

# ALGER

Inspired by Change, Driven by Growth.

Winter 2022

## Capital Markets: Observations and Insights

Tangled Up in Tightening?



Signatory to the PRI and carbon neutral.

# Tangled Up in Tightening?

In what is a long-standing analogy, central banks provide the punch at the economic party to keep executives and investors happy, but when central bankers raise interest rates and take away the proverbial punchbowl, the party becomes much less fun (and profitable).

With real short-term interest rates deeply negative, there may be too much punch at this party. However, while some tightening of monetary policy may need to occur via higher short-term interest rates and the contraction of the Federal Reserve's balance sheet, that doesn't mean the party needs to turn into a funeral. We believe the economic expansion has significant drivers of growth, such as large pent-up savings that exist throughout the global economy and the potential for a meaningful inventory build as supply chain pressures ease. Moreover, equity market and economic problems have historically appeared after a significant amount of tightening – a long way off from where we are now, in our view.

How will this tightening cycle play out? How do you have fun at a party where the punch is being removed? On the pages that follow we'll try to answer those questions, but in short, our view is don't party too hard and expect the economic music to keep playing loudly. In investing, we believe that means having exposure to secular growth and innovation rather than the economic cycle.



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# Key Observations and Themes

I

## Tangled Up in Tightening?

3

With the Federal Reserve's intent to hike interest rates, the impact of tighter monetary policy is a focus for investors. We look to past cycles for insight into the future.

II

## Economic Crosscurrents

11

Excess savings, inventory re-building, and still-recovering areas of the economy are tailwinds, but less accommodative monetary and fiscal policy are headwinds.

III

## Looking Abroad

17

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

IV

## Enduring Themes

21

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

V

## Style Wars

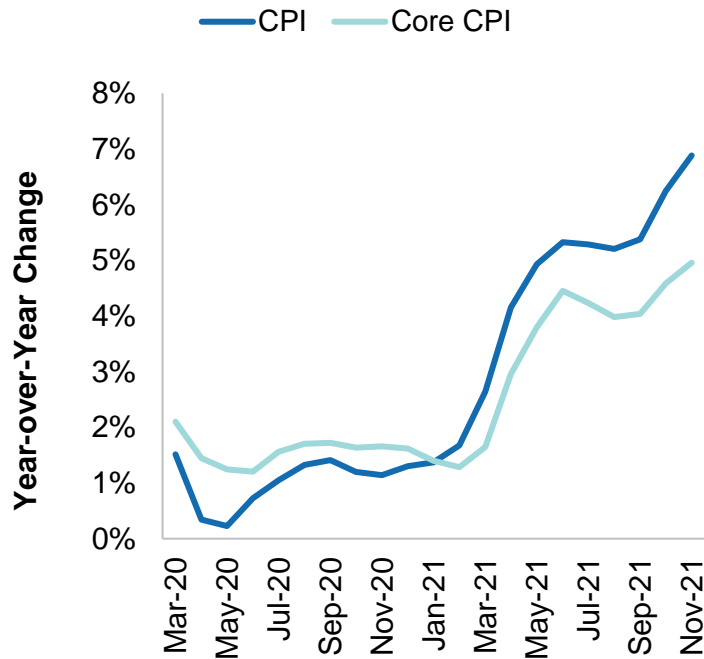
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Powerful structural forces may keep the long-term trend of Growth outperformance intact, in our view.

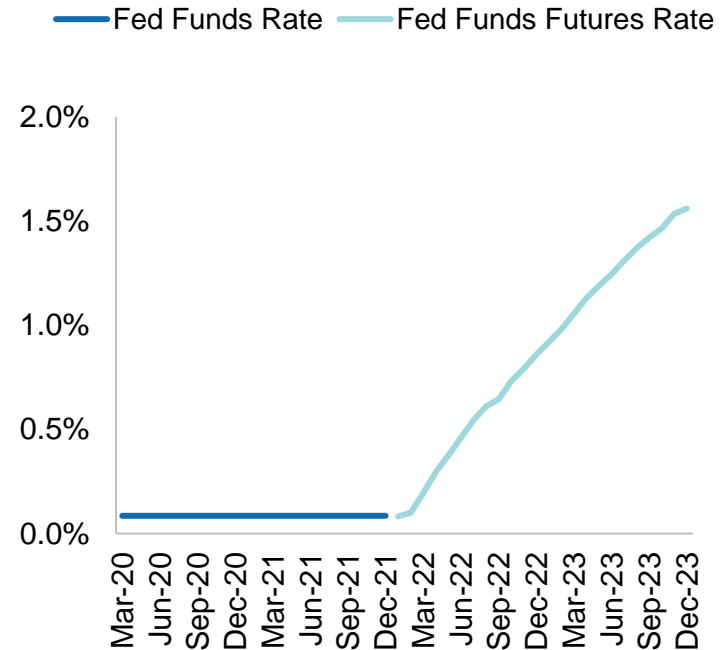
# Tangled Up in Tightening? Great Expectations

- Elevated inflation combined with low existing interest rates have driven the expectation for higher Federal Funds rates

## Inflation Pressures Driving...



## ...Fed Tightening Expectations



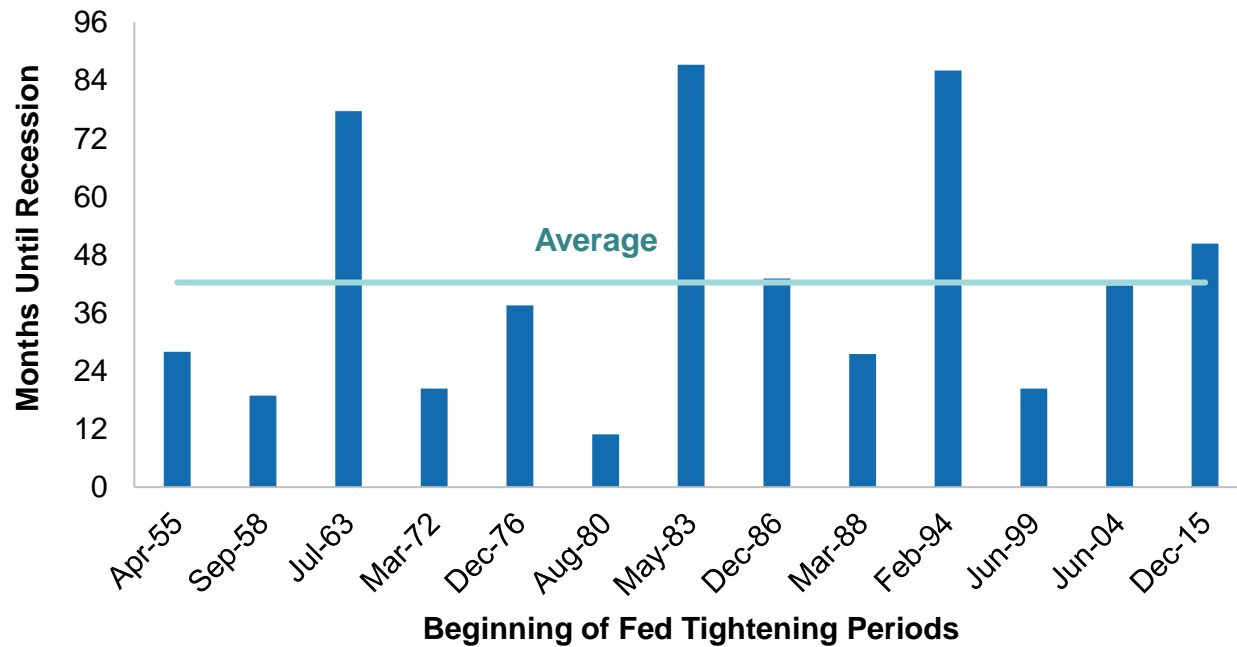
Source: FactSet, U.S. Bureau of Labor Statistics, CME Group as of early January 2022. The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by U.S. urban consumers for a market basket of consumer goods and services. Core CPI excludes food and energy.

# Tangled Up in Tightening?

## Long Lag from First Hike To Recession

- Many people believe that the tightening of the money supply ultimately drives most recessions
- However, that process has historically taken several years

How Long Until Recession?



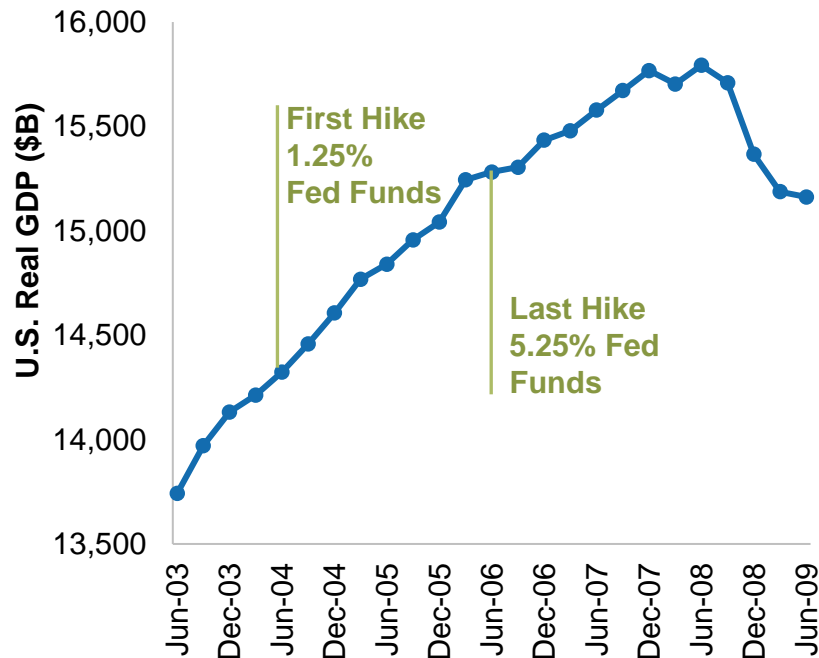
Historically, it has typically taken several years from first rate hike until recession

Source: Federal Reserve, NBER, FactSet, Alger.

