

INVESTING IN THE NEXT INNOVATION SUPERCYCLES

IMPLICATIONS AND STRATEGIES FOR THE NEXT ECONOMY

INVESTMENT PERSPECTIVES I PGIM JENNISON

Summary

A widening divergence between winners and losers in a post-COVID world will have profound long-term implications for investors.

While the immediate economic shocks from COVID-19 have been dramatic, they likely will seem immaterial when compared to the deluge of tidal waves that have swelled up from the revolutionary innovations and permanent shifts adopted by businesses and consumers to cope with the crisis. Structural changes were well underway pre-crisis, but these secular trends in all likelihood will reshape global business forever because they actually accelerated during the pandemic. Need proof? Consider that the coronavirus compressed two years' worth of digital transformation into two months, according to multiple industry estimates.

Soaring adoption rates across multiple fronts—even in onceresistant areas—will likely continue post-pandemic simply because they are so convenient. The success of remote working will also foster a new paradigm, including businesses utilizing more diverse workforces across the globe, a migration out of large cities, and increased use of digital tools and applications. Other secular growth trends are developing much faster than expected because the technology associated with them has become essential not only to navigate this crisis but also as a critical, long-term source of resilience across many different industries.

As companies everywhere adapt to these new realities, the gap between winners and losers will widen. Most sophisticated technology companies were already operating on low-cost, efficient platforms pre-pandemic and will need to make less severe adjustments to their businesses, but many "old economy" business models reliant on antiquated technology will need to embark on costly endeavors to modernize their infrastructures and processes.

While companies across industries reimagine their global supply chains and consider assuming larger, more expensive inventories to deal with potential future disruptions, investors will need to weigh the impact of the future earnings growth potential for different businesses. After the crisis subsides, innovative companies that develop disruptive technologies to take advantage of structural shifts fueling next-generation supercycles of growth will likely emerge as future market leaders in the New Exceptional Technologies (NEXT) economy.

Despite these massive, long-term growth opportunities, our research shows that most investors are not optimally allocated to effectively capitalize on accelerating and expanding secular growth themes. Such investors may fare better over the long term by actively adding secular growth exposure to their portfolios.

Key Takeaways

Disruptive companies that were challenging traditional industries before the crisis likely will emerge as long-term growth leaders in the NEXT economy. Investors should weigh the implications of the following when constructing portfolios for the post-pandemic era:

Structural catalysts for innovation supercycles

- Investors need to reset future growth expectations based on the increased attractiveness for game-changing innovations as there is an overall scarcity of growth from the prolonged lower-for-longer climate
- 2 Evolution from disruptors to revolutionary drivers of future growth

 Multi-year secular shifts accelerated during the pandemic will transform

 disruptive companies into advanced drivers of growth in the NEXT economy
- Intensifying impact on portfolios in a winner-takes-all world

 A widening gap between winners and losers as companies adapt to new realities will benefit capital-light, tech-heavy business models with strong secular tailwinds
- The disconnect between growth potential and investment exposure

 Despite secular growth companies exhibiting greater strength and resilience, many passive and global equity categories are underallocated to these groups, forgoing critical sources of portfolio alpha
- Rethinking traditional allocations to include active secular growth exposure
 In a rapidly changing world where there is no passive substitute for
 deeply experienced managers able to consistently identify future market
 leaders, investors should consider including a dedicated secular growth
 component in their portfolios



Structural Catalysts for Innovation Supercycles

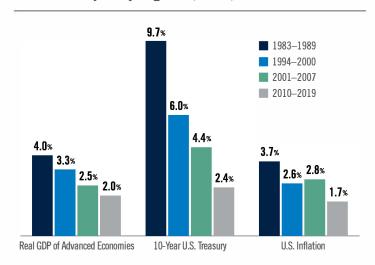
Secular growth and the innovation multiplier effect

These are interesting times to be an equity investor. The recent market volatility has some investors questioning whether growth stocks can maintain their decade-plus market leadership or whether they should reallocate portfolios based on old investing playbooks coming out of the current recession. Before making any hasty decisions, investors should consider the multiplier effects from the rising demand and growth from the many multi-faceted innovations and technology-driven disruptions at the forefront in navigating the current crisis. Combining this assessment with how drastically the world has changed since the Global Financial Crisis (GFC), there is an increased probability of continued favorable relative returns going forward for investors in the next innovation supercycles.

A structural case for lower for longer

The GFC was a pivotal game-changing period for equity investors that catalyzed a series of seismic structural shifts in the global economy and a new technology frontier that has driven durable outperformance of secular growth equities. These include, but are not limited to, lower interest rates from massive liquidity; challenged productivity growth from aging demographics; benign inflation from globalization, technology advancements; lower commodity prices; ballooning national debt levels; slowing consumption growth due to increased personal savings rates; and the declining impact of Chinese infrastructure investment—all of which have resulted in muted economic growth and inflation. This structural backdrop has benefited secular growth stocks at the expense of companies with highly cyclical and rate-sensitive business models.

Downward trajectory of growth, rates, and inflation



Source: International Monetary Fund, Federal Reserve Bank of St. Louis, FRED.

