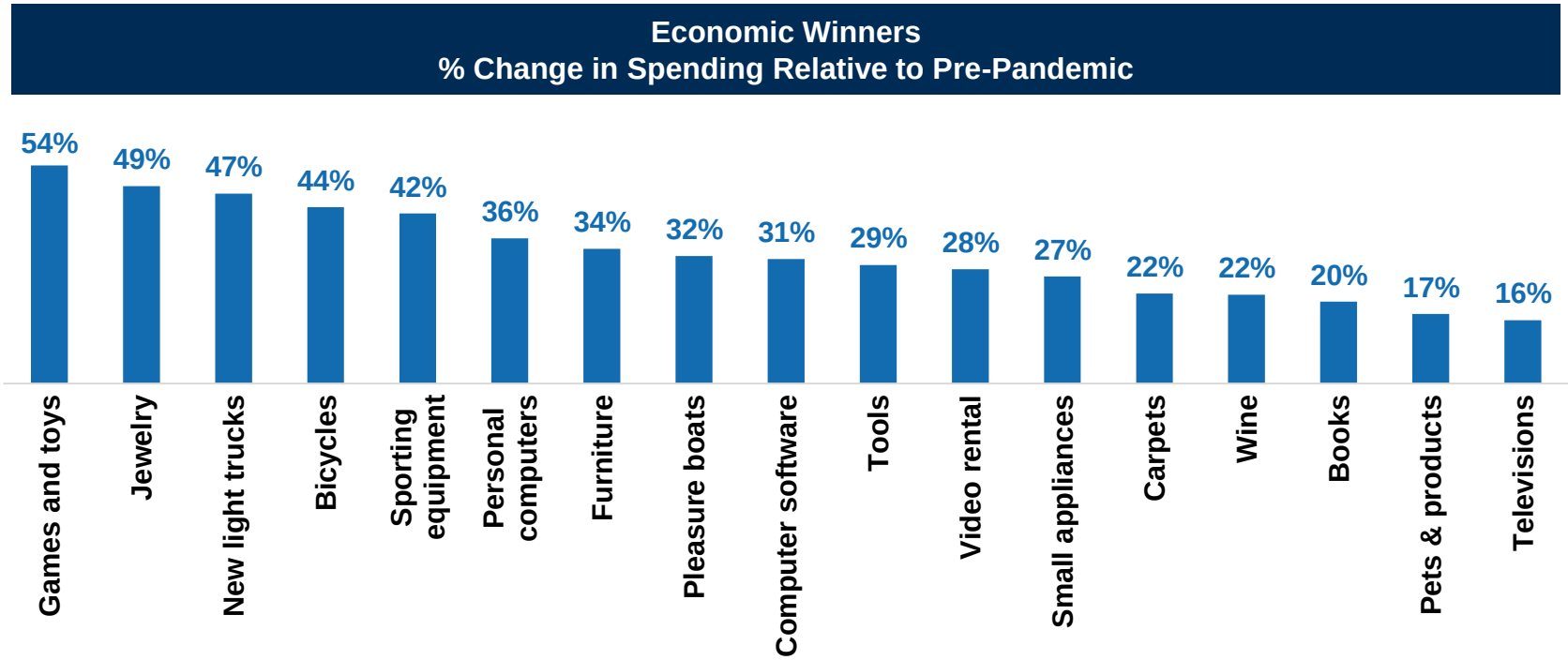


Stocks may be less risky over the long-term than many investors believe

Source: Morningstar and Alger. Data is for 1950-2020 based on annual rolling periods. Stocks are S&P 500 and bonds are Ibbotson U.S. Long-Term Government Bond Index. Standard Deviation measures how much the portfolio's return has deviated from its average historical return. **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

Grand Reopening
New Peaks

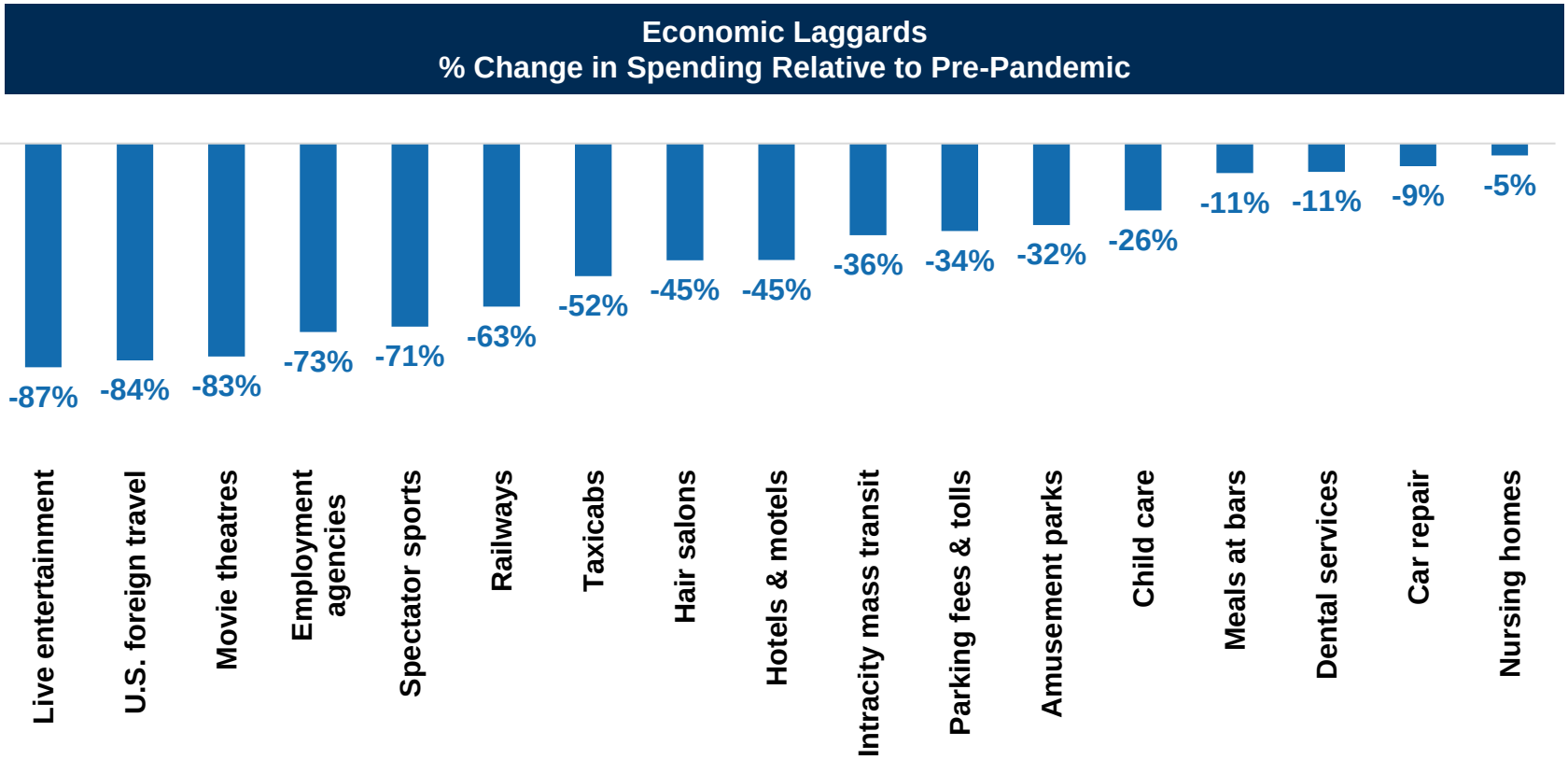
- Many areas of the U.S. economy have fully recovered and are hitting new peaks such as GDP, retail sales, corporate earnings, business spending, and the housing market
  - Below are some of the best spending categories compared to pre-Covid



Source: U.S. Bureau of Economic Analysis and Alger. Data through May 2021 and is compared to December 2019.