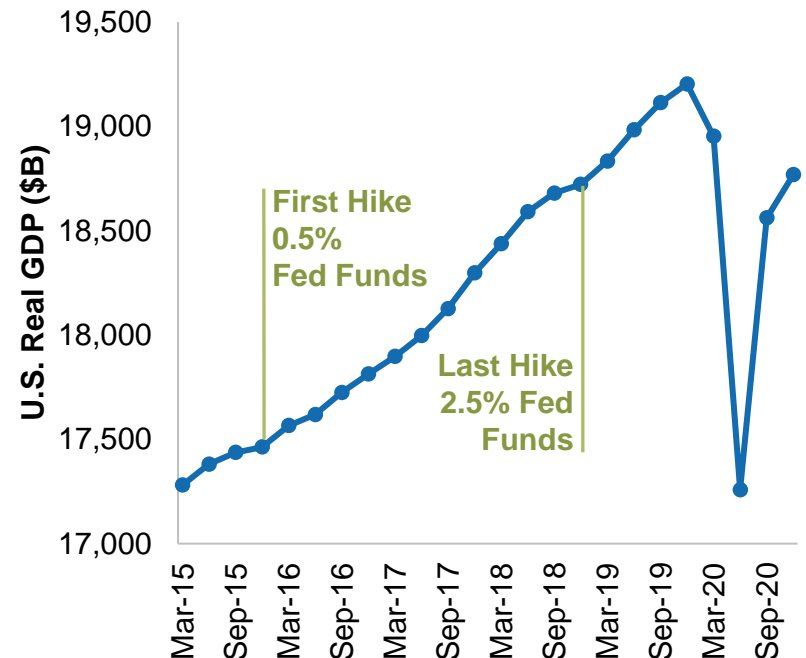
# Tangled Up in Tightening? Growth Despite Higher Rates

- U.S. GDP has historically grown through Fed tightening cycles
- Economic declines have typically happened after the Fed finished raising rates

### 2004-2006 Tightening Cycle



### 2015-2018 Tightening Cycle



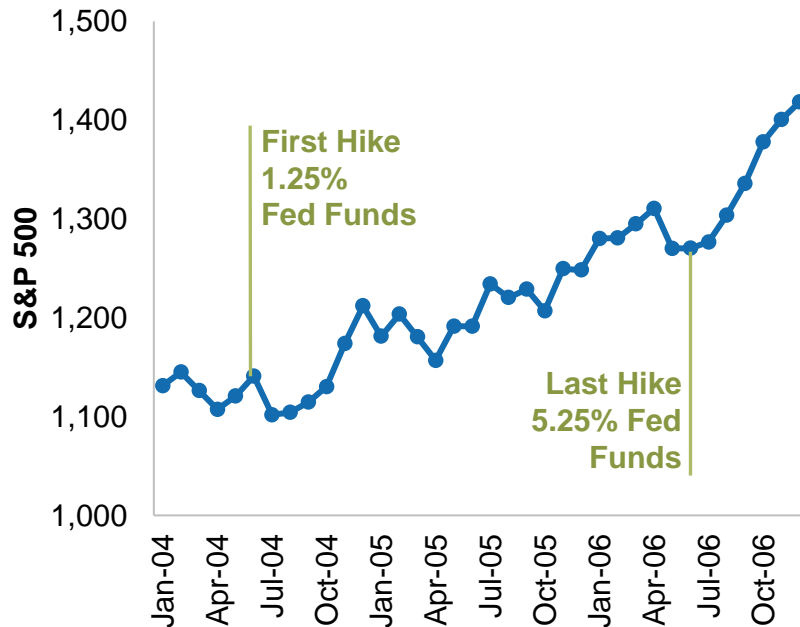
Source: FactSet., U.S. Bureau of Economic Analysis, Federal Reserve.

# Tangled Up in Tightening?

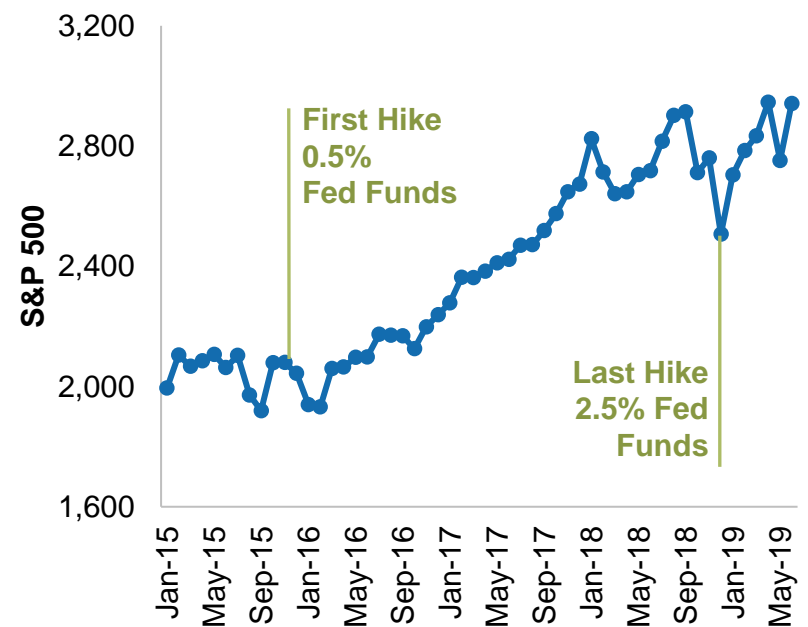
## Appreciation Despite Higher Rates

- Historically, U.S. equities have marched higher as the Fed raised rates
  - S&P 500 returns averaged 7% for the 12-month period after the first hike\*
- Equity declines typically happened at the end, or after, tightening cycles, not the beginning

2004-2006 Tightening Cycle



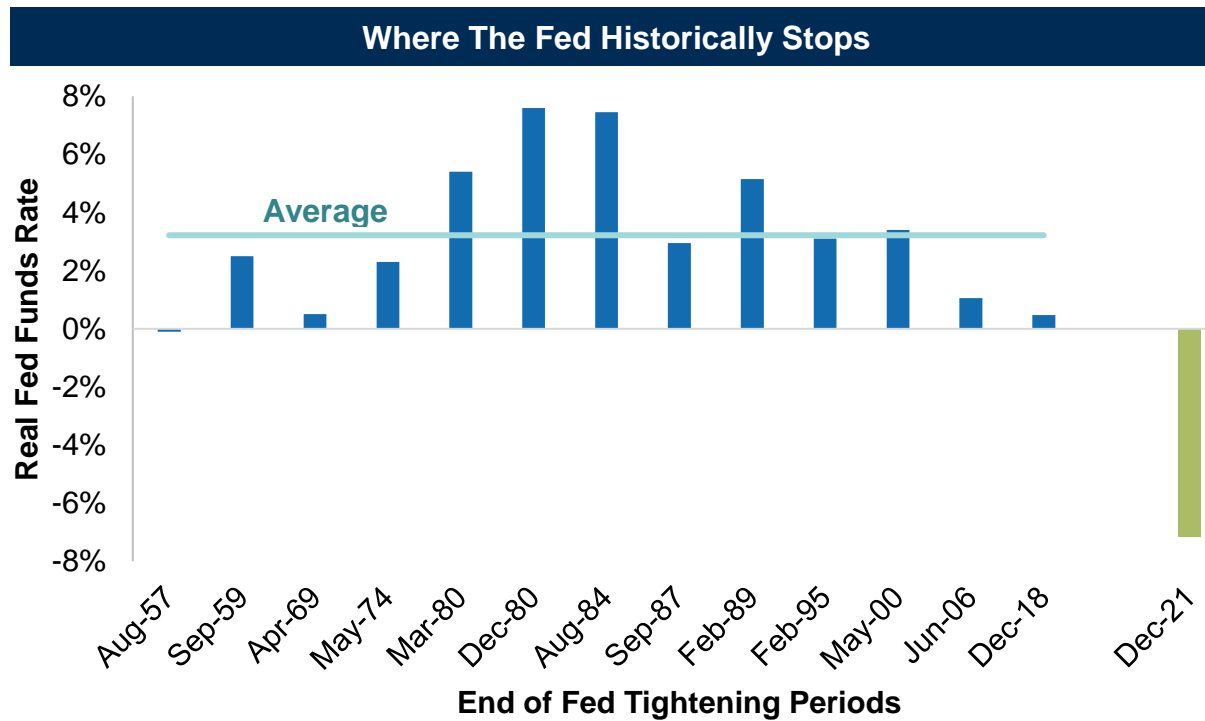
2015-2018 Tightening Cycle



Source: FactSet., U.S. Bureau of Economic Analysis, Federal Reserve.\*Average of the four most recent 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.

# Tangled Up in Tightening? Very Early in the Cycle

- The Fed has historically raised rates at least above inflation such that the real Federal Funds rate is positive
- The current real Federal Funds rate is very low relative to history - it appears tightening has a long way to go, in our view



**The real Federal Funds rate is very low relative to historical “neutral”**

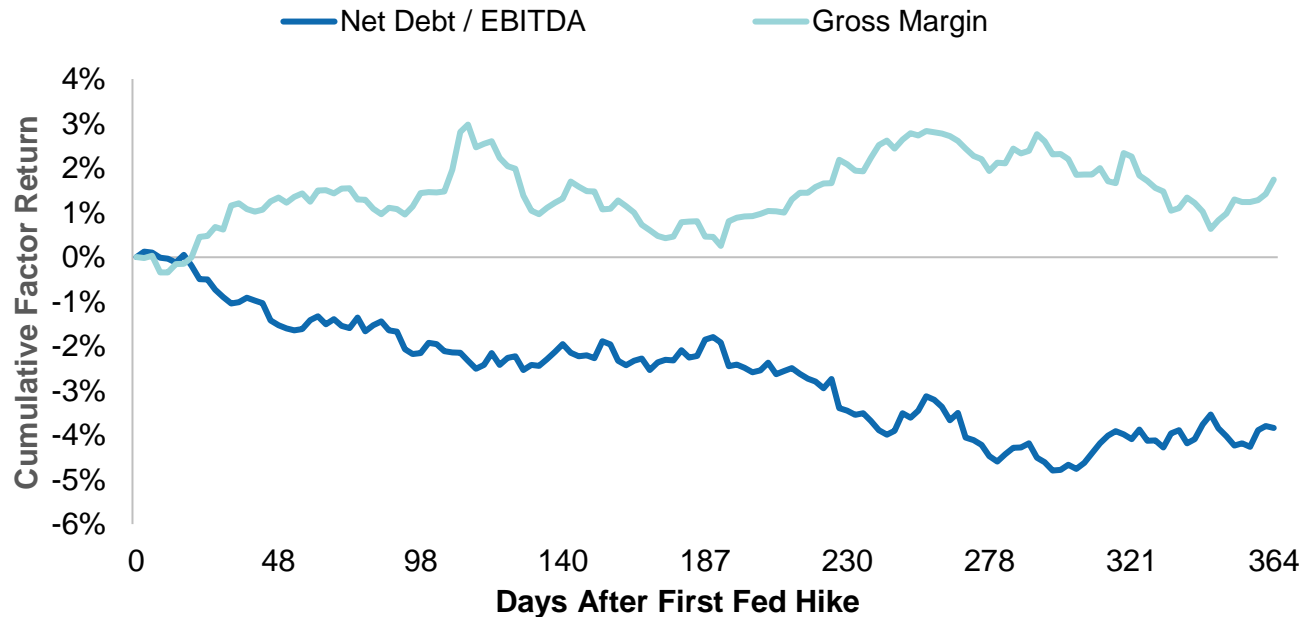
Source: FactSet., Federal Reserve, U.S. Bureau of Labor Statistics, Alger. The real Federal Funds rate is the Fed Funds rate of interest rate minus 12-month CPI inflation.