During the same period, two of the most influential innovations of our times—the modern-day smartphone and cloud computing—have since inspired transformations in communication, work, business processes, shopping, transacting, entertaining, monitoring health, and so on that have benefited economies, societies, businesses, and investors.

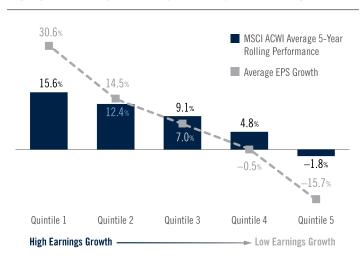
Growth equities have been prime beneficiaries of this lower-for-longer investment environment that has accelerated since the GFC, enjoying the present value benefit of low discount rates on longer-duration future earnings. Consensus expectations are pointing to one of the deepest recessions in history in the wake of pandemic-induced lockdowns and the looming aftermath. While pent-up demand may spark a ferocious initial recovery from historically depressed levels, the structural challenges outlined above will continue to pressure future long-term economic growth potential. Additionally, continued unparalleled support from fiscal and monetary policymakers point to several years of low interest rates ahead.

This low-growth, low-rate environment translates into an increasingly challenging backdrop for investors seeking growth in their portfolios to meet long-term investment objectives. Fortunately, this environment typically favors secular growth companies benefiting from structural changes within their industries that don't require a backdrop of strong economic activity, inflation, or elevated interest rates to fuel their growth. These businesses have the added benefit of continued access to cheap financing (should they need it) to expand and improve their businesses and productivity through capital expenditures to enhance technology with cloud and software applications. This should help perpetuate the ability for innovative stocks to magnify their growth versus "old economy" companies with weaker, often deteriorating end markets.

Recalibration of fundamental expectations

Fundamentally, growth has become more scarce. The number of S&P 500 companies delivering over 15% revenue growth has fallen from a pre-GFC peak of 163 (or 33% of the index) to a mere 49 (or less than 10% of the index) by April 2020.¹ Over the last decade, a lower GDP base combined with a scarcity of companies with strong earnings growth has led to a wider divergence in returns with high-growth companies outperforming the MSCI All Country World Index (ACWI) average by more than 680 basis points on an annualized basis (as of 12/31/19).¹ Even more stark is the 1,740 basis points divergence in returns between the top and bottom earnings

High-growth companies outperform by a wide margin



Source: FactSet and MSCI. Data from 2010–2019 based on the historical 5-year earnings growth quintiles. Past performance does not guarantee future results.

growth quintiles. Still more staggering is the 23.6% earnings growth gap between the highest and median quintiles.

While investors typically look to valuation multiples for future return expectations, the significant uncertainty regarding the dynamics of this economic recovery makes this analysis more difficult. In today's unprecedented scenario, many companies have pulled 2020 guidance as the shape of the economic recovery remains unclear and the post-pandemic implications on their businesses still uncertain. Against this backdrop, the cyclical nature of many equity sectors that rely on economic activity to thrive pose some of the greatest risks for future growth potential. Investors may find that innovative, assetlight companies with disruptive business models can better fundamentally withstand economic downturns while remaining well-positioned to resume (and even accelerate) upward growth trajectories once the conditions normalize. Combined with their higher-quality, more durable business models, investors should not be surprised by a protracted widening of relative current valuations between secular growth and cyclical stocks.



Evolution from Disruptors to Revolutionary Drivers of Future Growth

Adjusting the pandemic mirrors for better visibility

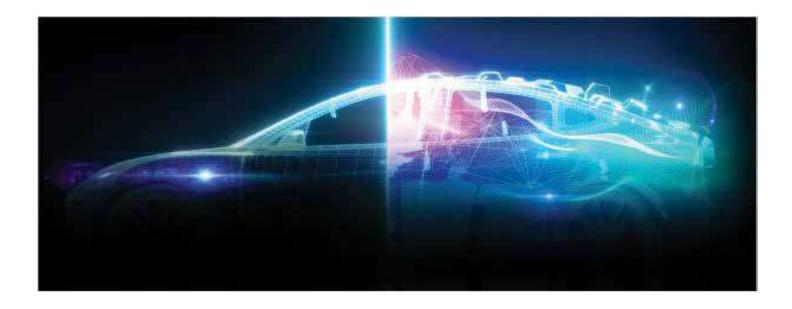
While human casualties from the pandemic have been devastating, the impact from economic, consumer, societal, and business standpoints have been traumatic. Continued uncertainty about when the economy will fully recover and what the lasting implications will be has investors rightfully on edge. But viewing the pandemic from a different lens shows how it has accelerated structural long-term trends that have been underway for quite some time.

We find it helpful to look at these trends and their future implications through three prisms:



Through these dimensions, we see that businesses and consumers were changing their behaviors and actively seeking out products and services that are more productive, cheaper, faster, and more convenient long before the coronavirus appeared. We also see that many of these trends accelerated during the crisis. And post-crisis, we think the lasting impact of these changes will be to hasten the collapse of already-struggling industries and enhance the growth of companies with more innovative business models.

Technological innovations are no longer limited to the technology sector, but have become entrenched into the core of businesses across all sectors and industries.