Grand Reopening
Not There Yet

- Other areas of the U.S. economy have not recovered including employment, capacity utilization, and various spending categories shown below such as travel and live entertainment

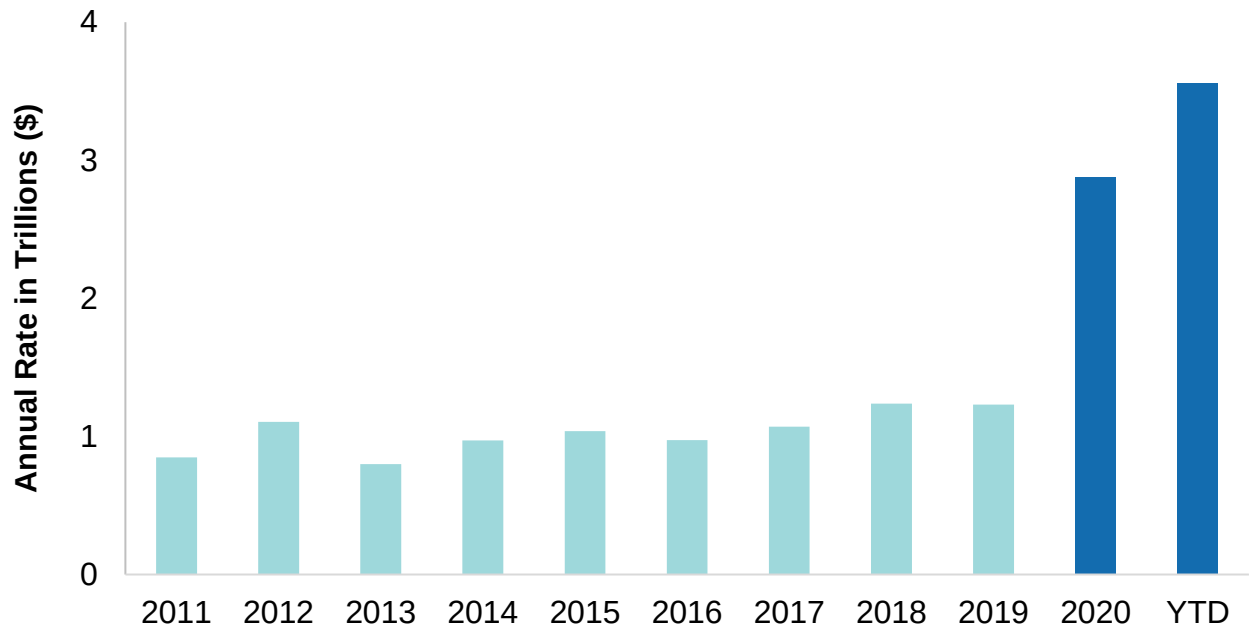


Source: U.S. Bureau of Economic Analysis and Alger. Data through May 2021 and is compared to December 2019.

Grand Reopening
Surging Savings

- Stimulus has driven very high savings levels, a portion of which will ultimately be spent and may drive very strong consumer spending, in our view

U.S. Personal Savings Explodes Higher

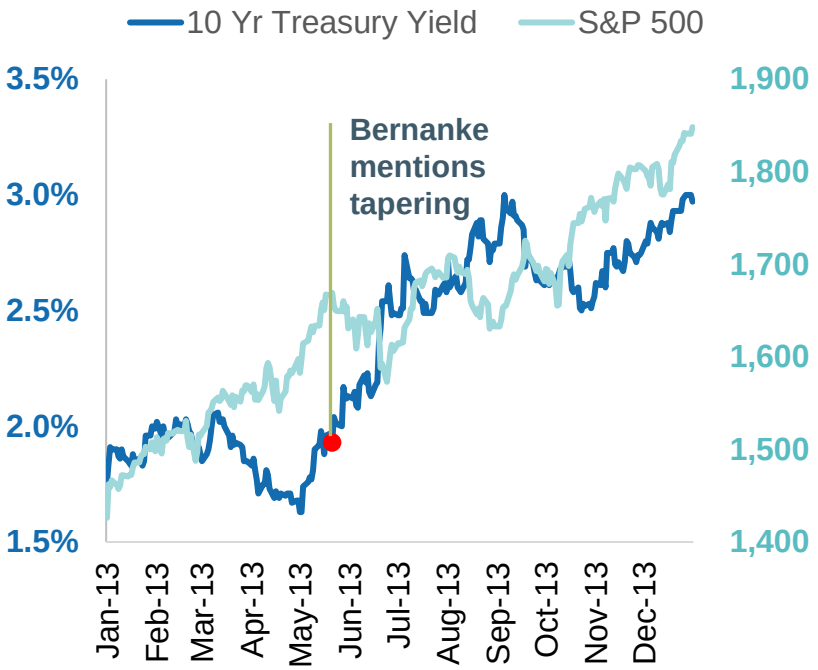


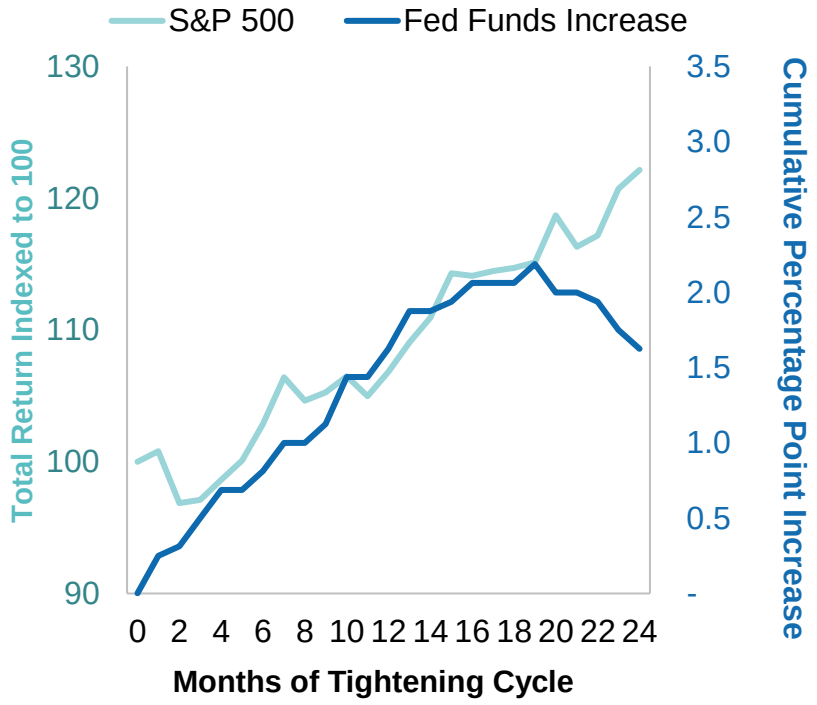
Trillions of dollars of recent *incremental* savings could come back to the economy

Source: U.S. Bureau of Economic Analysis. Data through May 2021 which was reported in late June 2021.

Grand Reopening
Fed to End the Party?

- The last taper tantrum didn't end in tears as interest rates and stocks rose together
- Equities have historically rallied through the Fed tightening cycle



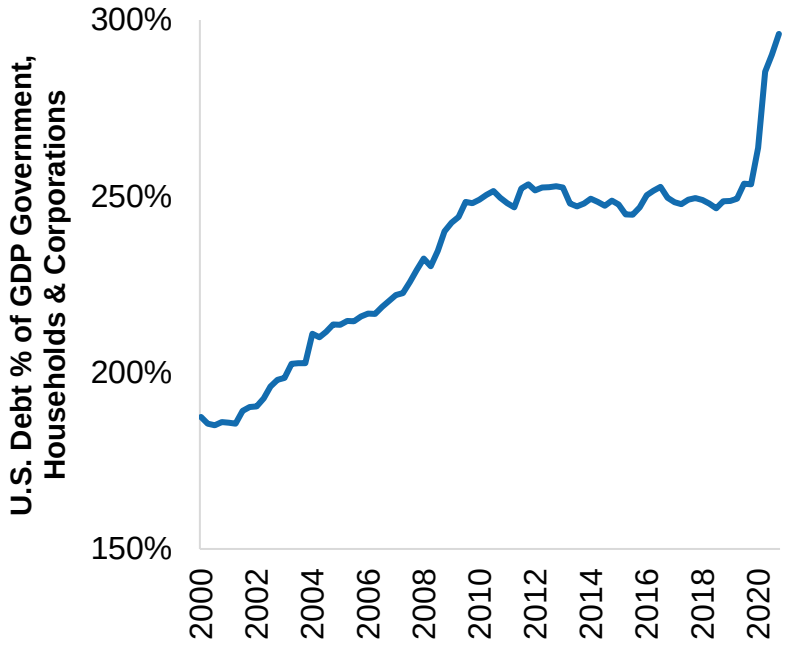


Source: FactSet, Alger. Average of the four most recent two-year tightening cycles beginning in February 1994, June 1999, June 2004, and December 2015. **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

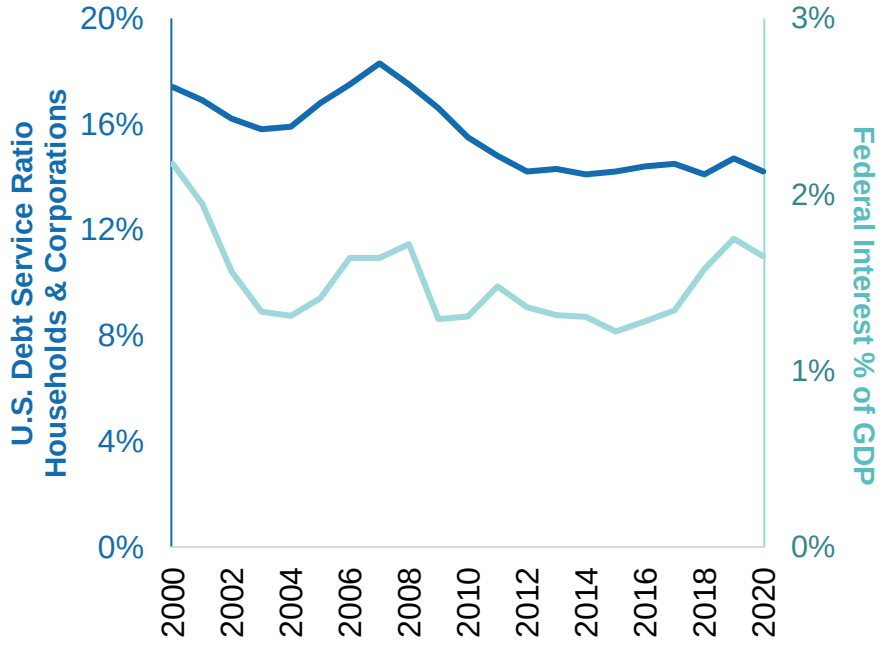
II Grand Reopening
No Debt Hangover Yet?