# Tangled Up in Tightening? Quality Rises to the Top

- Higher quality stocks, such as those with strong gross margins, have historically outperformed when the Fed is raising interest rates while lower quality stocks, such as those with weaker balance sheets, have historically underperformed

## Average Factor Returns After Last Four Tightening Commencements

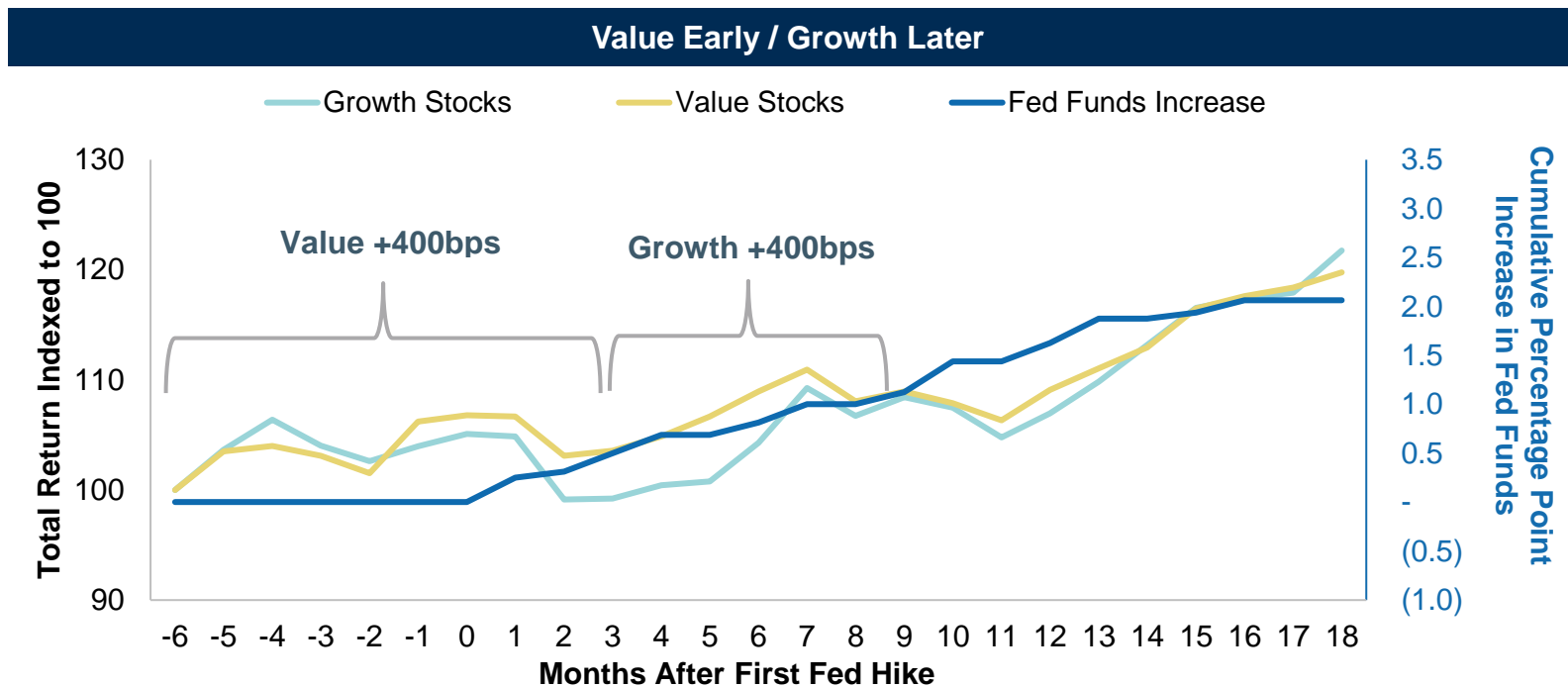


Source: Cornerstone Macro. Factor performance relative to the S&P 500, which is sector neutral and calculated daily, is calculated by taking the relative performance of the top quintile of stocks against the bottom quintile of stocks for a given characteristic/factor. The constituents in the quintiles are rebalanced monthly. Average of the four most recent tightening cycles beginning in February 1994, June 1999, June 2004, and December 2015. Net Debt / EBITDA is defined as  $(\text{Total Debt} - \text{Cash}) / \text{LTM EBITDA}$  and Gross Margin is defined as  $(\text{LTM Revenue} - \text{LTM COGS}) / \text{LTM Revenue}$ . **The performance data quoted represents past performance, which is not an indication or a guarantee of future results.**

# Tangled Up in Tightening?

## Which Style To Wear As Fed Hikes?

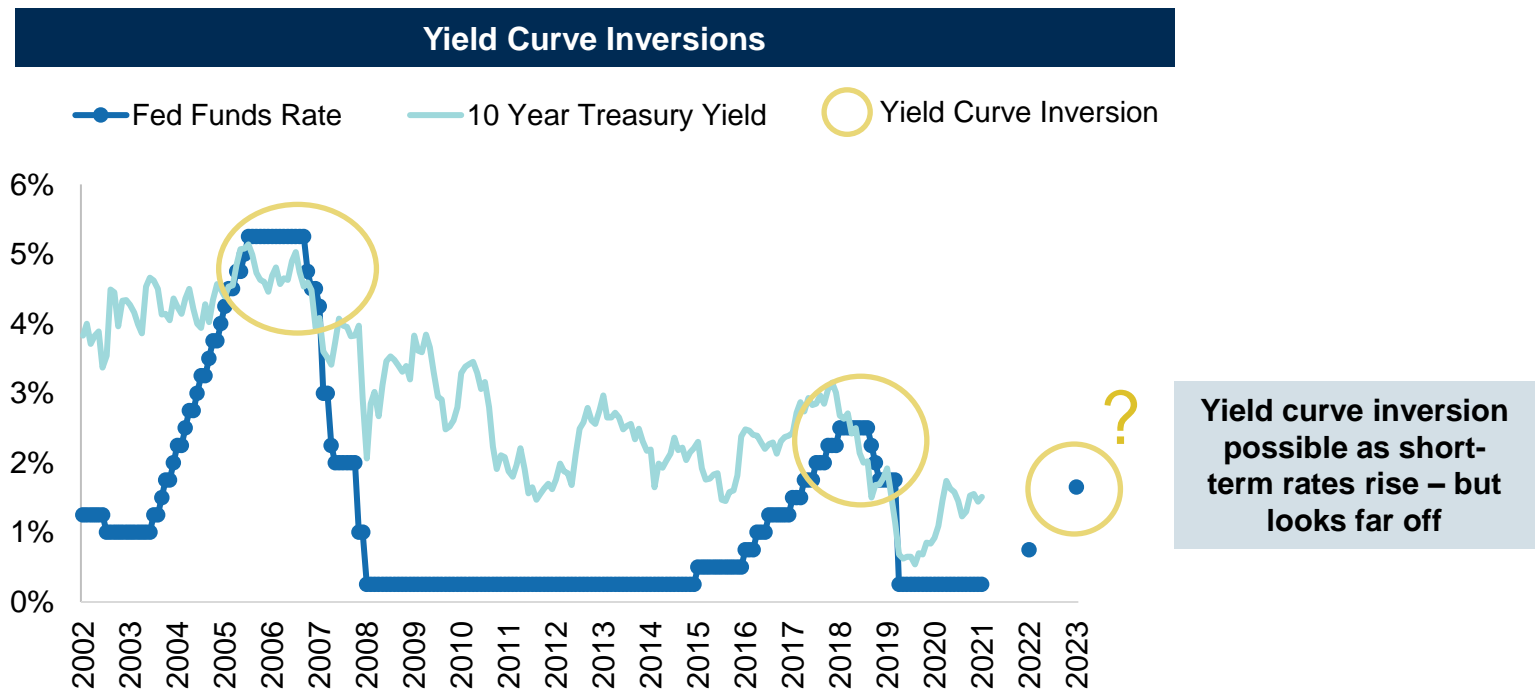
- Value stocks, which are generally more economically sensitive, have historically outperformed just prior to and early in the tightening cycle
- As investors begin to discount economic slowing due to tightening, Growth stocks tend to outperform, later in the cycle



Source: FactSet, Alger. Growth and Value stocks represented by Russell 3000 Growth and Russell 3000 Value, respectively. Median of the four most recent 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.**

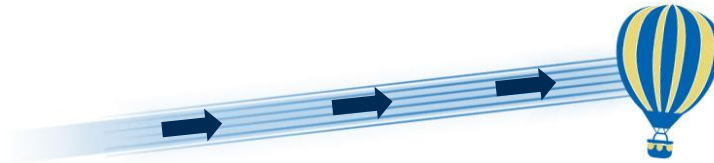
# Tangled Up in Tightening? The Dreaded Curve Ball

- An inverted yield curve, when long-term interest rates are below short-term rates, is often a good predictor of recession
- The Fed's forecast for short-term rates may indicate the potential timing of inversion
  - The punchline: we may have a long while yet to go in our view



Source: FactSet, Federal Reserve economic projections as of December 2021, Alger.

### Tailwinds



- Robust consumer savings
- Growing corporate profits
- Inventory rebuilding
- Strong labor market
- Recovery in depressed economic areas

### Headwinds



- Tightening monetary policy
- Inflation pressures
- Less accommodative fiscal policy
- Covid variants
- China growth slowdown



## Economic Crosscurrents

### Inventory Build Coming?

- Supply chain problems have hampered production and driven low inventory levels
- As supply-chain pressures ease, companies may be able to increase inventories back to normal, potentially adding several points of GDP growth