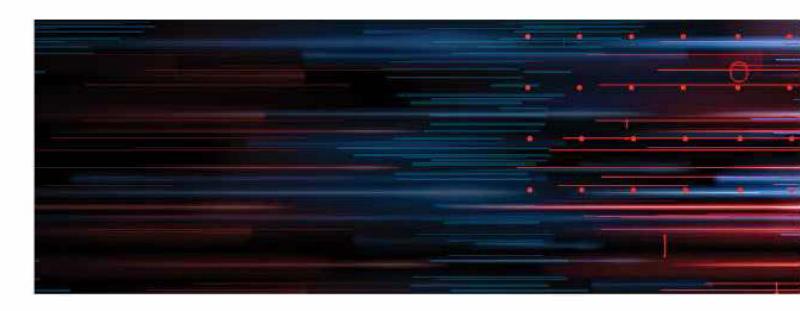
PRE-PANDEMIC: BUILDING SECULAR RACE CARS

Before the pandemic, many secular trends were laying the foundation for long-duration future growth. Think of these trends as tools to build concept race cars for future roads. An accelerated pace and breadth of innovation has long been unleashing disruption across nearly every sector, industry, and region.

Growth in this NEXT economy has been driven by a new generation of trailblazing companies that are challenging tradition-bound industries that are unwilling or unable to adapt. For years, these mavericks have been displacing incumbents, reshaping the global landscape and transforming our daily lives, all while offering attractive investment growth potential.

Digital transformation is a prime example of a secular theme in motion prior to the coronavirus outbreak. Alongside it, the pervasiveness of close to 5 billion mobile users (or roughly two-thirds of the world's population) has led to rapidly expanding economies of scale for dominant, innovative companies in e-commerce, digital advertising, payments, streaming, and cloud computing, to name a few fast growth markets.² As users spend increasingly more time on digital media (over 6.5 hours per day on average for adults in the U.S., higher in emerging markets like China), the growth opportunities for these areas have risen exponentially.²

Disruptive innovations are driving evolution in how society lives, works, and operates—all while offering attractive investment potential.



MID-PANDEMIC: REVVING THE GROWTH ENGINES

Proof of concept is critical once prototypes are created to ensure viability of design, functionality, and usability. This phase takes a lot of testing and refinements to ensure new technologies prove effective through even the most dire stress tests. Similarly, pre-pandemic secular trends were severely tested during recent lockdowns. It's often said that necessity is the mother of invention. And seismic disruptions caused by crises have a peculiar way of bringing necessities

to the fore, spurring innovation across a multitude of areas to navigate the calamity that quickly becomes the new norm. Many exemplary businesses with inspiring and agile ideas were born around periods of turmoil. Their products and services met the needs of society in cheaper, faster, or more convenient ways, paving the way for exponential growth for years to come. Investors with foresight to identify these long-term implications have reaped the benefits of

Disruptive companies born during disruptive periods

Bear Markets				1998 Google Tencent	1999 Salesforce Alibaba Dexcom RingCentral	2004 Facebook Shopify	2011 Zoor
1966 MasterCard	1975 Microsoft Apple	1982 Adobe	1987 LVMH	1994 1997 Amazon Netflix	2003 Tesla	2006 Adyen	2009 Uber Venmo Square
				1991 World Wide Web	Comp	2006 Cloud outing 2007 Modern artphone	2008 Electric Cars

Source: Company data.



investing early in these types of companies and capitalizing on their future growth potential.

The COVID-19 disruption has given investors a heightened appreciation of transformative businesses. The spike in online activity since lockdowns began has been staggering and illustrates the ubiquity of the internet—especially mobile internet as smartphones are the preferred device—in our daily

lives. Social distancing measures have led to faster adoption of many technologies and platforms that enable and enhance e-commerce, cloud computing, streaming, online learning, and telemedicine. Think of this acceleration of tech adoption as revving the race cars' engines. Tech titans haven't been the sole beneficiaries of this accelerated adoption. Many inventive younger, smaller companies have also seen their businesses significantly expand.

The power of innovating through a defining moment

Early in its history, Alibaba, the Chinese e-commerce giant, was challenged by the SARS outbreak that spread through China in 2003. Much like today, quarantine measures were taken that devastated the economy, closed businesses, and left workers isolated at home. However, the internet wasn't as ubiquitous then. Alibaba managed to turn this into a defining moment for the company, powering through the adversity by not only maintaining

its business activities, but also launching an innovative, consumer-based online shopping platform that helped both businesses and consumers buy and sell goods online out of necessity. It has since introduced novelties, like Super Apps, that make customers' lives more convenient and keep them loyal to their brand. Today, China is the largest e-commerce market in the world and Alibaba is the world's largest online retail empire.



POST-PANDEMIC: FULL SPEED AHEAD

Innovations that make our daily lives more efficient and convenient, or help us work together more productively, have the potential to create profound shifts in how we operate as a society. While it may take time for some of these themes to fully unfold due to the widespread near-term uncertainties, tectonic shifts in the global landscape are afoot. Historically, it has taken decades for even the most influential technologies to reach mass adoption. In recent years, we've seen this timeline shorten with consumers more quickly embracing new technologies.