- Huge fiscal stimulus and easy financial conditions have caused a surge in U.S. debt
- However, the cost to service the private and federal debt is not high relative to history

U.S. Debt Levels Are Very High…



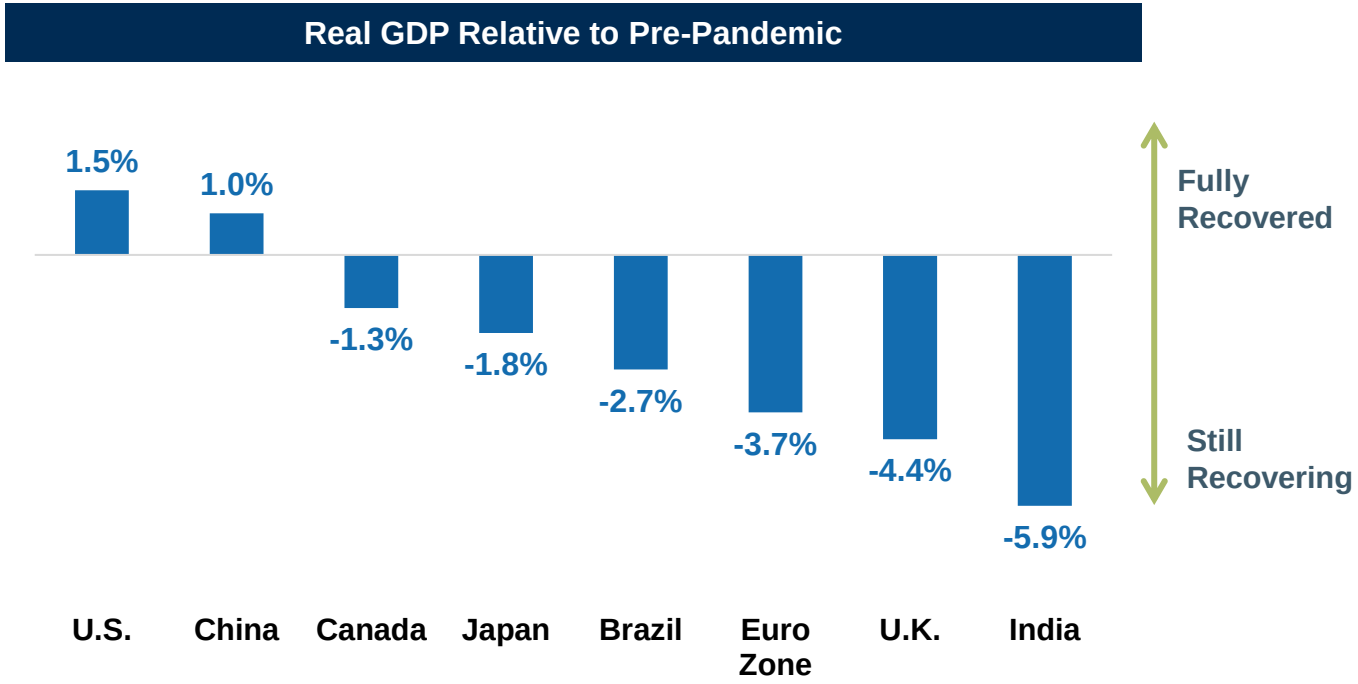
…But The U.S. Debt Service Burden Is Not



Source: Bank for International Settlements, June 2021 and Federal Reserve Bank of St. Louis. Debt Service Ratio is the share of income used for interest payments and amortizations in the non-financial private sector.

Looking Abroad
Playing Catch-up

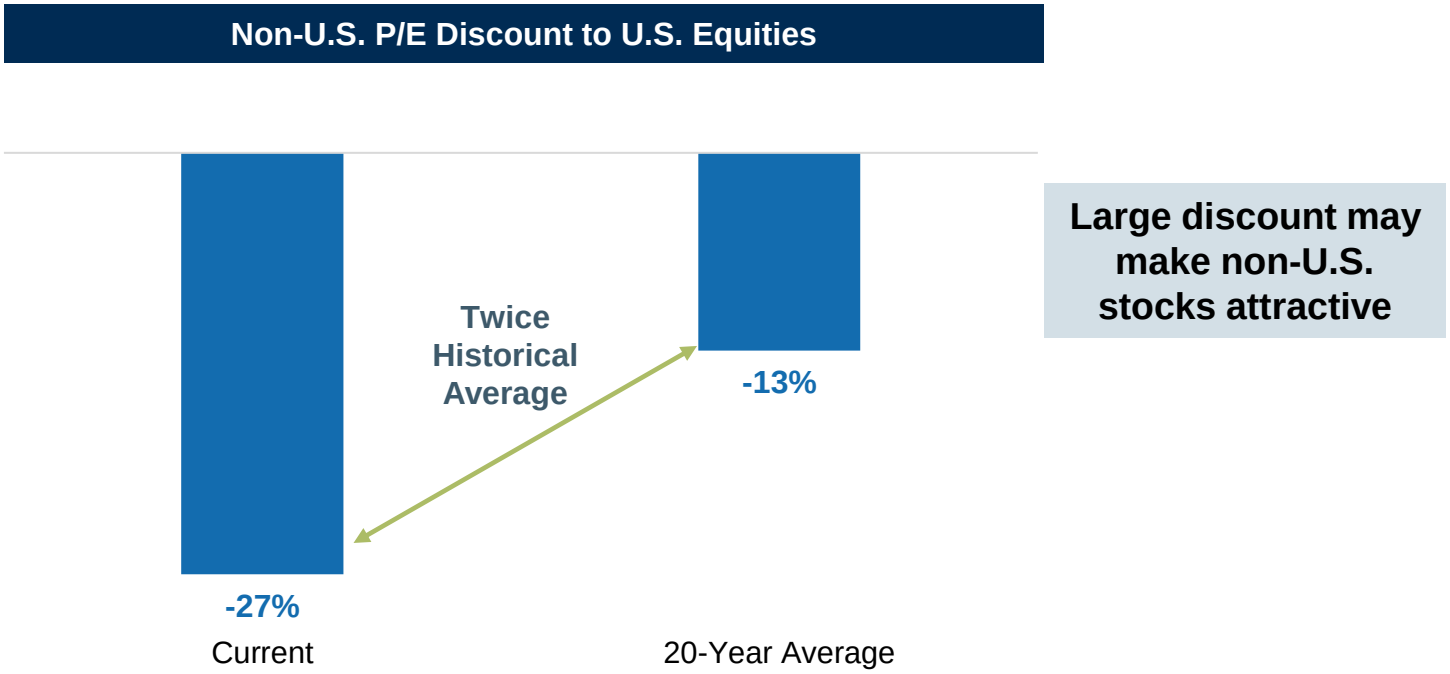
- Many countries are behind the U.S. in battling the pandemic
- International and emerging markets may be attractive as they catch-up economically



Source: FactSet. Each country's pre-pandemic baseline is its end of 2019 real GDP. Data is through 2Q21 using estimates as of 6/30/21.

Looking Abroad
On Sale

- Non-U.S. stocks typically trade at a discount to U.S. equities, but that discount is more than twice as large as it has been historically

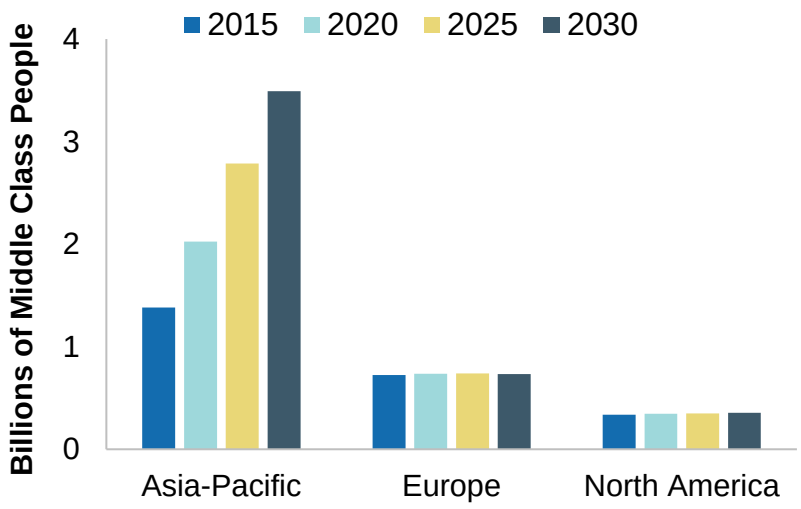


Source: FactSet and Alger as of 6/30/21. Non-U.S. stocks represented by MSCI AC World ex-U.S. index. U.S. stocks represented by S&P 500.