#### Inventory Levels Are Low Relative to History



**Normalization of inventory levels should boost economic activity**

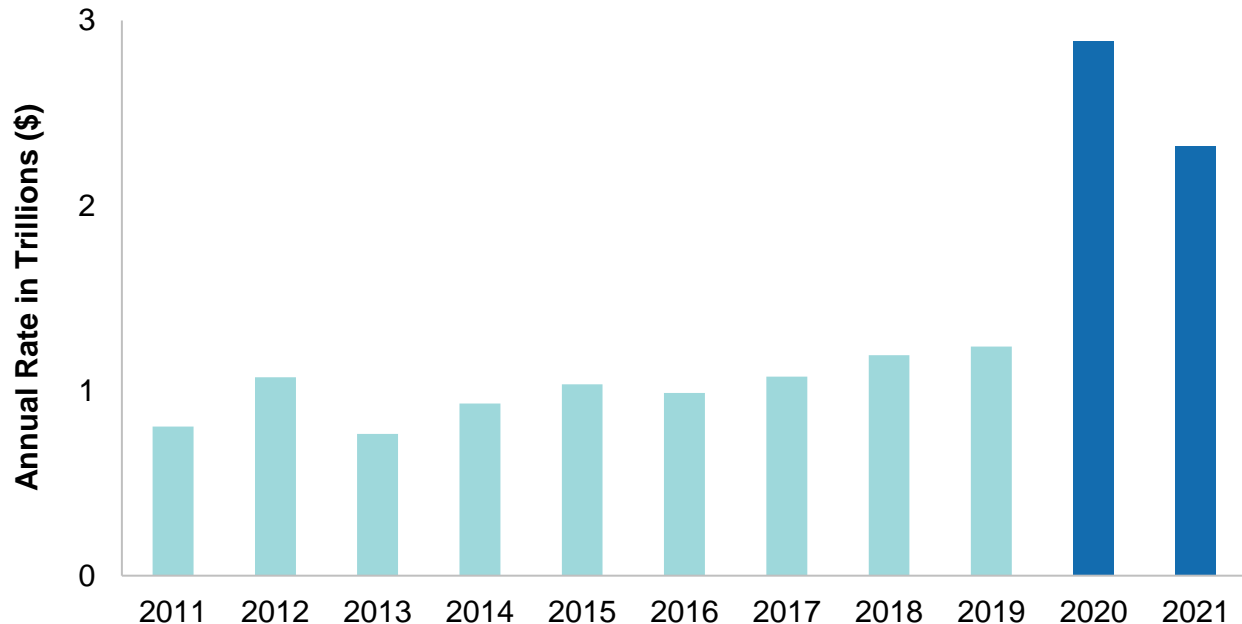


## Economic Crosscurrents

### 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. 2021 is average of monthly data through November 2021.

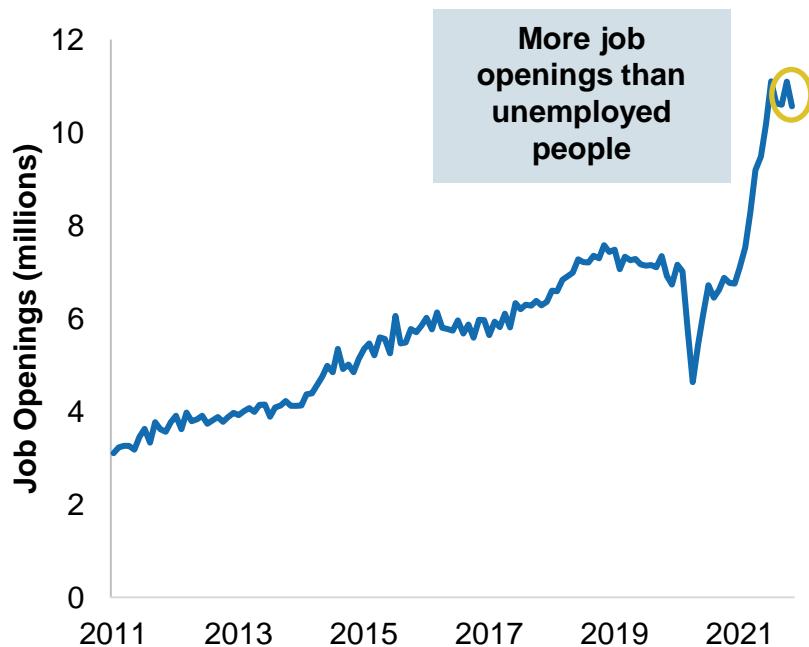


# Economic Crosscurrents

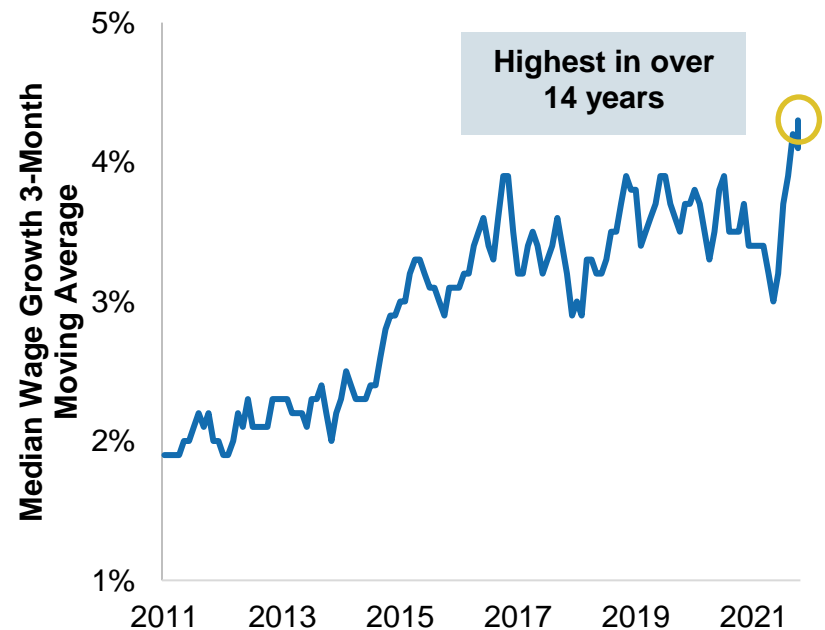
## Tight Labor Market

- The labor market is one of the key drivers for Fed tightening, and by various metrics, it is the tightest in a long time
- Wage growth has recently broken out from its multi-year range and is threatening to push higher – potentially boosting nominal spending but also inflation

### Record U.S. Job Openings...



### ...Driving Higher Wages



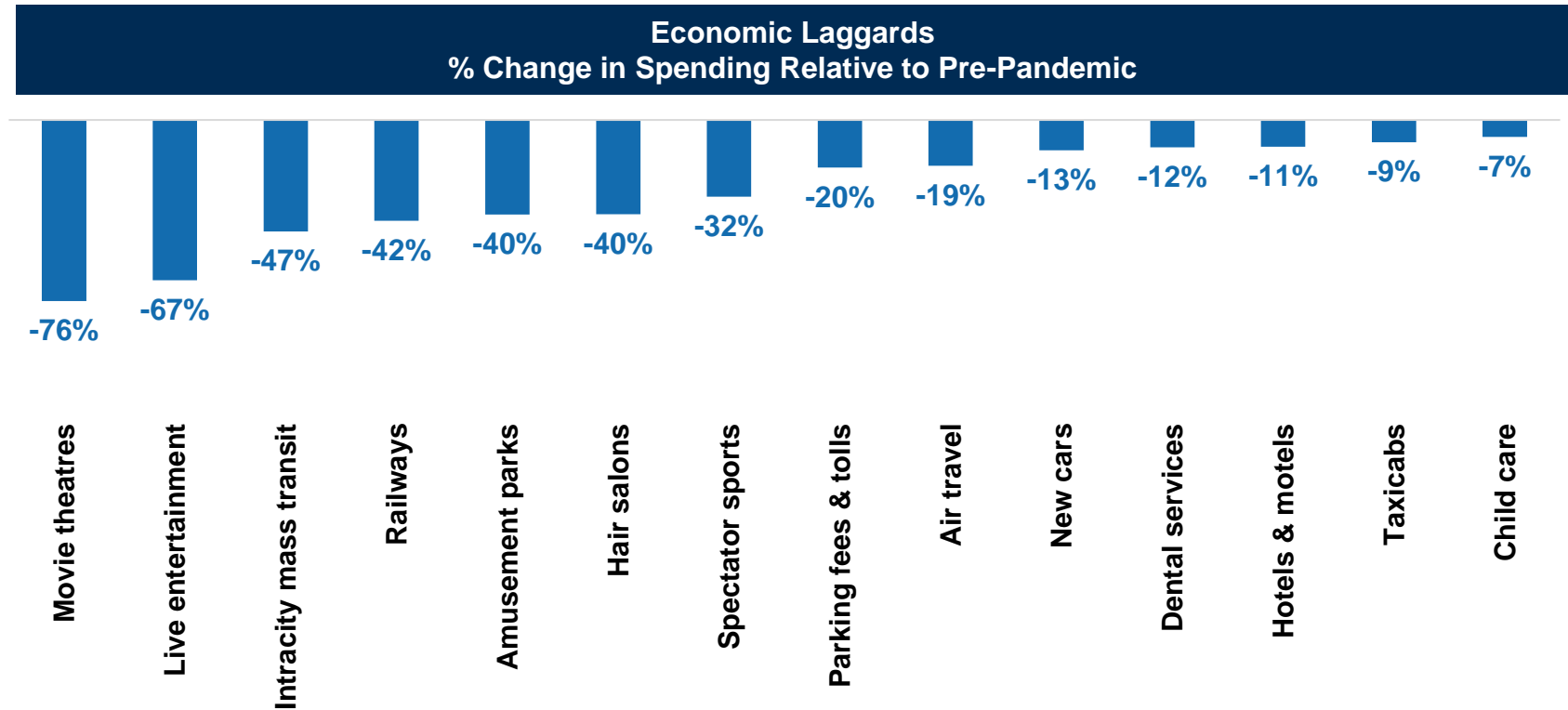
Source: U.S. Bureau of Labor Statistics, Federal Reserve Bank of Atlanta.



# Economic Crosscurrents

## Reopening Tailwind

- Some areas of the U.S. economy have not yet recovered including spending in travel & leisure, personal care, and transportation
- As life returns to normal, spending in these categories should grow



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



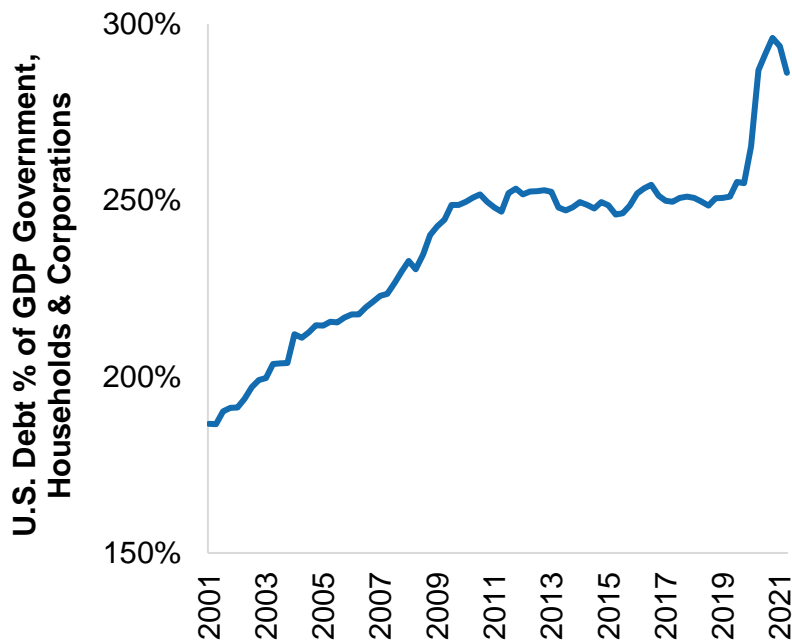


# Economic Crosscurrents

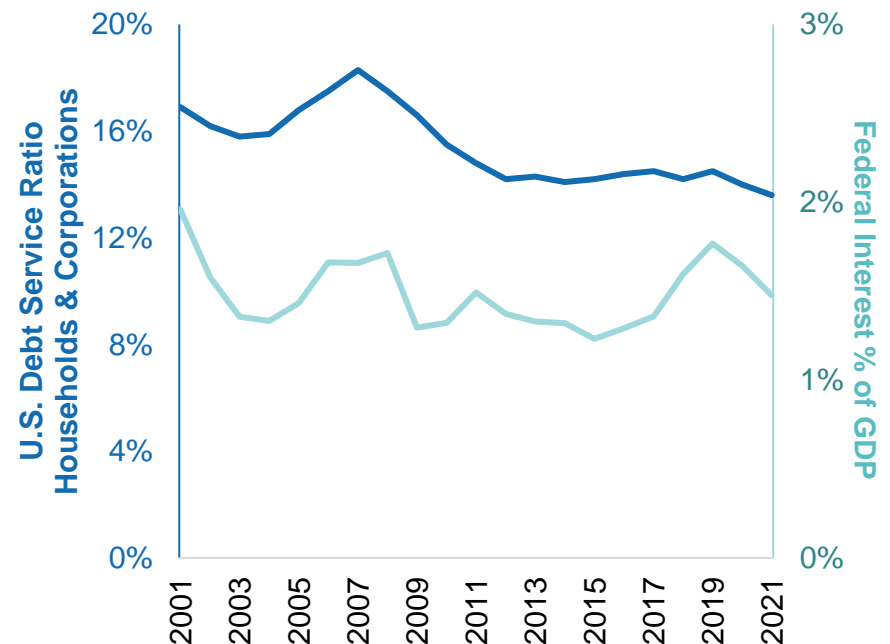
## No Debt Hangover Yet?

- 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

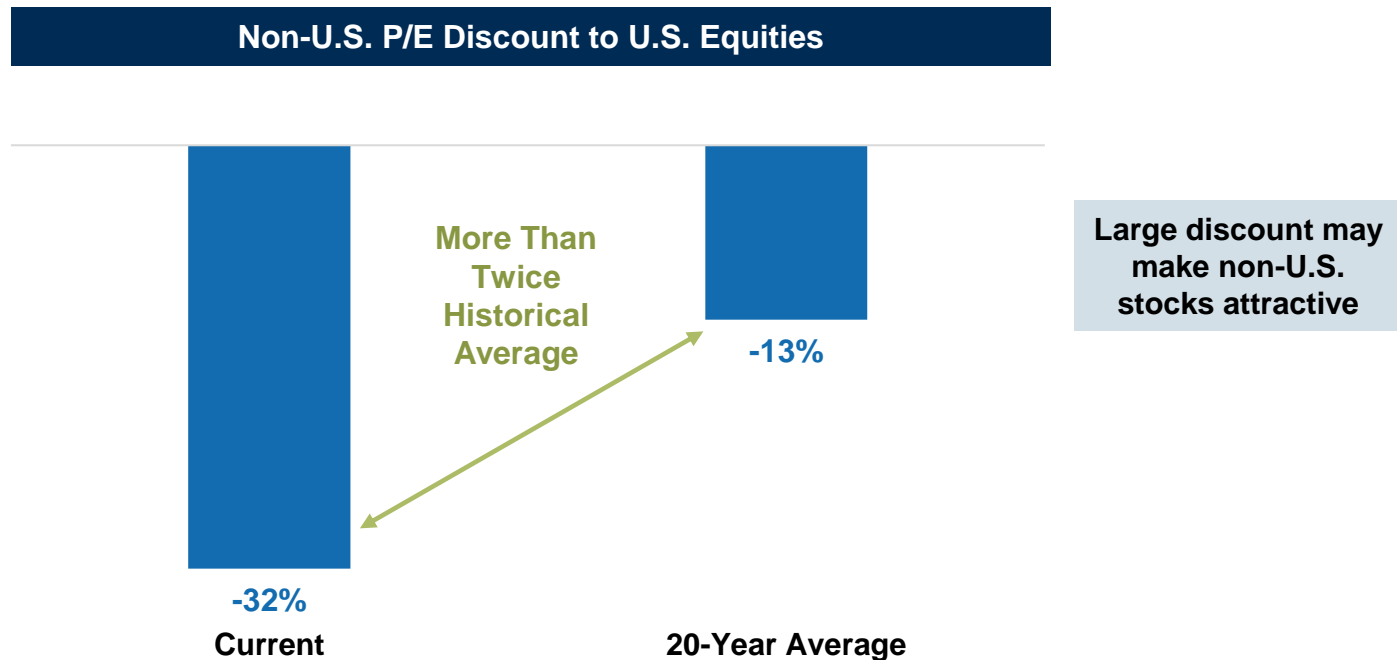


Source: Bank for International Settlements, December 2021 and Congressional Budget Office. Debt Service Ratio is the share of income used for interest payments and amortizations in the non-financial private sector.