For instance, it took mobile handsets 16 years to reach 50% market penetration, but smartphones made the same journey in only nine years. While smartphones dramatically altered the way we communicate, shop, and view content, the market matured quickly for these devices, peaking in 2016.³ While this is a structural challenge for smartphone makers, the smartphone remains crucial to new technologies as mobile internet usage continues to grow and individuals continue to spend more time consuming digital media.

Despite the near-term uncertainties, the faster rate of adoption we're witnessing today for certain innovations has exceeded many pre-crisis forecasts. Post-crisis, we expect an inflection in the trajectory for technology adoption that will expand total addressable markets for many secular trends beyond pre-COVID expectations. It's far too soon to know just how big some of these themes can get once the economy fully recovers. We believe the secular themes highlighted in the following pages that were disruptive before the pandemic and essential during it will become revolutionary drivers in the post-pandemic era.

While areas like e-commerce, digital payments, streaming, and cloud computing will continue to gain momentum more quickly, longer-term social distancing could lead to a new frontier of disruptive innovations in robotics and automation, virtual education, and telemedicine—all areas where investors are liable to find the next generation of breakout growth stocks.

Secular accelerators in the NEXT economy

- 1 On-Demand Consumption
- 2 | Global Consumer
- 3 | Digital Payments
- 4 | Enterprise Technologies
- 5 Robotics & Autonomy
- 6 | Health Tech & Therapies

SECULAR TRENDS GOING INTO OVERDRIVE



1. On-Demand Consumption

Increased mobile internet usage and a shift to on-demand customized consumption models are leading to new delivery formats and business models for just about anything, including shopping, watching, listening, learning, and reading. All of these online activities have intensified in recent months with so many consumers confined to their homes. Amazon hired 175,000 employees in March and April of 2020 to help keep up with soaring e-commerce orders.⁴

Online gaming and virtual reality app downloads also skyrocketed during the lockdown, with cloud-based gaming providing more opportunities for gamers to access more content than possible with traditional gaming consoles. Meanwhile, video streaming upended the cable networks in terms of subscribers, with Netflix adding nearly 16 million new subscribers in the first quarter. Unlike competitors with other revenue streams such as digital advertising (which has taken a big hit recently), Netflix's sole focus on streaming has enabled it to use revenues to produce more original content—and given that content is king, good content creates brand loyalty.



2. Global Consumer

E-commerce has been growing immensely in size and breadth but remains largely unpenetrated, representing only 14% of global retail sales in 2019.³ 2020 lockdowns led to an inflection in this growth, attracting once-resistant consumers and demand in categories previously dominated by brick-and-mortar models, like groceries. In the U.S., one of the world's largest retail markets, e-commerce penetration spiked 5% in two months—a trek that took the industry six years to reach pre-pandemic. And these numbers don't reflect the surging demand in BOPIS (buy online pick up in store).

Traditional retailers with shuttered doors lacking an omni-channel strategy have been forced to turn to e-commerce for survival. But transitioning standard practices into the digital sphere isn't easy for smaller companies with limited capital and knowledge of how these operations work. Shopify, a cloud-based platform with

Dramatic acceleration of e-commerce penetration in the U.S.



Source: U.S. Census Bureau. Adjusted non-store retail as a percent of total retail sales.

easy-to-use infrastructure tools that provides an omni-channel e-commerce capability, has been the answer for many small and medium-sized businesses (as well as some larger ones which haven't previously used e-commerce). The platform has enabled retailers to set up websites, gain access to distribution platforms including Amazon, and benefit from turnkey solutions that can help merchants provide new products and services and capabilities to gain new revenue streams. Already having paid for the adoption, retailers are likely to permanently continue using e-commerce as a vital distribution strategy to boost sales.

Distribution control is another crucial element for retailers to consider in this environment and beyond. Companies that have digitally transformed their enterprises, have direct-to-consumer e-commerce strategies, and are vertically integrated have seen broader success. MercadoLibre, the leading e-commerce platform in Latin America, is a prime example of this trend. With over 267 million users, the company operates interconnected businesses that also include the region's largest online payment network, a credit line, and a real estate listing business.⁴ It saw amazing triple-digit sales growth in key markets like Argentina and Mexico since the crisis began, showcasing a huge road map to growth given the region's low penetration rates.

The burgeoning middle class in emerging markets, especially Asia, is more willing (and actually prefers) to transact online and has a hearty appetite for premium products. Take Kering (parent of luxury brands like Gucci) as an example, which despite a 15% drop in sales in the first quarter of 2020, saw online sales in mainland China up triple digits.⁴



3. Digital Payments

Digital payments are rising alongside on-demand consumption, a shift offering tremendous investment opportunities. Ease of adoption, convenience, and high security are key drivers of this trend. In 2019, digital payments made up 42% of global online transactions with the highest share of online wallets coming from the Asia Pacific region (58%). In China, which likely will become the world's first cashless society, mobile payment transaction value dwarfed the U.S. by a factor of 10, and is expected to account for 50% of global mobile payment volume by 2024.²

Payment platforms designed with the digital world in mind will be beneficiaries. Adyen, a leading Netherlands-based payment processor with a 240 billion euro volume in 2019, is a great example.⁴ Its cloud-based infrastructure provides benefits to both merchants and consumers and allows it to roll out updates and new services to customers instantly. Its client list includes over 3,500 firms, including heavyweights like Netflix, Microsoft, and Facebook. With e-commerce and on-demand consumption rising and social distancing becoming the norm, contactless payments and digital wallets become more appealing consumer choices that will propel the transition towards digital payments platforms.