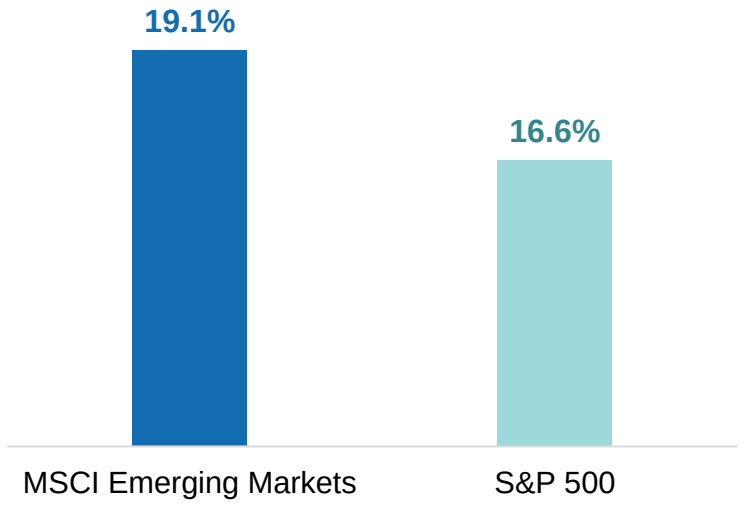
Looking Abroad
Emerging Market Growth

- The demographics in emerging markets is a significant growth factor
- Drives materially stronger long-term earnings growth within emerging markets

The Asian Middle Class Is Expected to Grow



Long-Term EPS Growth Greatest in EM



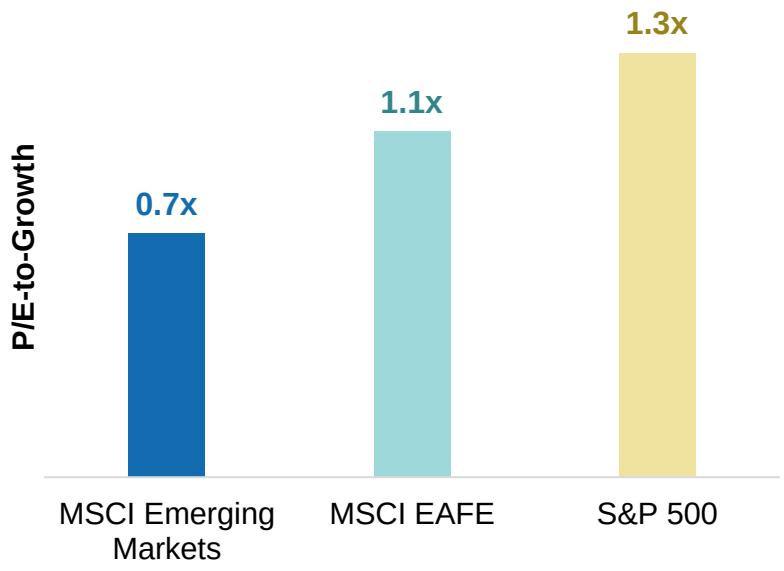
Source: Middle class estimates from Brookings Institution. A middle-class family has an approximate income of $16,000 to $160,000 in purchasing power parity terms. EPS growth estimates from FactSet as of 6/30/21.

Looking Abroad
Cheaper Growth

- Investors may be able to find the growth they crave at the values they want in non-U.S. stocks

- Equities in key innovation categories often trade for much cheaper valuations in foreign markets as compared to those within the U.S.

Growth is Cheaper Outside of the U.S.



Innovative Themes Available For Less in Non-U.S.

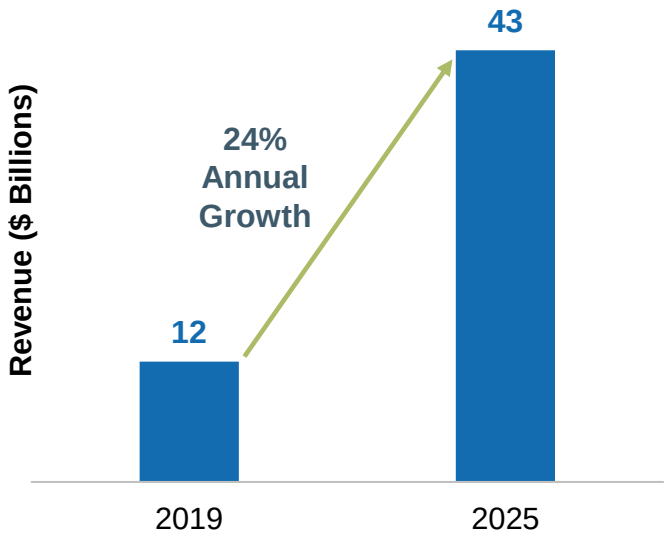
Industry	Large Non-U.S Discount?
Communication Platform as a Service	✓
Business Process Automation	✓
Renewables	✓
Electrification	✓
E-Commerce	✓

Source: FactSet and Alger as of 6/30/21. For more information on non-U.S. discount in innovative themes see Brad Neuman, "Where to Find Growth For Less," Alger, 2021.

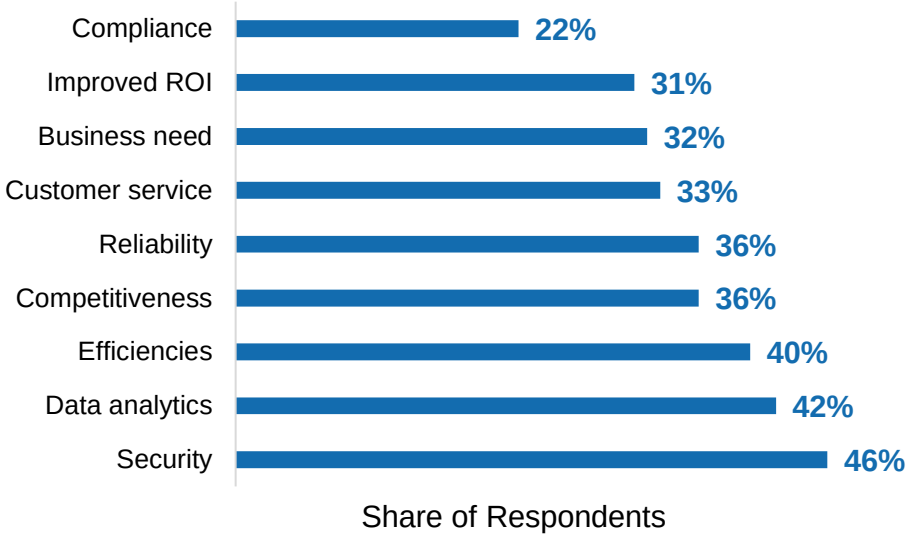
Enduring Themes
Internet of Things

- The explosion in connected devices is creating the “Internet of Things” or IoT, transmitting valuable and actionable information
  - Applications include industrial monitoring and automation, health care, security, agriculture, inventory management, smart cities, utility metering and connected cars

