



**PGIM**  
India Mutual Fund

# The Technology Metamorphosis: How We Grow from Here



## PGIM Jennison

---

[www.jennison.com](http://www.jennison.com)

# The Technology Metamorphosis: How We Grow from Here

- We believe we are in the midst of a decades-long cycle of structural growth driven by technological discovery, innovation, and mass adoption.
- Today, as technology applications shape-shift and influence how we inhabit virtual and physical spaces, the lines between technology and other parts of the economy are blurring, creating room for new products, revenue streams, and customer pools.
- This is reshaping the competitive landscape locally and globally, and challenging incumbents and investors to keep up or fall behind.
- Our research analysts have consistently found the strongest revenue and earnings growth potential among companies that have integrated technology into the core of their business strategy.
- For investors, we believe this represents an extraordinary opportunity to gain exposure to long-term growth and returns from this unfolding secular change.

---

*“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change.”*

*– Charles Darwin*

---

**A**s investors, we constantly ask ourselves what the next drivers of growth will be, where they will be located, and who will benefit. Globally, growth is being driven by businesses that are using new technology and technology concepts to differentiate their offerings, deepen and broaden their customer base, and boost bottom lines.

Innovation and disruption are never at a standstill. It is human nature that people try to better their living conditions and pursue their curiosity and imagination. We believe we are in the midst of a decades-long cycle of structural growth driven by technological discovery, innovation, and mass adoption. Personal and networked computing emerged in the 1990s. The internet dominated the 2000s. Smart phones and mobile applications took over in the 2010s. In the past several years, more engineering breakthroughs have followed, each creating growth cycles as they lead to new commercial applications. Businesses, moreover, are no longer just monitoring what their customers want. The most innovative companies are adept at working out what customers want before they know it themselves.

Today, as technology applications shape-shift and influence how we inhabit virtual and physical spaces, the lines between technology and other parts of the economy are blurring, creating room for new products, revenue streams, and customer pools. The possibilities are vast—businesses and consumers are constantly searching for the next set of solutions. This is reshaping the competitive landscape locally and globally, and challenging incumbents and investors to keep up or fall behind.

## The Unplanned Experiment

The global technology ecosystem was already extensive in 2020, but the restraints of COVID-19 forced a gigantic, unplanned, and uncontrolled experiment in accelerated digitalization. To much surprise, the experiment worked. Workers and consumers who had intermittently used technology now turned to it for hours a day. Businesses that had invested for a digital future fared better than those scrambling to adapt to a new reality.

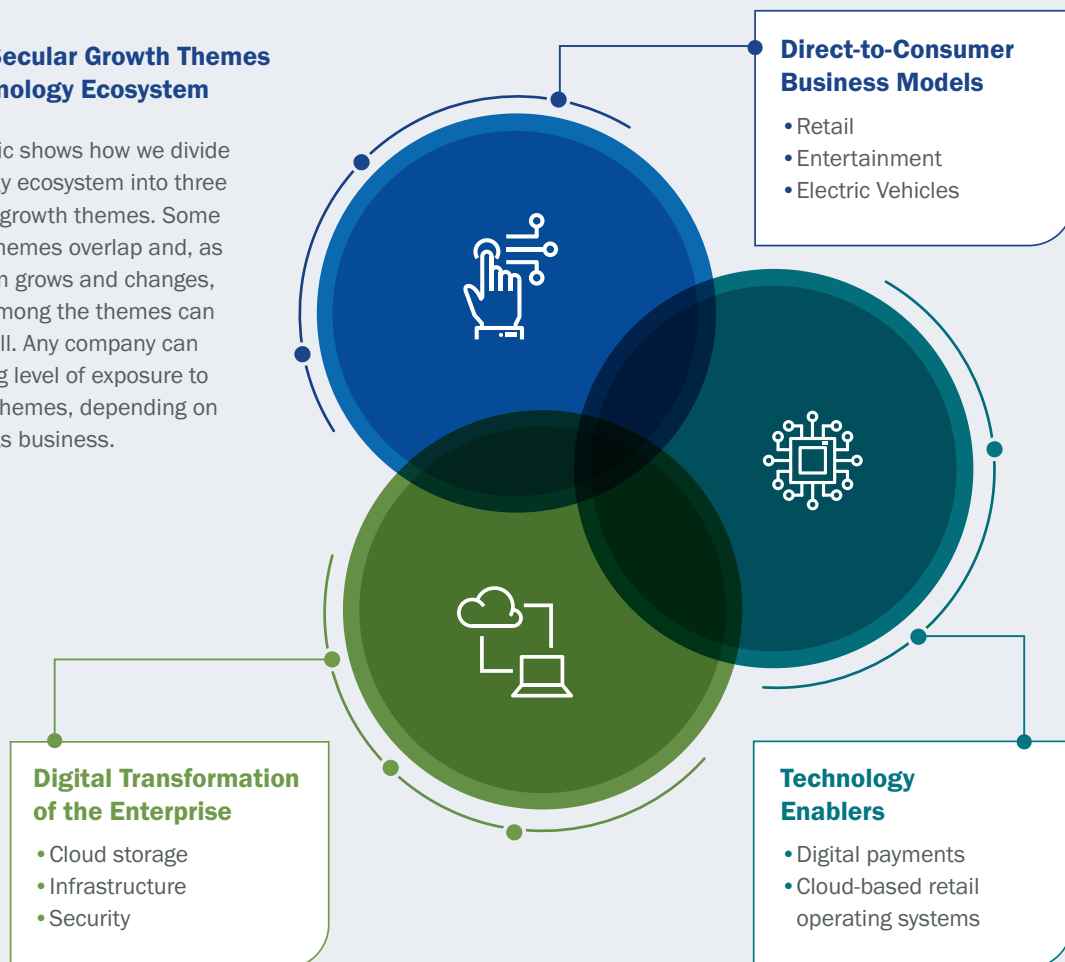
We are not going back to the pre-pandemic world. In fact, we believe the accelerated change that occurred during the pandemic illuminates the future.