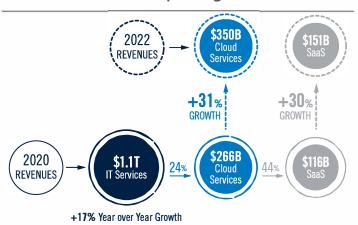
4. Enterprise Technologies

The digital transformation of the enterprise is designed to improve agility, productivity, and in the case of COVID-19, business continuity. Businesses want their technology infrastructure to be nimble, secure, and state of the art. The move to cloud-based applications will help enable this. As millions of employees embarked on a work-fromhome experiment, the immediate needs were unified communications between workers, suppliers and customers, secured end-point devices such as smartphones, laptops, and tablets, and central technology infrastructure monitoring and management of disparate devices and data sources.

As a result, a multi-year transition to cloud-based computing literally occurred in weeks.

Cloud computing is commanding an increasing share of the COVID-adjusted \$3.5 trillion information technology (IT) budgets as companies in nearly all industries take advantage of the lower cost, higher speed, stronger security, and ability to deliver uniform IT resources at multiple locations.⁵

Cloud-based services to comprise large share of IT revenues



Source: Statista.

Collaboration tools (enablers of messaging, videoconferencing, call centers, etc.) like Microsoft Teams saw daily active users skyrocket 275% from November 2019 to April 2020, while Cisco Webex reported 14 billion meeting minutes in March 2020, a 2.3x increase since January 2020.5 Other beneficiaries include cloud infrastructure kings Amazon and Microsoft, where the latter saw an eight-fold increase in demand for its U.S. cloud services in regions under lockdown orders. Meanwhile the Software-as-a-Service (SaaS) space has many emerging leaders offering innovative, agile solutions. Consider RingCentral, which is a provider of cloud-based communications software that allows for business communications across multiple devices, locations, and modes. The company, which currently has only 1% of the global market share, is benefiting from the rapid acceleration to unified communications in the decentralized work environment. With a price tag 25% lower than traditional corporate phone systems, not including the hardware of antiquated systems, it's hard to see why enterprises wouldn't continue using these services going forward. Another good

example is CrowdStrike, which provides endpoint security, threat intelligence, and cyberattack response services. With more devices being used to access work information, the company's malware detection on mobile devices is incredibly necessary for information security.

The speed of adoption of these services and applications and the minimal disruption seen by many businesses was eye-opening. While just a few months ago many businesses were skeptical that a remote working environment could be effective, today a growing list of prominent employers have reported that they plan to allow many employees to work remotely on a permanent basis.



5. Robotics and Autonomy

While electric cars seemed like a remote possibility just a decade ago, they are now competing fiercely with internal combustion-engine vehicles. Meanwhile, ride-on-demand and ride-sharing companies like Uber and Lyft are threatening the viability of taxi cabs. While the coronavirus has temporarily pushed these themes out of mind for many, it has brought some long overdue changes to the fogyish automobile industry. For example, the Tesla-introduced online purchase model was forced to be adopted by traditional automakers with closed showrooms. The luxury auto market even added contactless at-home car maintenance to their service lists.

Additionally, a new generation of robotics that combines deep intelligence with virtual reality tools is fueling advancements in autonomous driving technologies. Ride-on-demand and autonomous driving are taking mobility to another level, creating a new ecosystem that may one day eliminate the need for people to own or operate their own cars.

Similarly, robotics and automated tools have long been integrated into factory and warehouse production systems as a way to reduce rising labor costs. The forced shutdown of business and loss of employees severely hurt many manual business operations as global supply chains were disrupted. Coming out of the crisis, companies will reconsider the supply chains and potentially bring outsourced manufacturing back to home markets. But this will be costly, so they will also need

to factor in how to increase productivity through robotic and automated means, providing long-term growth opportunities for these themes.



6. Health Tech and Therapies

Advances in scientific knowledge and technology platforms are fueling an unprecedented flow of innovative biopharmaceuticals and diagnostic tools that address serious unmet medical needs. Robotic surgeries, liquid biopsies, continuous glucose monitoring, immunotherapies, and customized genetic therapies are just a few ways in which the health care sector is evolving. Aging demographics and prevalence of diseases around the world will continue to require novel approaches to health tech and therapies. The medical community has embraced new genetic analysis for diagnostic testing, mutation monitoring, recovered cell composition, and potential customized genetic treatments and vaccines. The insights gained from this breadth of research can likely be broadened to a host of other diseases, with potential to change the face of future treatments for some of the world's deadliest diseases.

Expanding applications for new technologies in areas not originally anticipated is growing the total size of market opportunities for many secular themes.