## 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



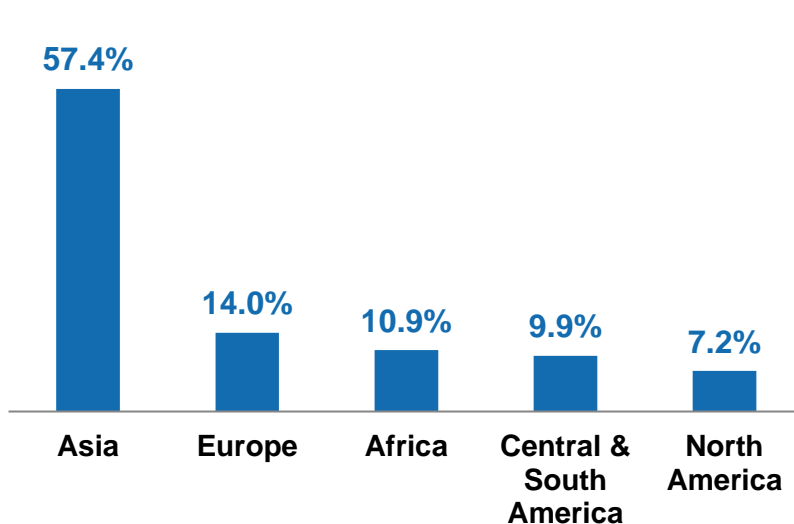
Source: FactSet and Alger as of 12/31/21. Non-U.S. stocks represented by MSCI AC World ex-U.S. index. U.S. stocks represented by S&P 500.



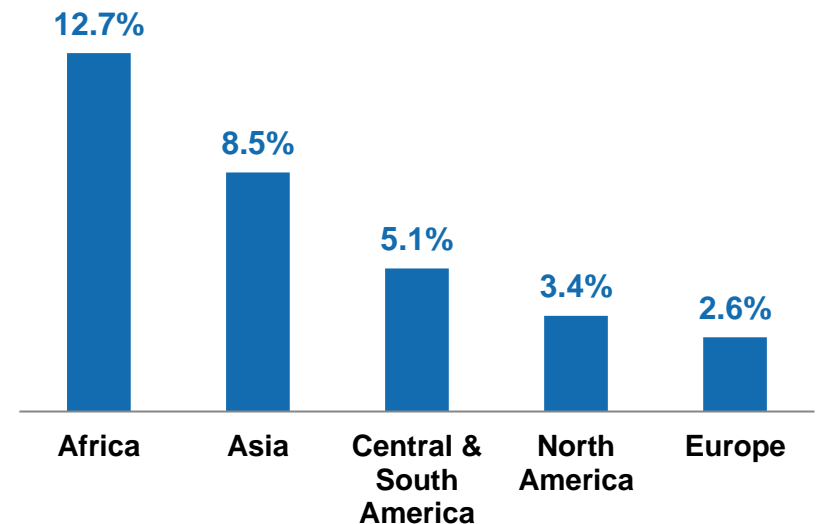
## Looking Abroad A Wide Digital World

- There are over four billion internet users in the world, and most are outside of the U.S.
- The U.S. does not lead the world in time spent online, internet adoption, download speed, e-commerce penetration, or mobile payment penetration
  - Yet there are still over 700m people in India, 500m in China, and hundreds millions of others not online, which represent future growth outside of the U.S.

Share of Global Internet Users



Year-Over-Year Growth of Global Internet Users

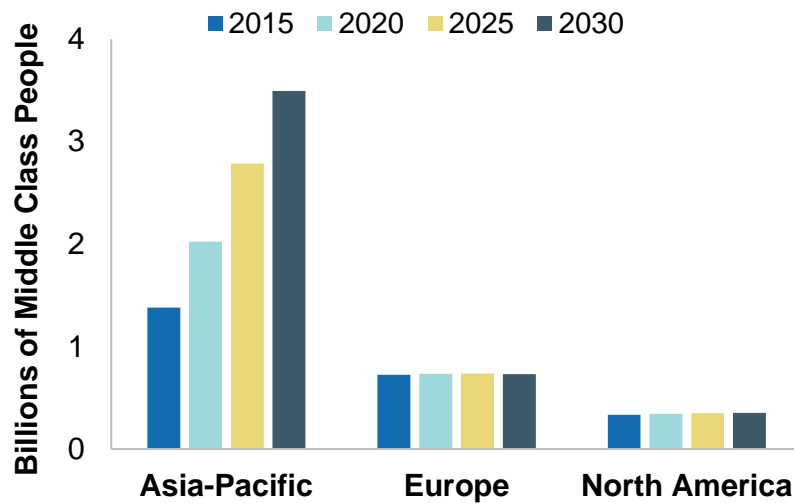




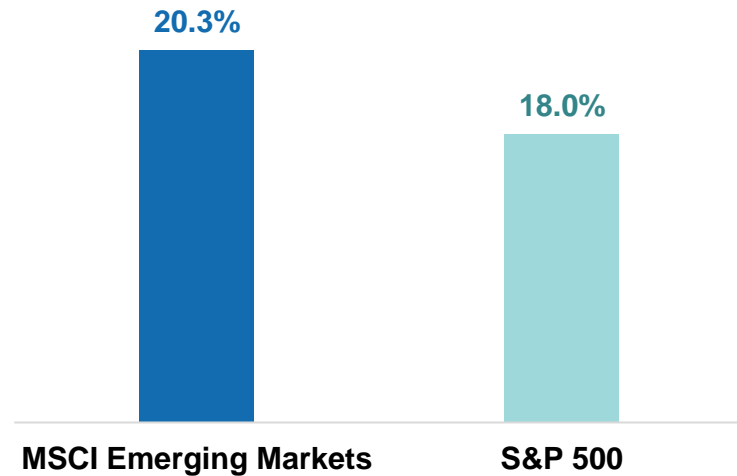
## Looking Abroad Emerging Market Growth

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

### The Asian Middle Class Is Expected to Grow



### Long-Term EPS Growth Greatest in EM



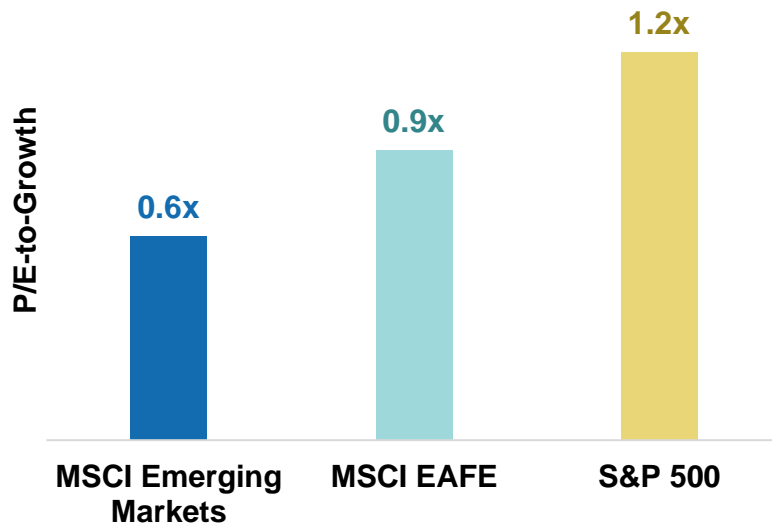
Source: Middle class estimates from Brookings Institution. A middle-class family has an approximate income of \$16,000 to \$160,000 in purchasing power parity terms. EPS growth estimates from FactSet as of 12/31/21.



## 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.

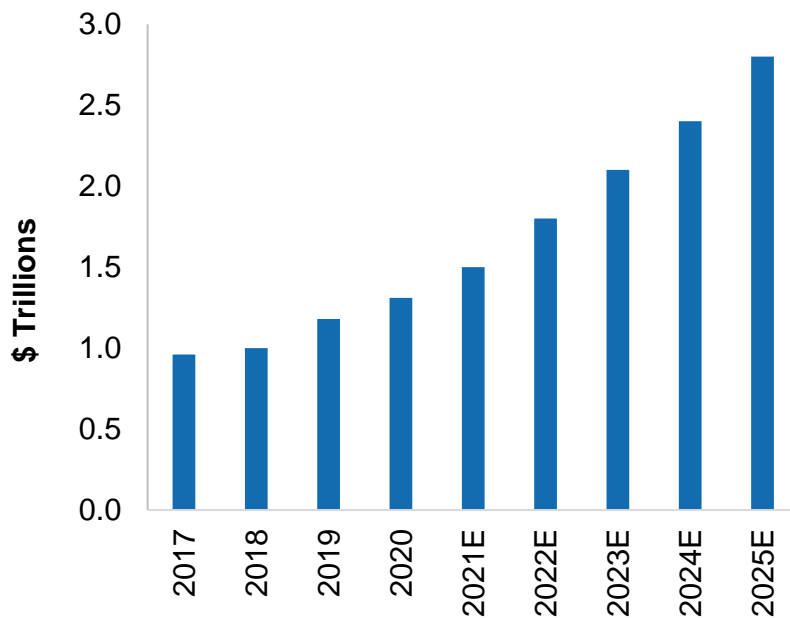
Industry	Large Non-U.S. Discount?
Communication Platform as a Service	✓
Business Process Automation	✓
Renewables	✓
Electric Vehicles	✓
E-Commerce	✓