IoT Sensor Market Worldwide



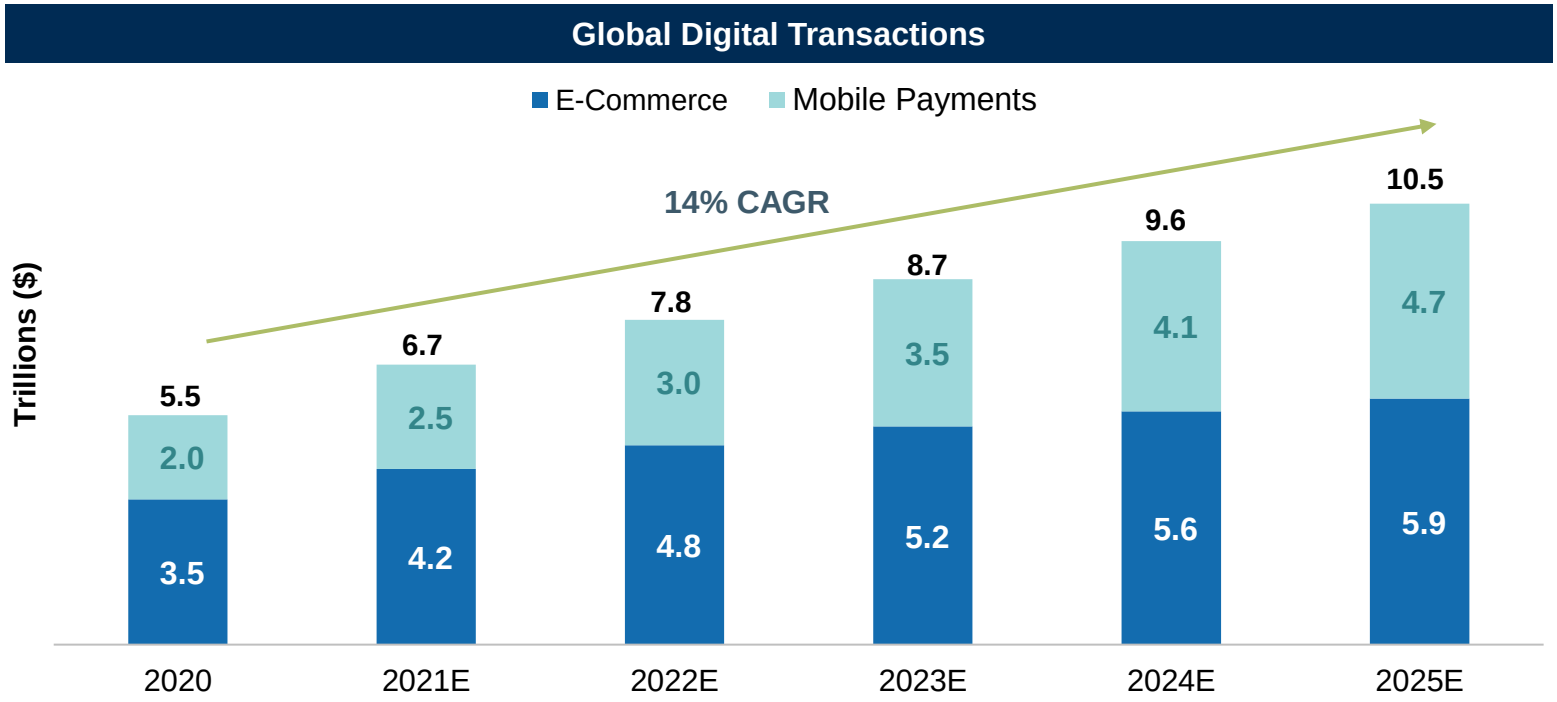
Drivers of IoT Spending



Source: Sensor market forecast from MarketWatch, July 2020, and drivers of IoT spending from 451 Research survey, December 2019.

Enduring Themes
Digital Payments

- Digital payments continue to outgrow the broad economy as they gain penetration, driven by increasing e-commerce and mobile payments
  - China has the largest volume of digital payments and Europe is growing fastest
- Payment networks, processors and software companies can capitalize on the trend

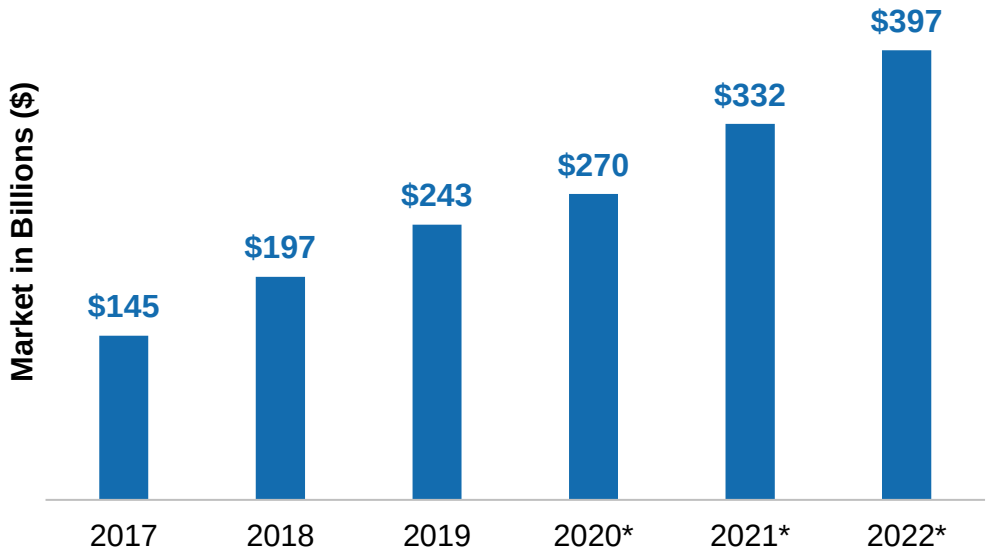


Source: Statista Digital Market Outlook 2021. CAGR is compound annual growth rate, the rate of return required for a quantity to grow from its beginning balance to its ending balance. Mobile payments occur when smartphones are used to process transactions using wireless communication or scan QR barcodes.

Enduring Themes
Cloud Computing

- Cloud computing optimizes IT assets, reducing costs and improving flexibility and accessibility
  - The growth in online streaming entertainment, e-commerce, work from home, telehealth, e-sports, and virtual learning are all enabled by cloud computing

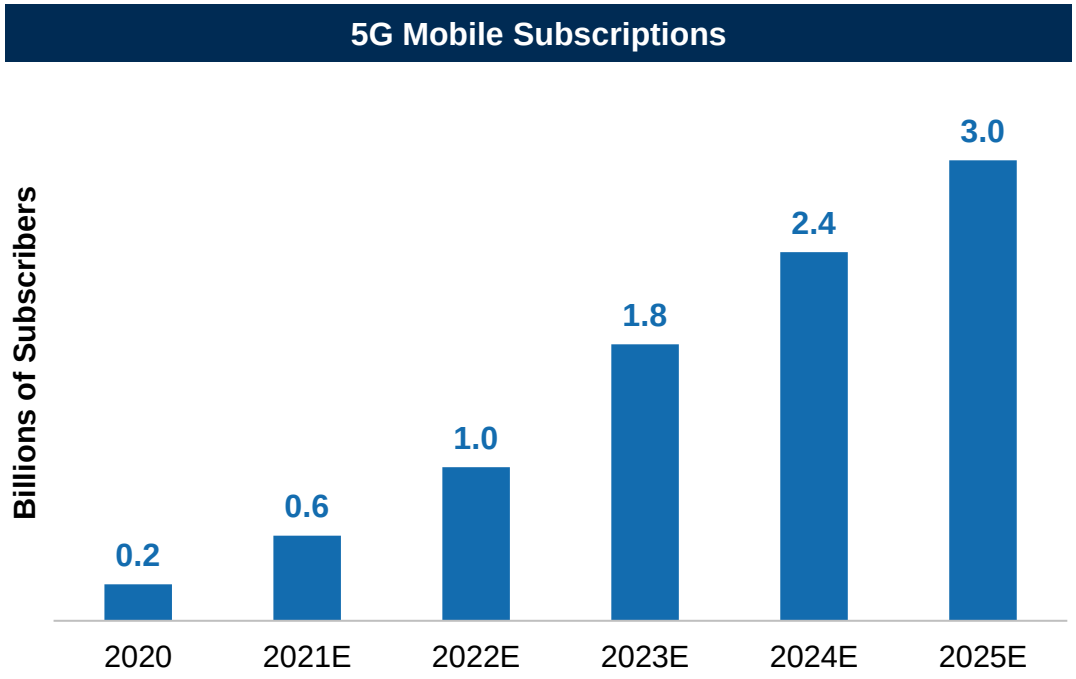
Cloud Computing Market Is Growing Rapidly



Source: Gartner, April 2021. *Forecast. Market includes cloud application services, infrastructure services, business process services, and security.

Enduring Themes
5G Wireless

- The next generation of wireless technology, 5G, is bringing faster speeds, increased capacity, much lower latency and more efficient spectrum utilization
  - 5G helps enable telematics, advanced health care monitoring, remote work, augmented/virtual reality and autonomous driving applications

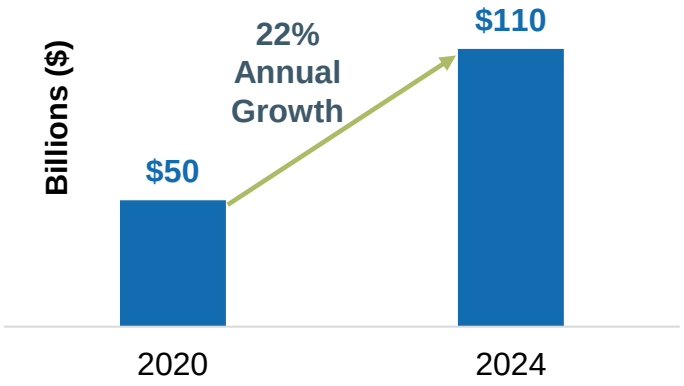


Source: 5G Americas, May 2021.