Intensifying Impact on Portfolios in a Winner-Takes-All World

Future growth implications from innovations driving evolution

Post-pandemic, the lasting impact on many shifts in consumer behavior could accelerate the collapse of alreadystruggling industries while fostering growth in companies with more innovative business models. The epoch of this new disruption at a massive scale will affect some sectors more profoundly than others, widening the gap between the winners and losers. Darwinian forces between the disruptors and the disrupted could spark a new wave of industry consolidation that makes more powerful, resourceful companies gain even more industry clout at the peril of struggling business models. Based on this dynamic, we found it important to consider whether traditional asset allocation models with passive or average category exposures have enough exposure to the likely winning categories. To analyze this, we used the Global Industry Classification Standards (GICS) set by MSCI to categorize the universe of 69 GICS industries into three major categories: secular growth, defensive, and cyclical categories (see Appendix for breakdown of industry categorization). What we found was secular growth companies have stronger long-term earnings and growth potential, better-quality financial metrics, larger capitalizations that enable greater scalability and network effects, and better returns. Despite these benefits, it seems most investors are underallocated to this cohort and have higher exposure to cyclical and defensive companies, which fall in the losing or runner-up camps based on our analysis.

In a disruptor versus disrupted world, the choice between "NEXT economy" secular growth and "old economy" cyclical stocks has never been more paramount for investors.

Growth spectrum by category and characteristics

LOW GROWTH POTENTIAL



- Struggling/structurally damaged businesses
- · Capital-intensive business models needing revamping
- Fragile revenues from weak demand and growth

Cyclical companies depend on the business cycle and strength of the economy in order to grow. They are sensitive to changes in macro conditions like economic growth, inflation, and interest rates and will be challenged by a prolonged lower-for-longer environment. Many of these old economy companies and industries are being disrupted and continue to see their market share erode while the size of their end markets shrink. They are structurally damaged and require massive capital spending and time to significantly revamp business models to compete effectively in the modern world. Some businesses may never come back, while others will need massive overhauls to their business models to compete effectively in a post-pandemic era. This would likely impair earnings visibility and result in big hits to their bottom lines for quite some time.



- Essential/basic products/services
- Need some structural changes
- Steady demand and growth

Defensive companies consist of basic or essential products and services that people need regardless of economic conditions and thus have steady demand. Companies in this category—often deemed bond proxies—typically provide high, relatively stable dividend payouts. Pharmaceuticals, household products, and utilities are good examples. While these types of companies have rallied during the current pandemic due to individual stockpiling of certain goods, typically people don't overbuy these items, and so they don't offer strong long-term growth potential. Post-pandemic, these companies will need to rejigger business models with enhancements to supply chains and distribution methods, but in general they'll likely continue to chug along.



- Innovative products & solutions
- · Asset-light, tech-heavy business models
- Strong demand and long-term growth

Companies offering disruptive innovative products and services benefit from strong short- and long-term tailwinds and high demand. These types of companies are commonly found in the technology, entertainment, interactive media, and biotechnology industries. The current disruption is giving investors a heightened appreciation of transformative businesses. We believe many of the winners of the last few years offer differentiated and disruptive business models that are even more compelling in the current environment. The increased adoption of these products and services recently is likely to accelerate going forward, leading the way to a new global paradigm.

HIGH GROWTH POTENTIAL

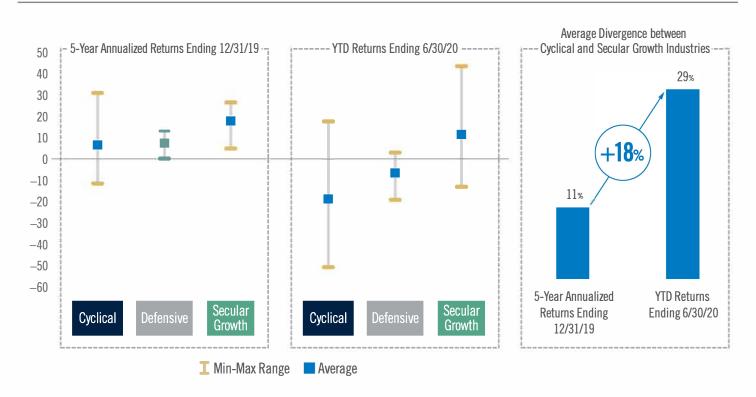
1. A WIDENING RETURN GAP EXISTS BETWEEN SECULAR AND CYCLICAL INDUSTRIES

As we've transitioned from an industrial economy to an innovation economy, it's no wonder why innovation has been winning over the last decade. In just the last five years, we've seen acceleration of disruptive secular trends transforming our daily lives as companies globally adopt their own digital journeys to compete in the NEXT economy. The unprecedented circumstances of this year have increased demand for imaginative solutions to help society navigate the current crisis. Innovative secular growth companies have been delivering solutions to help individuals manage daily life and work, leading to massive digital leaps by companies and increased adoption of their products and services. The result is a widening gap between winners and losers with secular growth industries outperforming other categories through the market turmoil. Compared to the 11% average annualized return spread over the last five years (ending 2019) between secular growth and cyclical categories, the year-to-date dispersion between the two categories has widened 1,800 basis points to 29%.