# IV

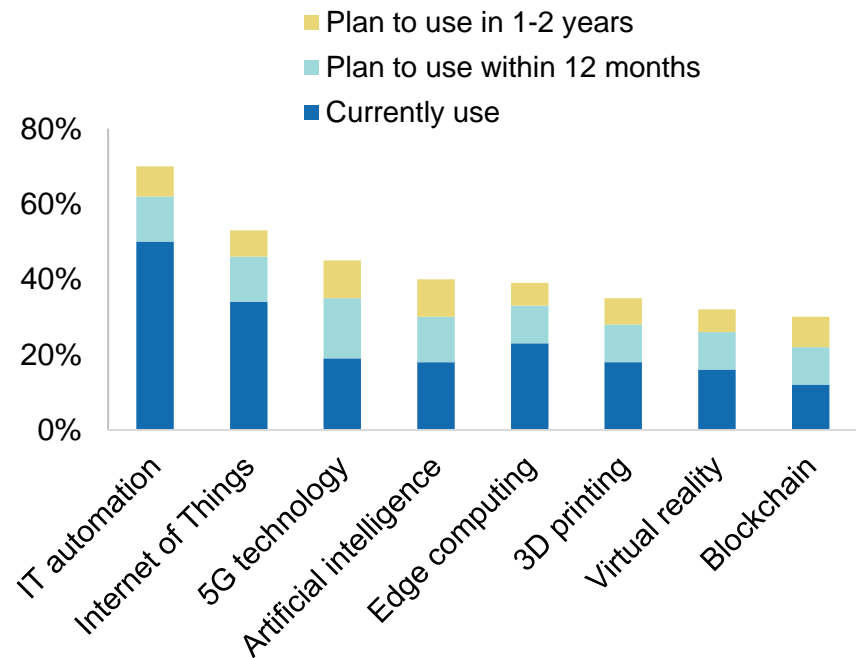
## Enduring Themes Convergence of Technologies

- Companies across the economy are going through a massive digital transformation
- The current environment has more innovation than ever, in our view

### Worldwide Digital Transformation Spending



### Organizational Adoption of Technologies

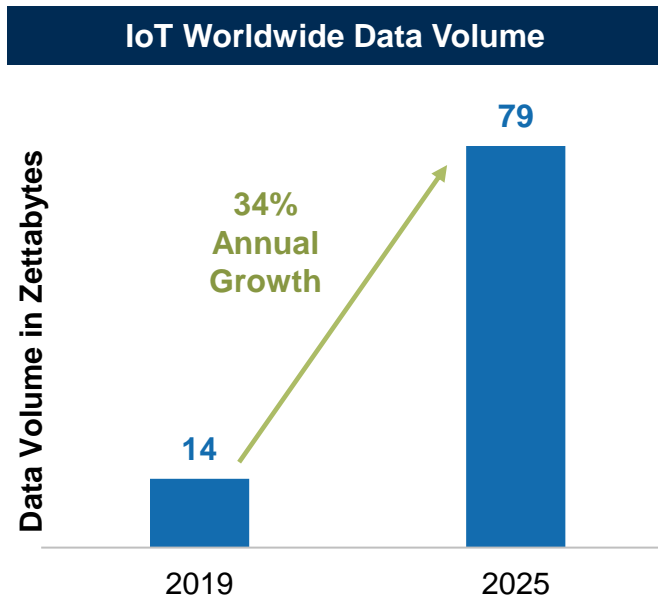


Source: IDC, November 2021 and Spiceworks, The 2022 State of IT, October 2021, survey of more than 1000 technology buyers in companies across North America and Europe.

# IV

## Enduring Themes Internet of Things

- The explosion in connected devices is creating the “Internet of Things” or IoT, transmitting valuable and actionable information
  - Drivers of IoT spending include security, data analytics, efficiencies, reliability, customer service, improved ROI, and compliance



**IoT Worldwide Revenue In 2030**

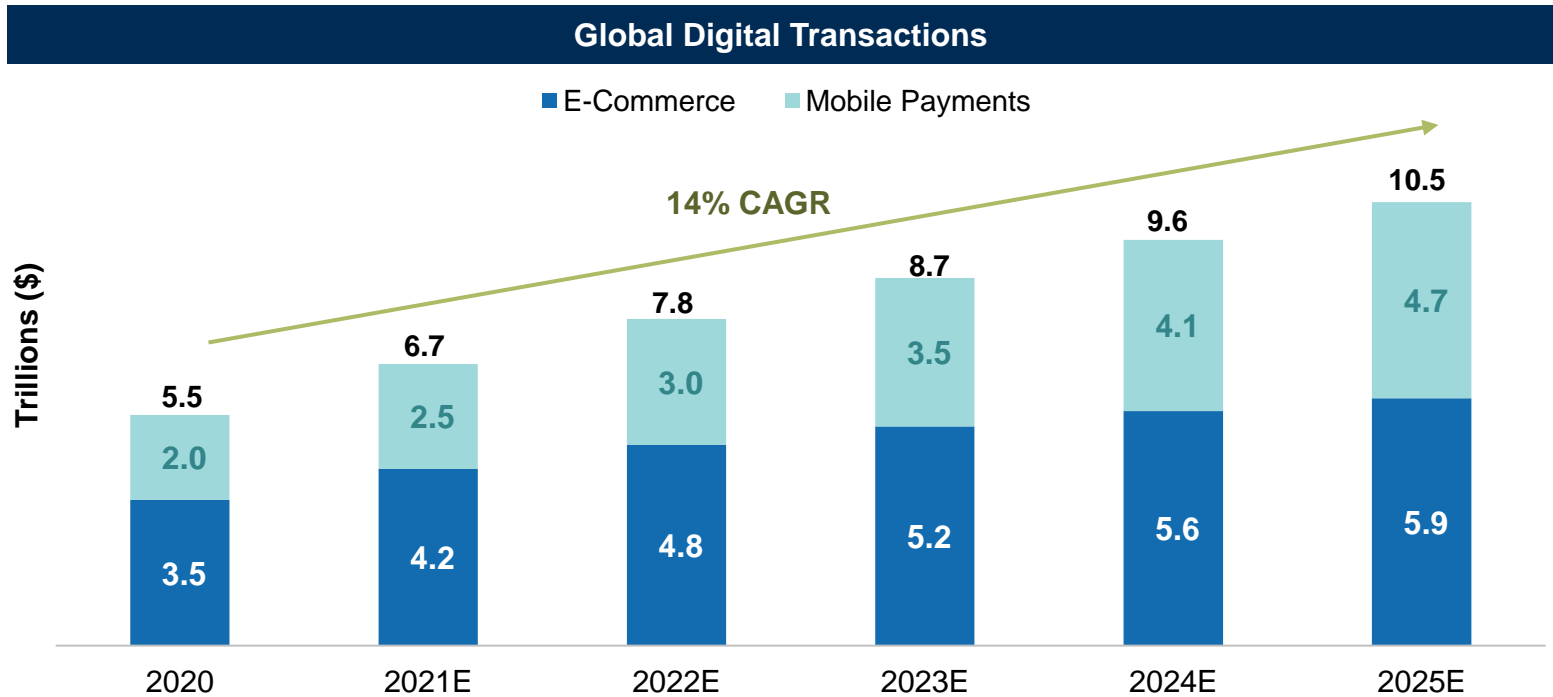
Use Case	\$B	Use Case	\$B
Consumer Media	203	Personal Monitoring	31
Connected Vehicles	198	Precision Robots	27
Closed Circuit TV	107	Lighting	26
Smart Grid	98	White Goods	26
Security & Fire	56	HVAC	24
Building Automation	54	Road Infrastructure	24
Payment Terminals	53	Inventory Management	21
Asset Tracking	38	Other	74

Source: Data volume of IoT devices from IDC, July 2020. 2030 estimated revenue from Transforma Insights, December 2020.

# IV

## 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.

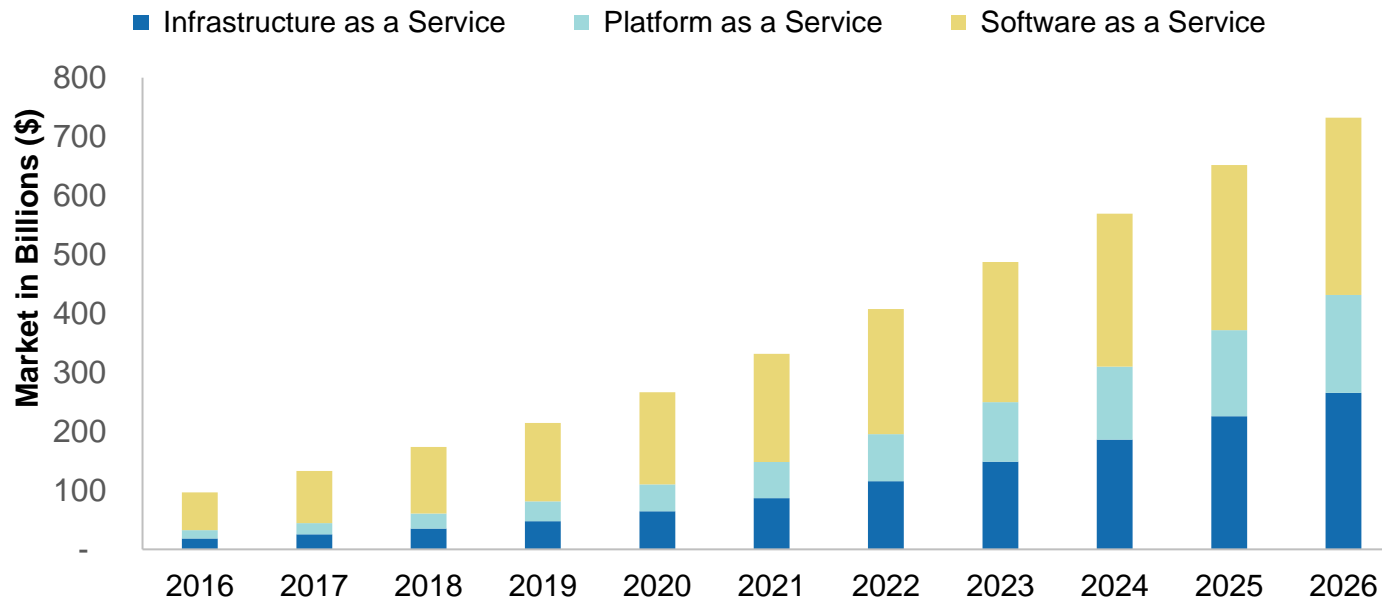


# IV

## 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

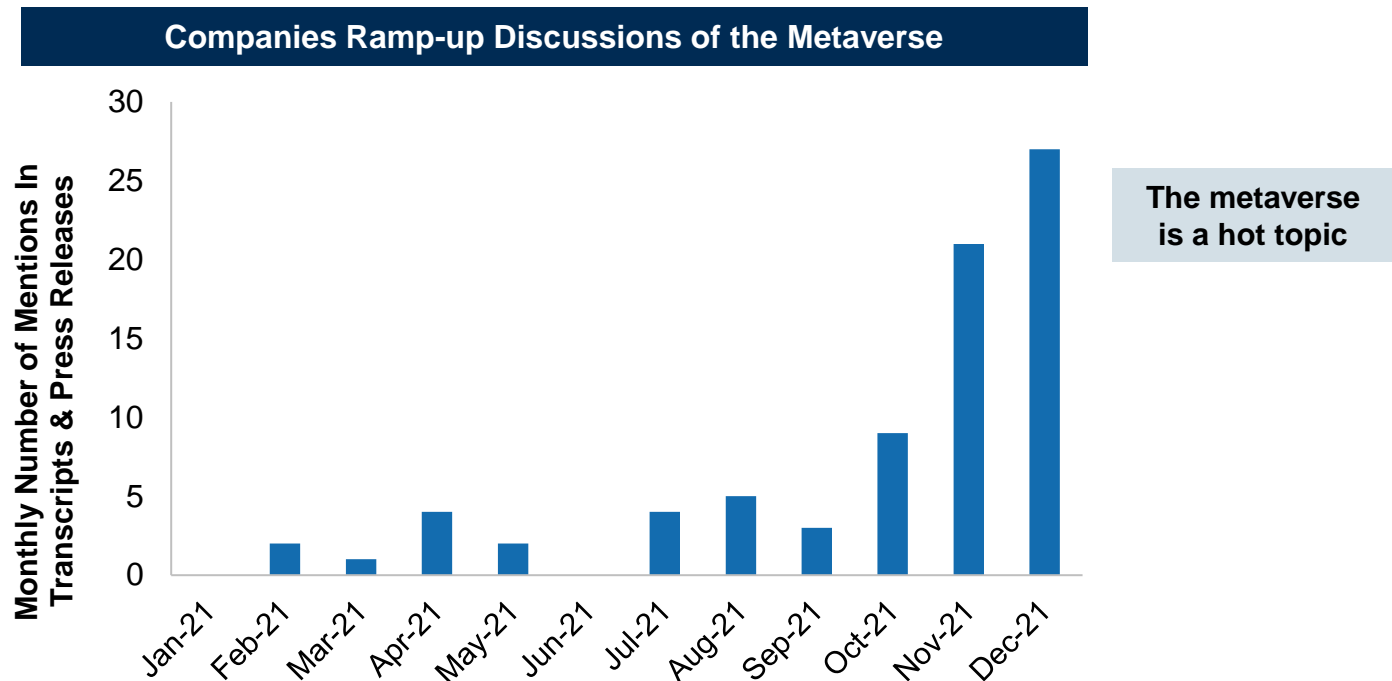


Source: Statista, October 2021. Data refers to worldwide public cloud revenue. Infrastructure as a Service (IaaS) makes it easy to scale up or down physical servers and data center infrastructure. Platform as a Service (PaaS) offers tools in a virtual environment that provide the possibility of developing and running applications. Software as a Service (SaaS) is a third cloud service model for licensing and delivering business applications that are typically accessed via a web browser.