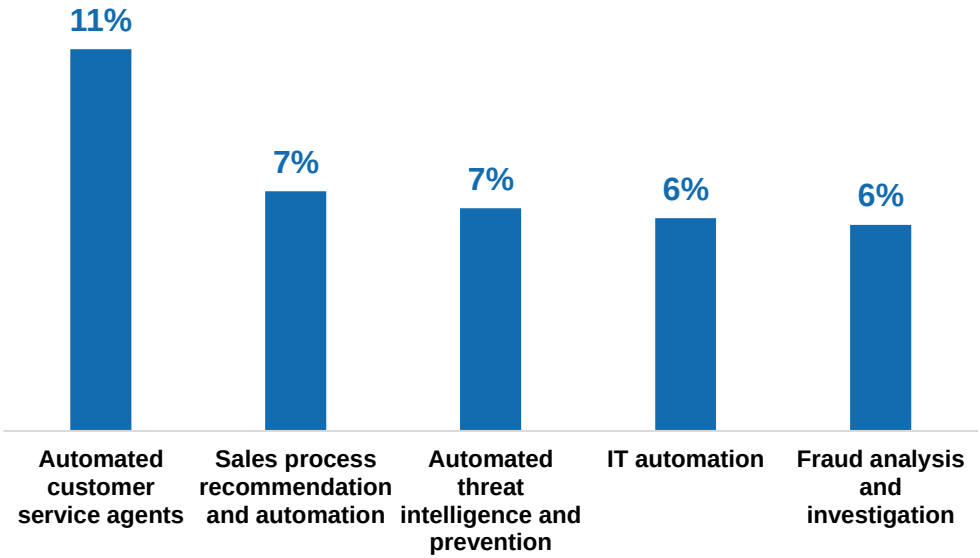
Enduring Themes
Artificial Intelligence

- "AI systems can now compose text, audio, and images to a sufficiently high standard that humans have a hard time telling the difference." – Stanford University AI Report 2021
- Investment in AI has been most prolific in drug development, autonomous driving, education, software development, speech, fraud detection/prevention*

Global AI Spending



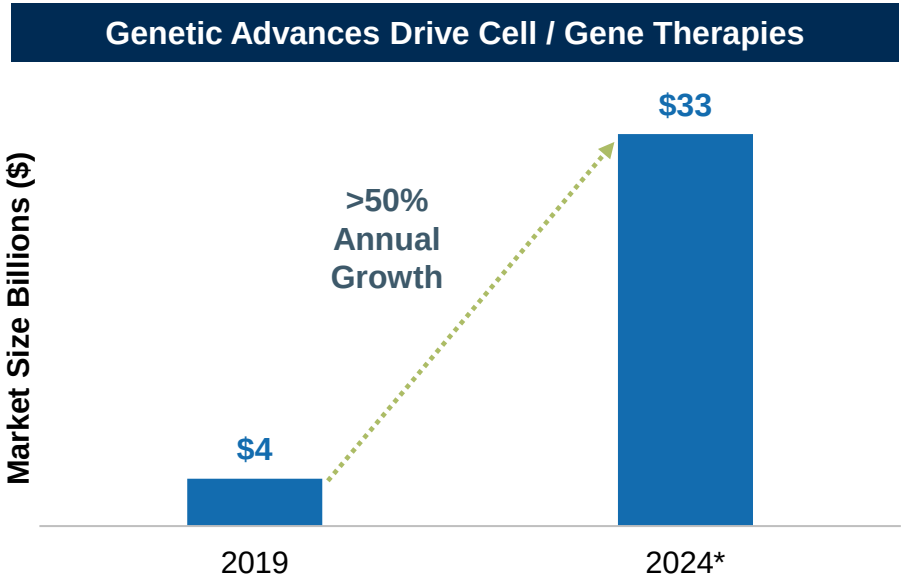
Leading AI Use Cases



Source: AI spending and use cases from IDC, August 2020. *Stanford Artificial Intelligence Index, 2021 annual report.

Enduring Themes
Genomics Innovation

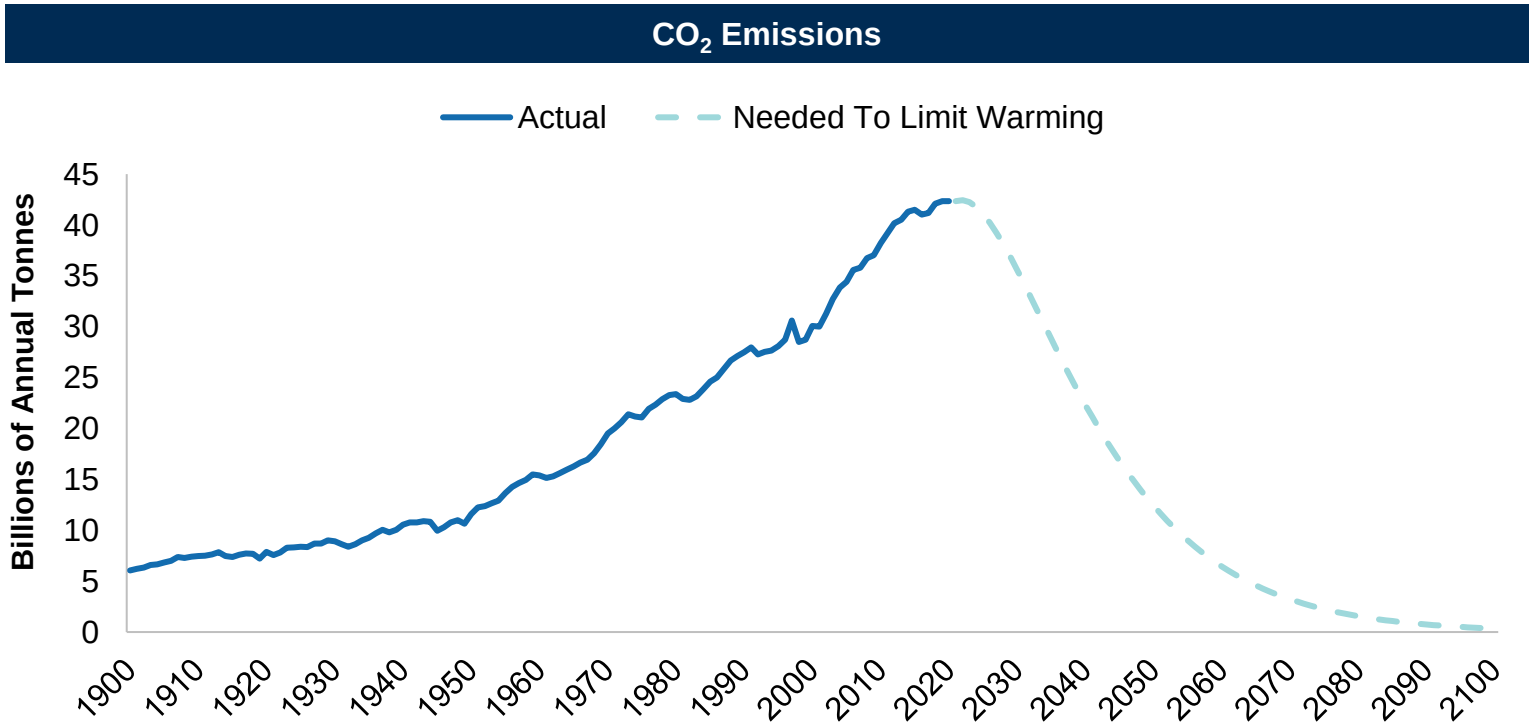
- Genetic analysis and manipulation will increasingly impact the practice of health care
  - Turning sick care into preventive health care by giving insight into predisposed diseases
  - Delivering more efficacious treatments via targeted therapies (e.g., immuno-oncology)



Source: Cell & gene therapy market data from Cryoport, 2020. *Estimated.

Enduring Themes
Emission Reductions

- The rate of CO_2 emissions is not sustainable in our view
- Reducing emissions may provide opportunities in alternative energy sources and in electric vehicles and related products and services

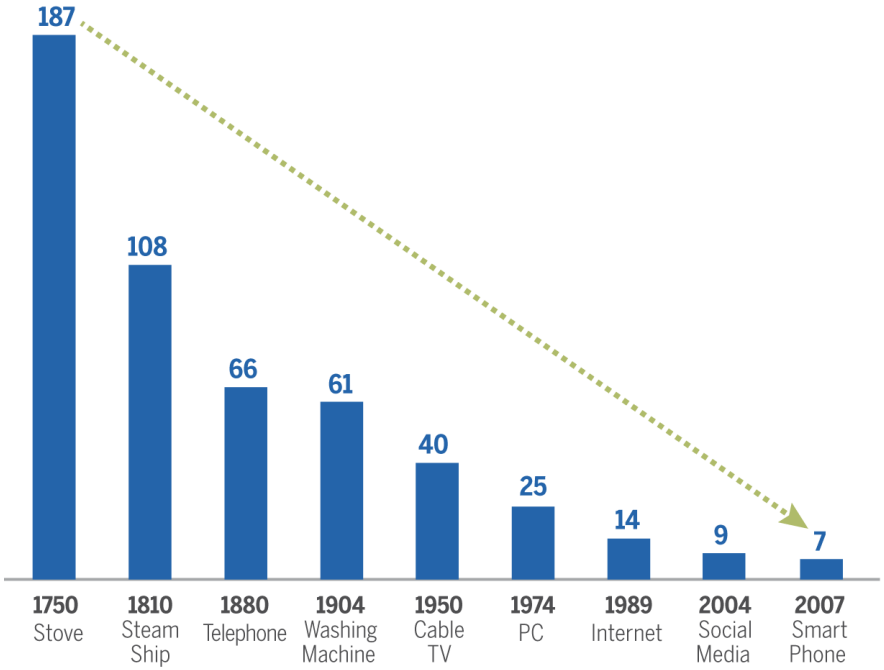


Source: Robbie Andrews (2019) based on Global Carbon Project & IPPC SR15. Carbon budget based on >66% probability of staying below 2ºC warming, beginning in 2021.