Key Secular Growth Characteristics

- Unique long-duration growth business models
- Expanding addressable markets
- Market-dominating competitive positions
- Large-scale network effects
- Persistently strong revenue and earnings growth
- Quality financial metrics

Widening divergence between top and bottom performers



 $Source: FactSet \ as \ of \ 6/30/20. \ Past \ performance \ does \ not \ guarantee \ future \ results.$

2. STRONGER PERSISTENCE AND FINANCIAL QUALITY FROM SECULAR GROWERS

Dissecting sales growth by each category shows that secular growth companies have delivered significantly stronger revenue growth than defensive and cyclical industries, by a factor of 2 to 3 times. Similarly, both historical and estimated long-term earnings growth for secular growth companies have been double that of defensive and cyclical industries. While some investors are skeptical of high-growth companies, deeming them too speculative with not enough quality, even typical quality metrics have shown to be higher for secular growth companies.

Industry analysis also shows that the preponderance of companies with large barriers to entry and a network effect matters for long-term growth. These companies typically generate significant free cash flow and have more capital to deploy for research and development, leading to more innovation, better products and services that expand their addressable markets, and enhance their network effects. This in turn helps them become an important part of society and portfolios. Disruptive innovation has driven the sustainability of their growth as they've amassed scale and network effects that help compound their businesses and expand their competitive moats.

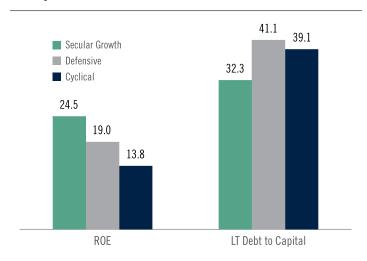
Long-term earnings and sales growth

28.2 Secular Growth Defensive Cyclical 18.0 16.2 14.7 11.5 8.4 7.7 5.6 5.2 Historical 3-Year Historical 3-Year Estimated 3-5 Year **EPS Growth** Sales Growth Earnings Growth

Source: FactSet as of 6/30/20.

It's important to note that today's growth stocks are not the same as the ones investors were ignorantly buying during the tech bubble 20 years ago. Back then, companies with topline growth and lofty valuations flew high irrespective of their fundamentals in terms of free cash flows, profit margins, and long-term earnings prospects. Leading growth stocks today have much higher quality with capital-light business models that drive stronger profitability. They have stronger returns on equity (ROEs) and returns on investment (ROIs), lower debt to capital ratios, and robust free cash flow margins that provide not only robust growth profiles, but more resilient operations that can weather market volatility better than their capitalintensive, lower-margin peers. A key factor helping this trend is the rise of subscription models in recent years that provide strong sources of recurring revenue streams for companies like Amazon, Netflix, Apple, Salesforce.com, and Microsoft.

Quality characteristics



Source: FactSet as of 6/30/20.

With fortified balance sheets, many secular growth companies have ample financial means to innovate and acquire companies to help perpetuate their growth cycles. Consider the cash-rich FANMAG (a popular acronym for Facebook, Amazon, Netflix, Microsoft, Apple, and Google parent Alphabet) stocks, which collectively generated \$35 billion in free cash flow as of the end of the first quarter of 2020—an amount greater than the annual GDP of over half of the countries in the world.⁶ While many cyclical companies will struggle to adapt their businesses and survive, these secular growth companies will focus their efforts on better ways to thrive in the future.



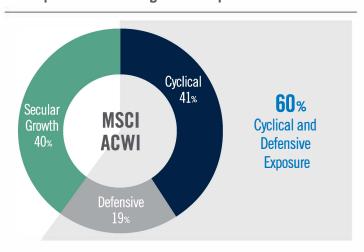
The Disconnect between Growth Potential and Investment Exposure

Investors are underallocated to secular growth companies

The rapid pace of innovation is revolutionizing the world and its operations at an alarming rate. A widening gap has developed between winners (secular growth companies) and losers (cyclical industries) as businesses adapt to new realities, creating value traps that investors need to be mindful of. These at-risk industries dominate broad-based indices today, although they reflect success stories from the past, not the future.

Looking at the allocation of industries in global equity benchmarks and fund categories, we uncovered a strong disconnect between future growth potential (secular growth companies have the highest growth potential as measured by estimated earnings growth) and category exposure. Despite the stronger investment appeal of secular growth industries, most passive and active global equity categories allocate ~60% of their portfolios to defensive and cyclical stocks. As of June 2020, the MSCI ACWI allocated less than 40% to the secular growth cohort while the Morningstar World Large Stock category had 43% exposure to secular growth stocks.

Low exposure to secular growth companies



Source: Morningstar as of 6/30/20.



Rethinking Traditional Allocations to Include Active Secular Growth Exposure

No substitute for deep experience

A well-structured portfolio should include a strategic allocation to secular growth companies focused on future growth prospects from disruptive innovations with significantly higher compounding rates from multi-trillion-dollar opportunities. While investors should evolve their traditional investment strategies to capitalize on secular growth themes, there is no magic formula for consistently identifying quality, durable growth companies. It takes a lot of hard work, detailed research, and comprehensive investment analysis to find these diamonds in the rough and a long-term perspective and conviction to invest in them.