# IV

## Enduring Themes Metaverse

- The metaverse may usher in a huge addressable market with a new digital world including an economy where people can earn, trade and shop for digital assets, as well as have social lives, and partake in education and entertainment
  - Sectors discussing the metaverse include not just tech (55% of mentions) but consumer companies (24%), telecommunications (8%), business services (5%) and even finance companies (5%)



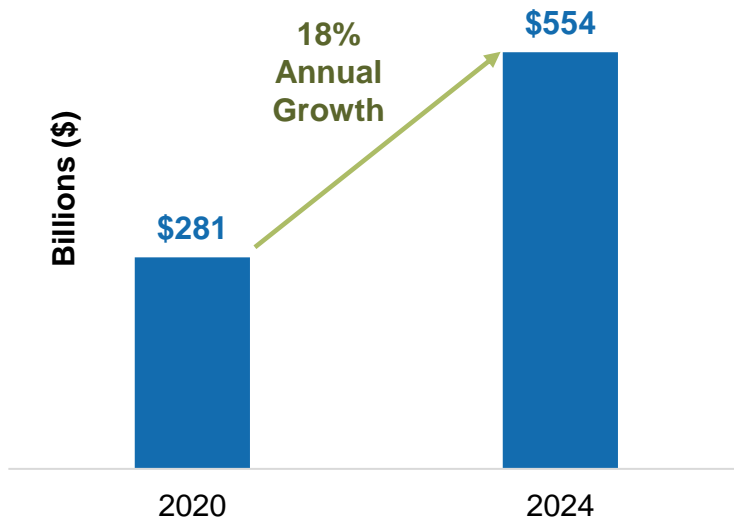
Source: FactSet, Alger. Universe is S&P 500.

# IV

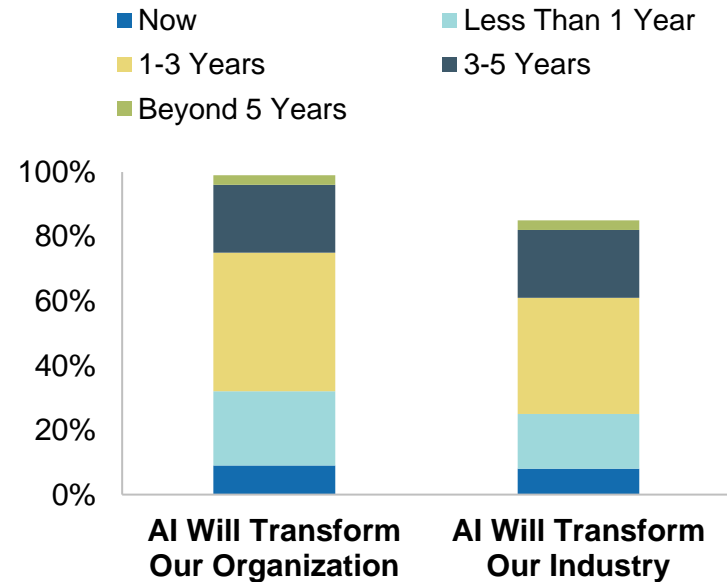
## Enduring Themes Artificial Intelligence

- Companies providing AI-based software services and hardware have a large opportunity
- AI will transform organizations and industries with higher investment likely leading to stronger market share

### Global AI Market



### AI May Be Transformational

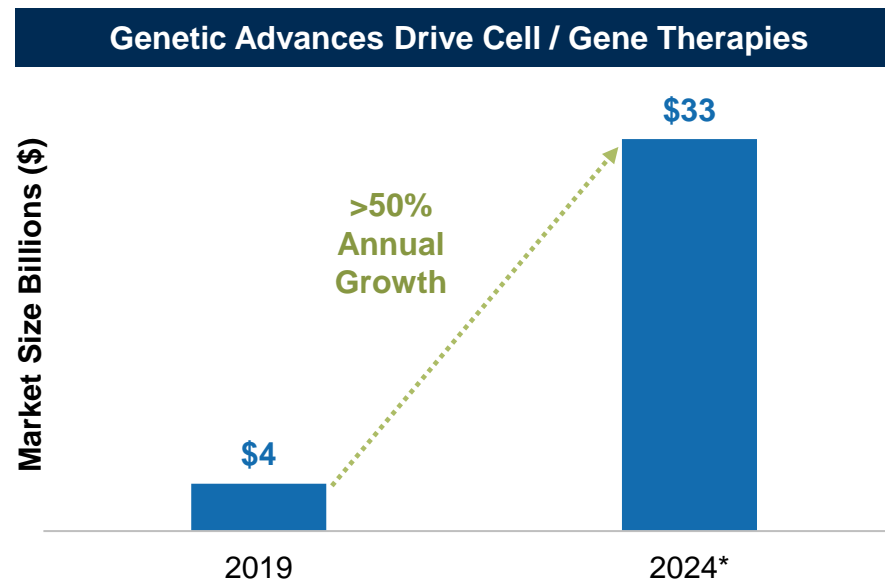


Source: AI market size estimate from IDC, February 2021. AI data on organization/industry transformation from Deloitte, July 2020 survey of 2,737 global business executives.

# IV

## 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)

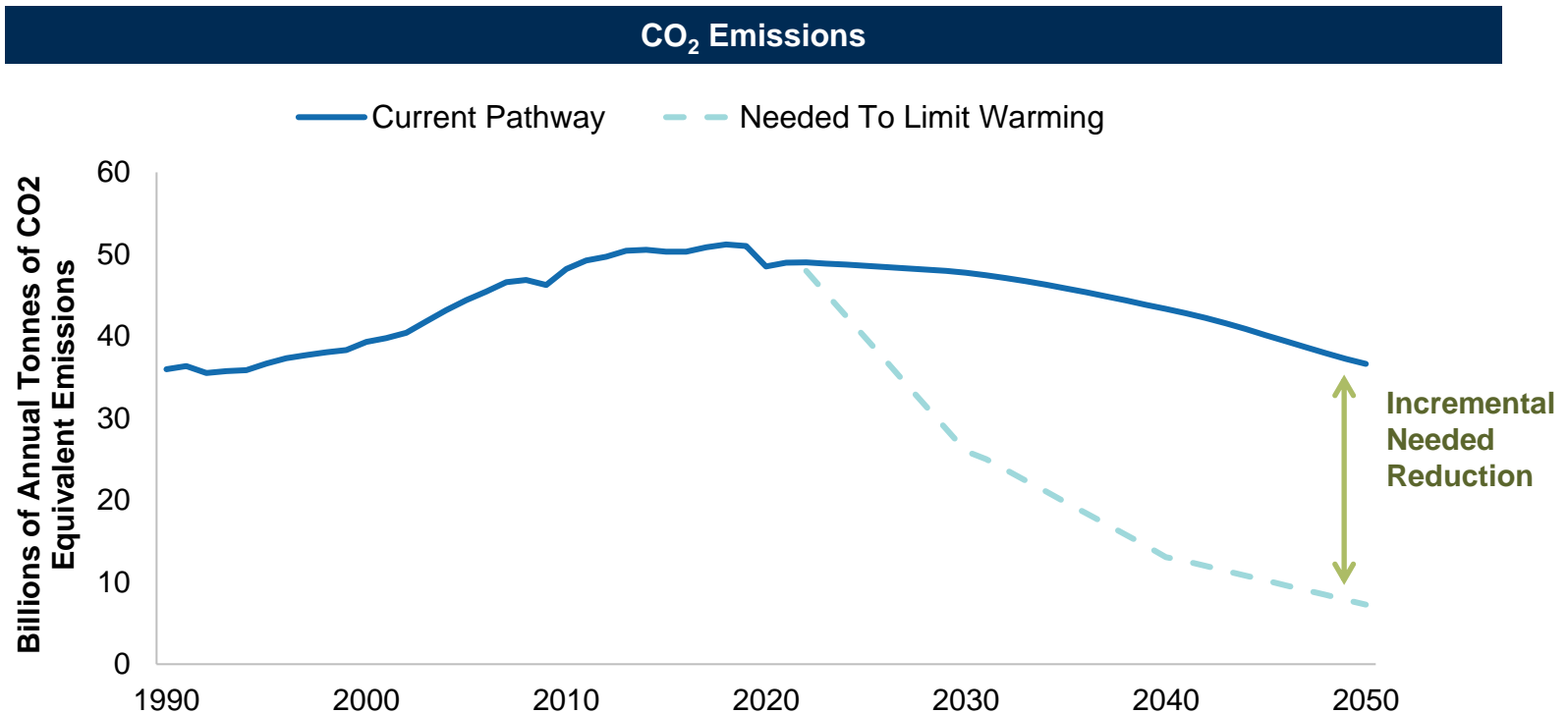


Source: Cell & gene therapy market data from Cryoport, 2020. \*Estimated.

# IV

## Enduring Themes Emission Reductions

- The rate of CO<sub>2</sub> emissions is not sustainable in our view and current emission targets need to be reduced further
- Reducing emissions may provide opportunities in alternative energy sources and in electric vehicles and related products and services



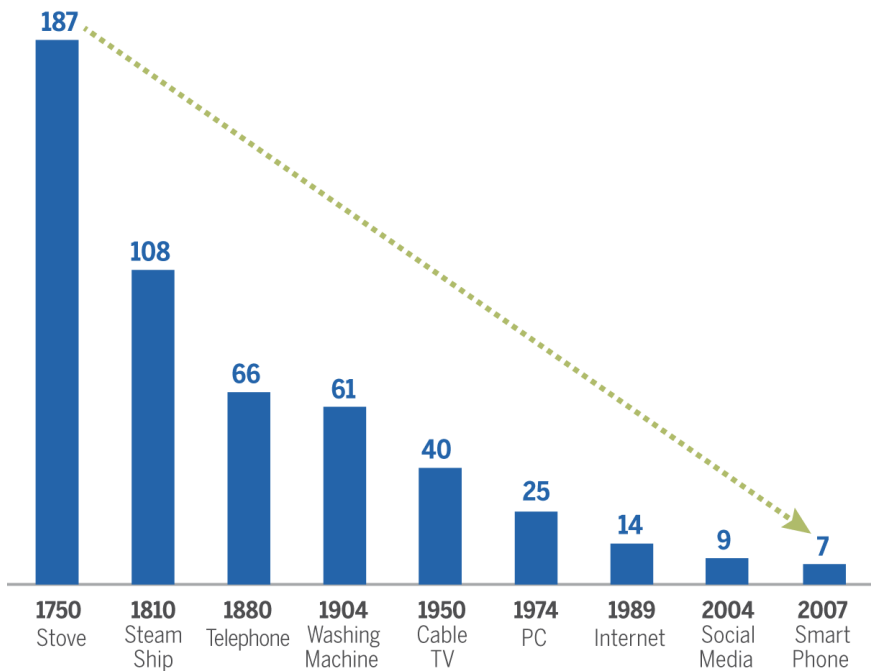
Source: Climate Action Project, May 2021/ Current pathway represents average of high and low “pledges and targets” scenario while needed to limit warming is based on median to achieve 1.5 degrees Celsius warming.