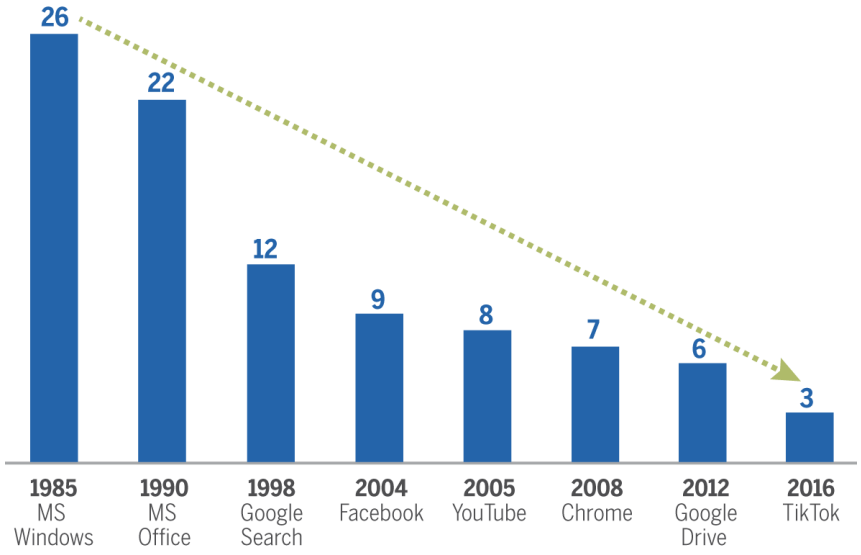
Style Wars
Accelerating Change

- Innovation is accelerating across many areas of the economy, causing new products and services to diffuse through society faster and disrupt businesses at a greater pace
- This may be a tailwind to growth companies, which we believe are the drivers of innovation, and a headwind to value stocks, which may be victims of change

Years from Market Entry to 50% Penetration



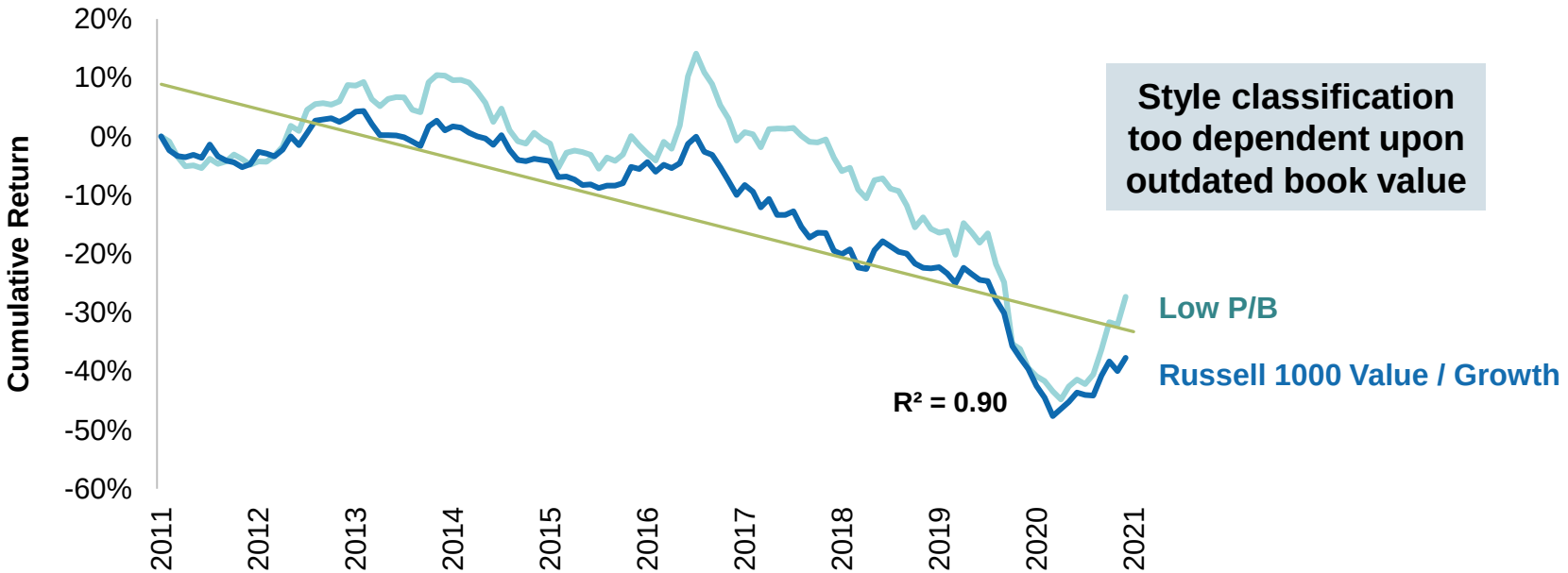
Years to Reach 1 Billion Users



Source: Asymco, Visual Capitalist, company disclosures, Alger estimates.

Style Wars
Structural Issues Driving Growth vs. Value

- Even after underperforming this year, Growth stocks have dramatically outperformed Value stocks over the past decade
- The driver has been the very weak performance of the Price-to-Book valuation metric, which is used heavily in index classifications of Growth vs. Value stocks
- As accounting fails to keep up with the changing economy, book value may no longer be as relevant (e.g., R&D is not capitalized in book value)



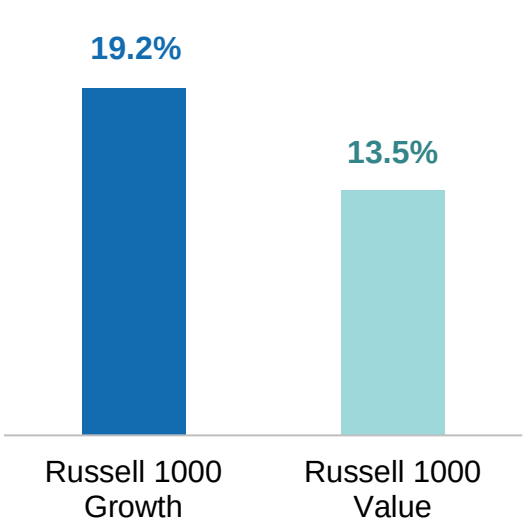
Source: FactSet, Kenneth R. French, and Alger through May 2021. Low price-to-book returns are based on the B/P Frama/French factor for the CRSP universe which includes US firms listed on the NYSE, AMEX, or NASDAQ . **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

Style Wars
The Growth Advantage

- Three variables drive P/E multiples: growth, return on capital, and risk
- The Russell 1000 Growth Index has higher expected EPS growth, higher return on equity, and lower risk in the form of better balance sheets as compared to the Russell 1000 Value Index

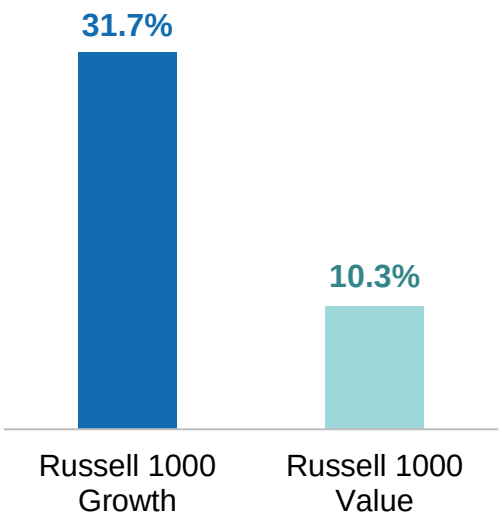
Stronger Growth

Long-Term EPS Growth



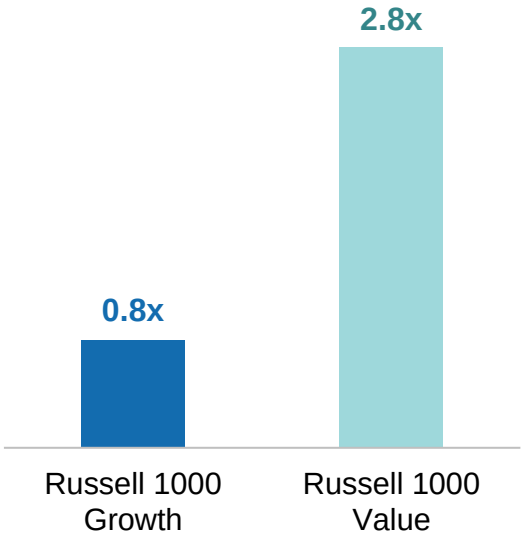
Higher Returns

Return on Equity



Lower Risk

Net Debt / EBITDA

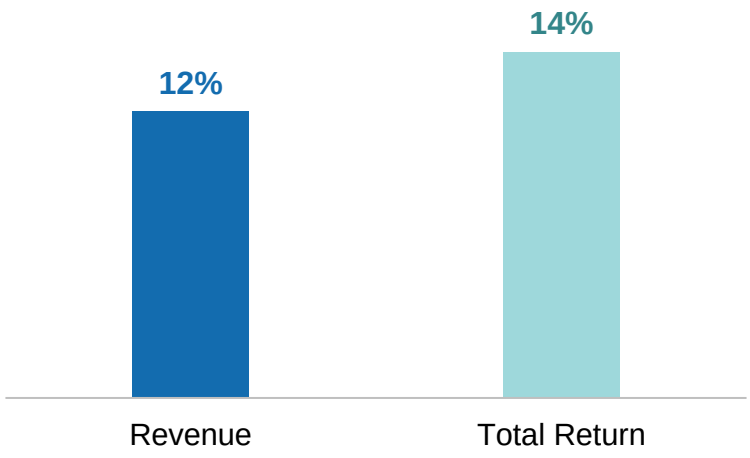


Source: FactSet as of 6/30/21. Growth represents consensus long-term analyst estimates and actual future EPS growth rates might be materially different than the forecasts shown.