Take the cyclical automobile industry as an example. Structural headwinds and the rise of ride sharing have long plagued the industry and could magnify difficulties in a post-COVID world. Despite its many challenges, Tesla has been a bright spot by revolutionizing the electrification of vehicles with tech-savvy technologies and autonomous driving features that consumers prefer to standard internal combustionengine counterparts. While it sells only a small fraction of the number of cars sold by auto giant Toyota, Tesla has become the world's most valuable automaker. The firm's future growth plans include bringing electric semi-trucks to the global market at scale, an industry primed to benefit from an increased focus on autonomous driving and cleaner energy.

Especially in unprecedented times like today, finding future growth leaders requires a deeply experienced research team that will continuously engage with company management teams, ask tough questions, check and recheck investment theses to completely understand the company's drivers of growth, and ultimately decide if the company's longer-term strategy can be delivered. For these reasons, investors need to consider an active manager with the right skill set to successfully invest in the space. Few managers can run the secular growth strategies needed to successfully capitalize on the growth opportunities in the NEXT economy.

What to Look for in a Secular Growth Manager

Depth and breadth of experience

- History understanding innovation in terms of magnitude and duration
- Knowledge in assessing business models more likely to win
- Ability to identify secular growth themes and companies poised to become leaders early

High conviction investment approach

- Unconstrained yet concentrated portfolio that doesn't dilute return potential from many lesser growth holdings
- Robust investment process with strong risk management
- A long-term view that can see through short-term market noise

Strong track record

- Consistent history of outperformance versus benchmark and peers
- Growth in rising markets and resilience in falling markets



Appendix

Category breakdown by industry

Cyclical

Communication Services

- Diversified Telecommunication Services
- Wireless Telecommunication Services
- Media

Consumer Discretionary

- Hotels, Restaurants, & Leisure
- Diversified Consumer Services
 Distributors
- Leisure Products
- Multi-line Retail
- Specialty Retail

Energy

- Energy Equipment & Services
- Oil, Gas, & Consumable Fuels

Financials

- Banks
- Thrifts & Mortgage Finance
- Diversified Financial Services
- Consumer Finance
- · Capital Markets
- Mortgage REITs
- Insurance

Industrials

- Aerospace & Defense
- Building Products
- Construction & Engineering
- Electrical Equipment
- Industrial Conglomerates
- Machinery
- Trading Companies & Distributors
- Commercial Services & Supplies

- Professional Services
- Air Freight & Logistics
- Airlines
- Marine
- Road & Rail
- Transportation Infrastructure
- Auto Components
- Automobiles
- Household Durables
- Leisure Products

Materials

- Chemicals
- Construction Materials
- Containers & Packaging
- Metals & Mining
- · Paper & Forest Products

Defensive

Consumer Staples

- Food & Staples Retailing
- Beverages
- Food Products
- Tobacco
- Household Products
- Personal Products

Health Care

Pharmaceuticals

Real Estate

- Equity REITs
- Real Estate Management & Development

Utilities

- Electric Utilities
- Gas Utilities
- Multi-Utilities
- Water Utilities
- Independent Power & Renewable Electricity Producers

Secular Growth

Communication Services

- Entertainment
- Interactive Media & Services

Consumer Discretionary

- Textiles, Apparel, & Luxury Goods
- Internet & Direct Marketing Retail

Health Care

- Health Care Equipment & Services
- Health Care Providers & Services
- Health Care Technology
- Biotechnology
- Life Sciences Tools & Services

Information Technology

• IT Services

- Software
- Communications Equipment
- Technology Hardware, Storage, & Peripherals
- Electric Equipment, Instruments, & Components
- Semiconductors & Semiconductor Equipment

Source: Jennison Associates.

Endnotes

¹ Source: Factset.

² Source: Statista, data as of 12/31/19.

³ Source: Statista.

⁴ Source: Company data.

⁵ Source: Statista, data as of May 2020.

⁶ Source: Bloomberg, World Bank.

Definitions

MSCI All Country World Index is a market capitalization-weighted index designed to provide a broad measure of equity-market performance throughout the world. Indices are unmanaged and an investment cannot be made directly in an index.

The Morningstar World Large Stock Category portfolios invest in a variety of international stocks that are larger. World-stock portfolios have few geographical limitations. It is common for these portfolios to invest the majority of their assets in developed markets, with the remainder divided among the globe's smaller markets. These portfolios typically have 20% to 60% of assets in U.S. stocks.

Risks

Foreign investments may be volatile and involve additional expenses and special risks, including currency fluctuations, foreign taxes, and political and economic uncertainties. Emerging and developing market investments may be especially volatile. Investments in securities of growth companies may be especially volatile. Due to the recent global economic crisis that caused financial difficulties for many European Union countries, eurozone investments may be subject to volatility and liquidity issues. Value investing involves the risk that undervalued securities may not appreciate as anticipated. It may take a substantial period of time to realize a gain on an investment in a small or midsized company, if any gain is realized at all. Diversification does not guarantee profit or protect against loss.

Emerging markets are countries that are beginning to emerge with increased consumer potential driven by rapid industrial expansion and economic growth. Investing in emerging markets is very risky due to the additional political, economic, and currency risks associated with these underdeveloped geographic areas. Investing involves risks. Some investments are riskier than others. The investment return and principal value will fluctuate, and shares, when sold, may be worth more or less than the original cost.

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