# V

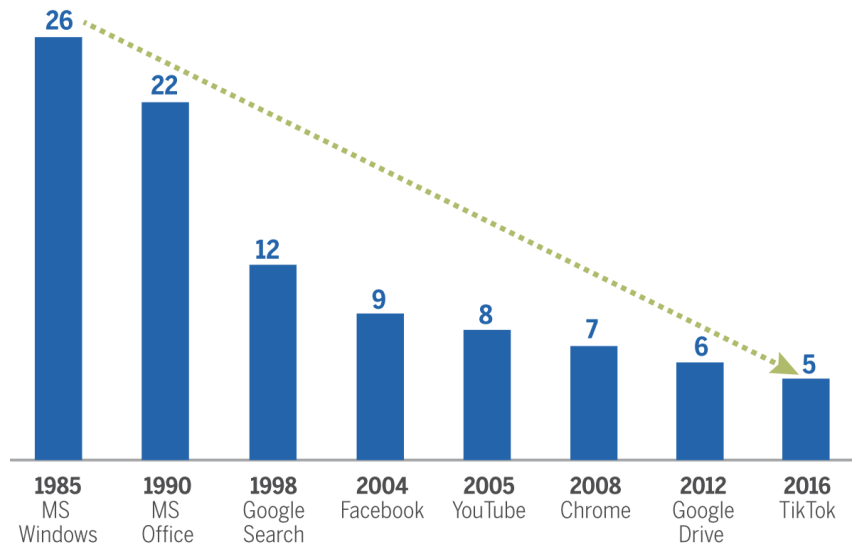
## Style Wars Accelerating Change

- 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

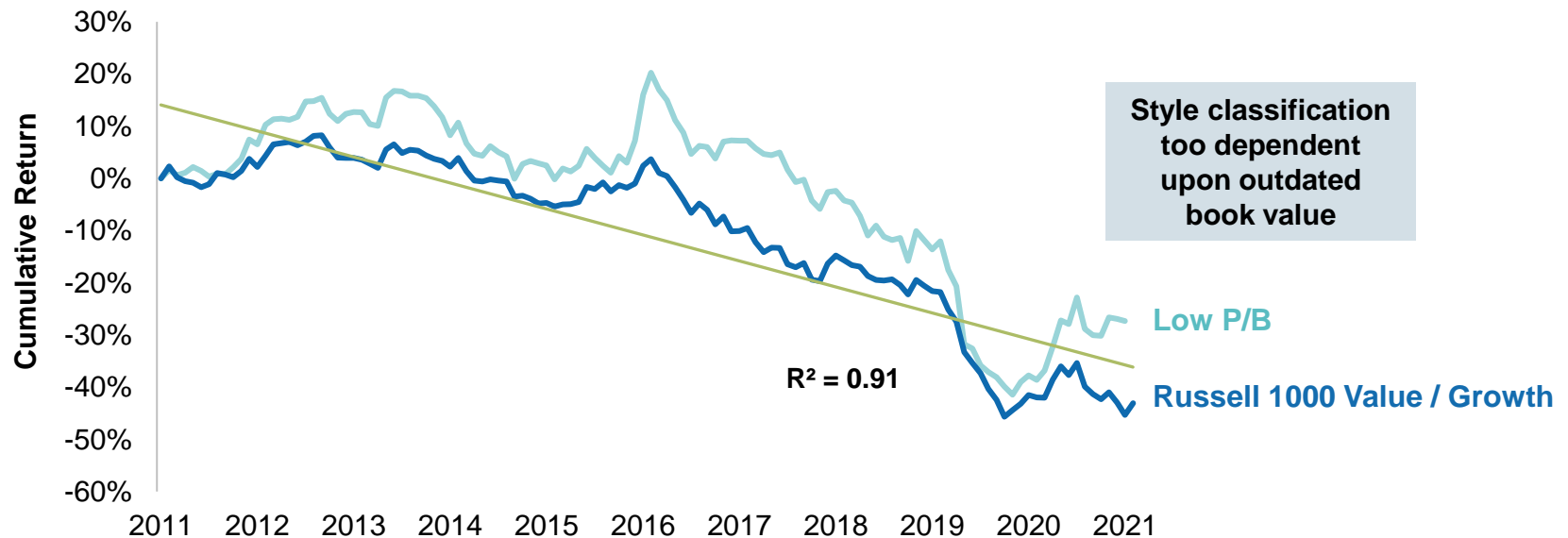


Source: Asymco, Visual Capitalist, company disclosures, Alger estimates.

# V

## Style Wars Structural Issues Driving Growth vs. Value

- Although many Value stocks rallied last 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)

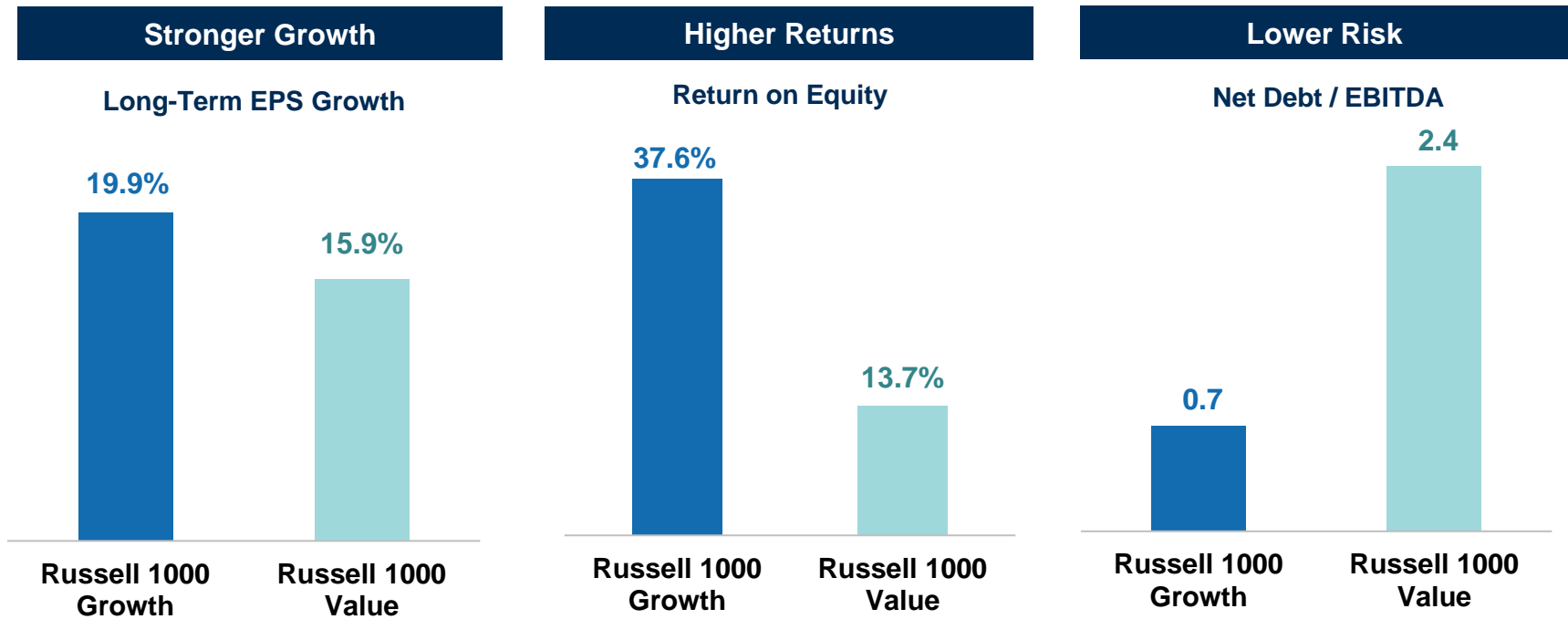


Source: FactSet, Kenneth R. French, and Alger as of December 2021. Low price-to-book returns are based on the B/P Fama/French factor for the CRSP universe which includes US firms listed on the NYSE, AMEX, or NASDAQ. **The performance data quoted represents past performance, which is not an indication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

# V

## 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



Source: FactSet as of January 2022. Growth represents consensus long-term analyst estimates and actual future EPS growth rates might be materially different than the forecasts shown.

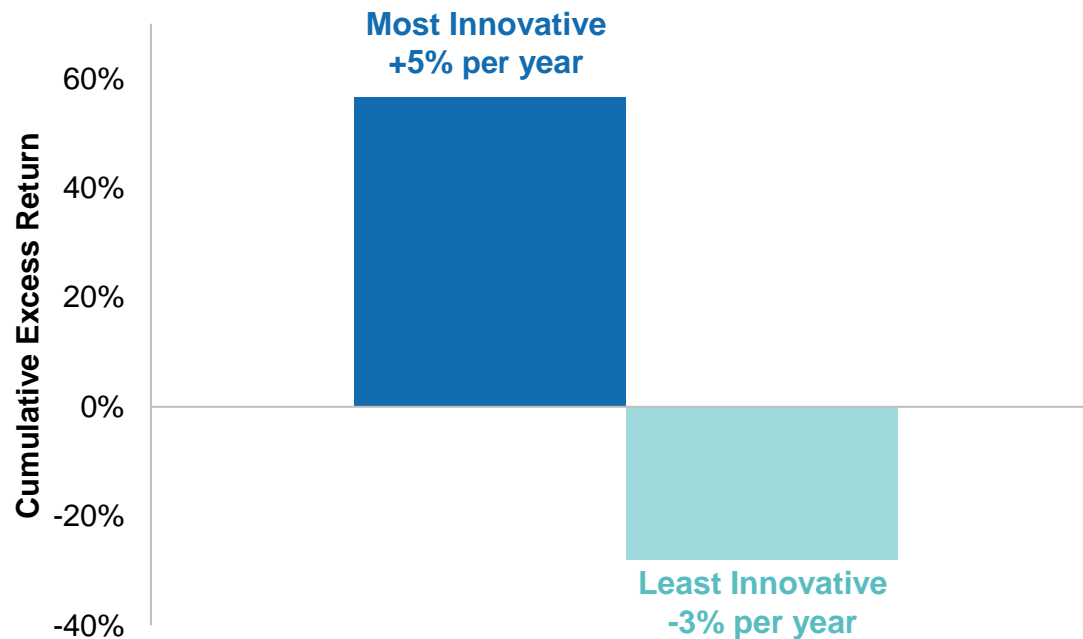


# V

## Style Wars A Powerful New Investing Factor?

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

### Innovative Companies Have Outperformed Over the Past Decade



Source: FactSet. Excess performance of the quintiles of R&D as a percentage of revenue with the most innovative being top quintile and the least innovative being bottom quintile of the stocks in the S&P 1500 index. Stocks were divided into quintiles based on R&D spending-to-revenue and calculated monthly for the 10-year period ended November 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.** Innovative companies may be defined as those companies with a high ratio of annual R&D investment to revenue. Investing in innovation is not without risk and there is no guarantee that investments in research and development will result in a company gaining market share or achieving enhanced revenue.

# Disclosure

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