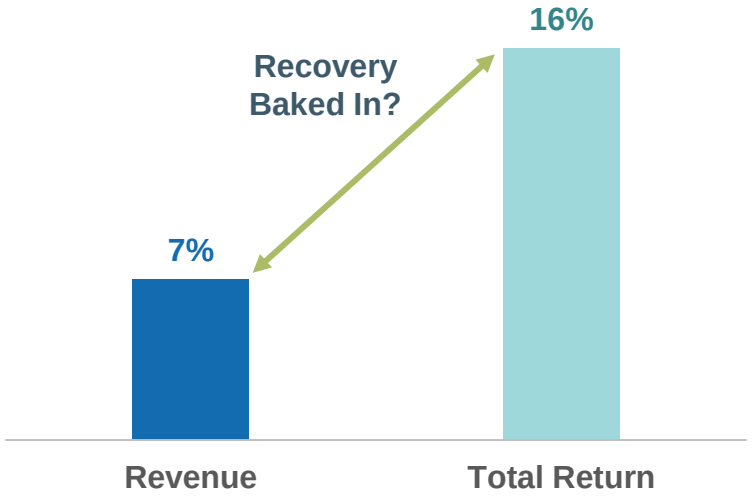
Style Wars
Great Expectations

- Growth stock prices and fundamentals have increased in-line with each other
- Value stock prices have outpaced their fundamentals, indicating lofty expectations

S&P 500 Growth Year-to-Date Change



S&P 500 Value Year-to-Date Change

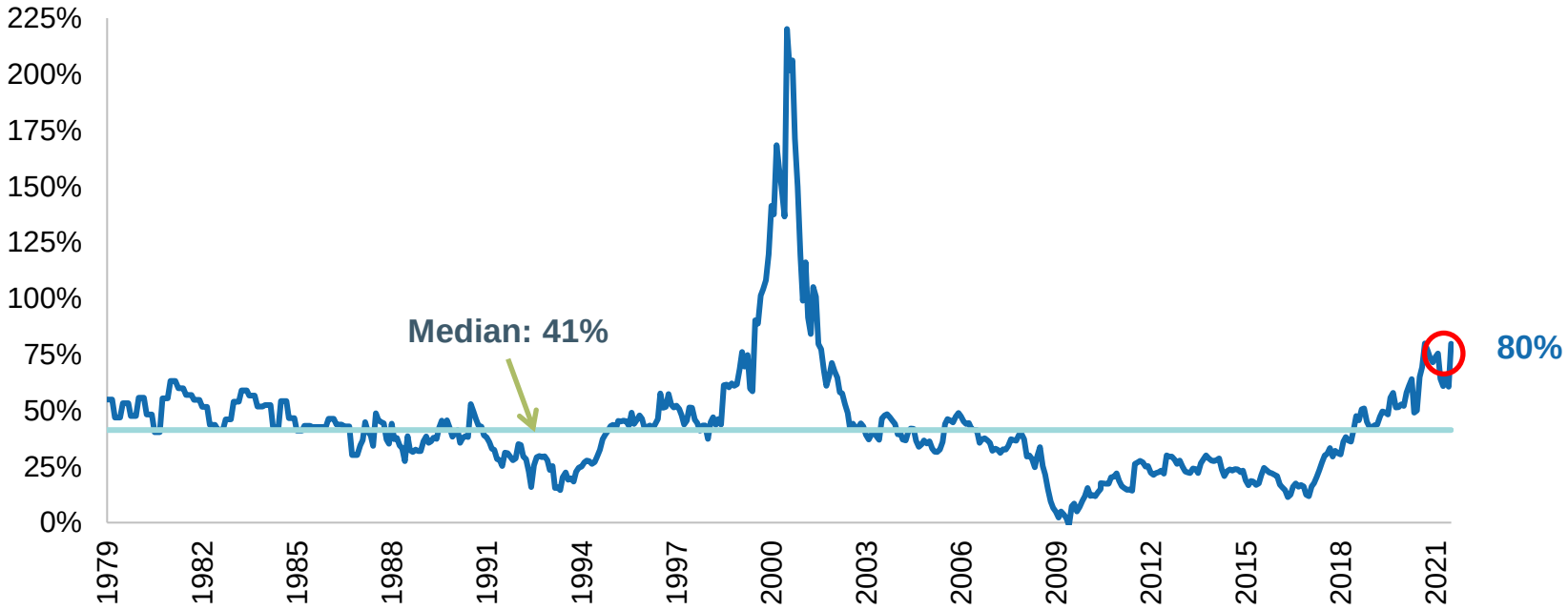


Source: FactSet as of 6/30/21. Revenue is based on consensus bottom-up estimates for next 12-month revenue forecasts. **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

Style Wars
What Does Growth Cost?

- Growth stocks remain in favor and trade at a valuation premium to Value stocks based on faster growth, higher return on capital, and lower leverage
  - Note that faster growth is theoretically worth more at lower levels of interest rates

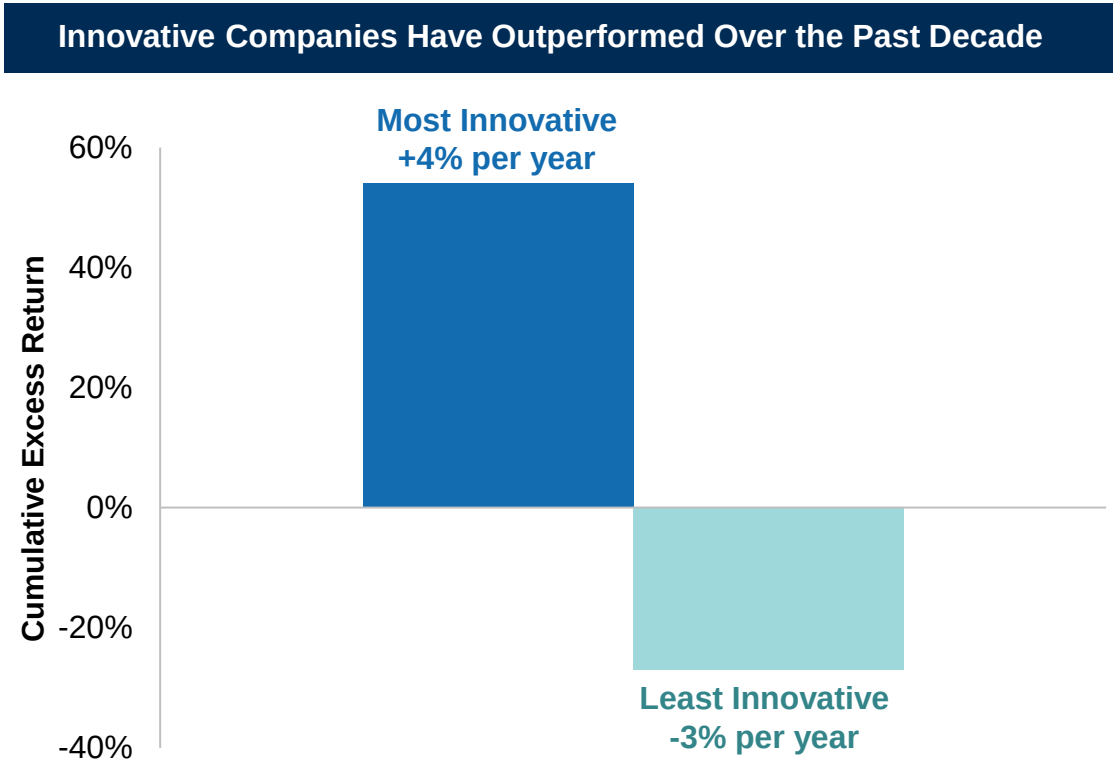
Russell 1000 Growth Relative to Russell 1000 Value P/E



Source: FactSet as of 6/30/21. **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

Style Wars
A Powerful New Investing Factor?

- Studies have shown and our research demonstrates that the most innovative companies grow their sales, earnings, and stock prices faster*



Source: FactSet. Most/least innovative stock excess performance is derived from highest and lowest S&P 1500 quintiles based on R&D as % of sales, normalized for market value, using one month returns for 10 years ending May 2021. *Baruch Lev and Suresh Radhakrishnan, "The Stock Market Valuation of R&D Leaders." **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

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