Our research analysts have consistently found the strongest revenue and earnings growth potential among companies that have integrated technology into the core of their business strategy. For investors, we have identified three growth themes that extend across industries and countries (Exhibit 1):

1. Direct-to-consumer business models
2. Technology enablers
3. Digital transformation of the enterprise

### Exhibit 1: The Three Secular Growth Themes of the Technology Ecosystem

This schematic shows how we divide the technology ecosystem into three main secular growth themes. Some parts of the themes overlap and, as the ecosystem grows and changes, the overlap among the themes can change as well. Any company can have a varying level of exposure to one or more themes, depending on the focus of its business.



*For illustrative purposes only*

As of September 30, 2021  
Source: Jennison Associates

## 1. DIRECT-TO-CONSUMER BUSINESS MODELS

Direct-to-consumer channels allow product sellers to develop relationships with consumers and bypass intermediaries, avoiding the exorbitant fees or investments necessary to gain access to potential customers. They enable companies to build customer loyalty through superior personal service and expand their target markets, projecting their marketing and sales presence across borders with minimal transactional cost. This model is fundamentally changing the competitive landscape in several industries and, in our view, will only continue to grow as e-commerce becomes more widespread.

E-commerce as a share of global retail sales jumped from 13.6% in 2019 to 18.0% in 2020 (Exhibit 2) as lockdowns and health precautions forced people to stay home. This was the largest one-year increase in six years, and we believe it represents a new baseline for continued growth.

Historically, disruptive technology trends have occurred first in the United States or China, but technology is a global story. Today, e-commerce penetration is in the high 20% range in China and around 20% in the United States.<sup>1</sup> These rates are expected to increase steadily as companies continue to rebalance their sales mix to include online sales. Other regions offer an even more compelling opportunity: e-commerce penetration rates in

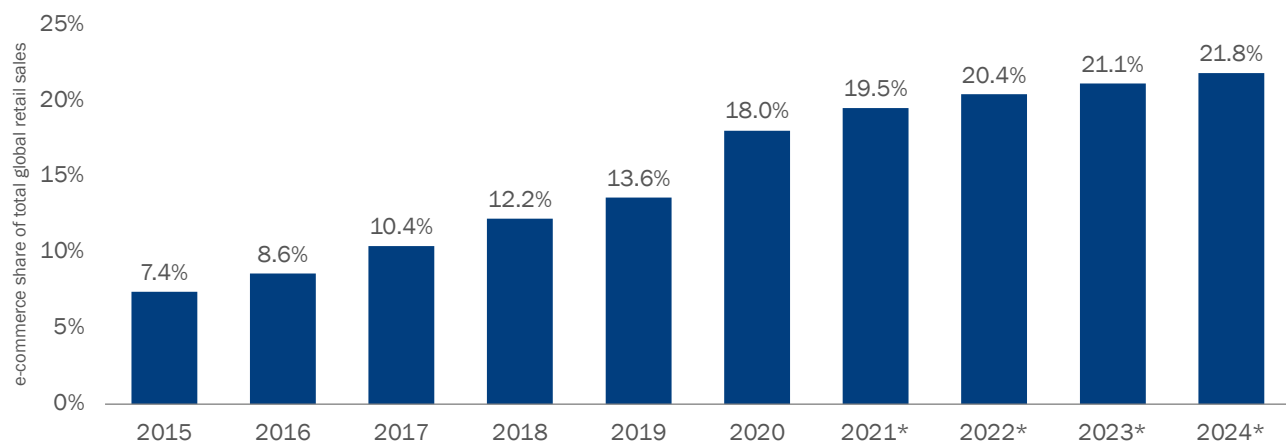
both Latin America and Southeast Asia remain in the low single digits, suggesting significant room for growth over the next several years.<sup>2</sup>

As an example, Argentina-based Mercado Libre, as the dominant e-commerce platform for Latin America, has successfully integrated online marketplaces and a profitable payments business, which is contributing meaningfully to growth.

### Retail

Direct-to-consumer business models are increasingly important in the retail sector as a driver of growth and profitability, allowing global brands to gain better control over the distribution of their products. Companies that have developed successful direct-to-consumer businesses reap the benefits of an omni-channel approach, which is catching on across the retail spectrum, from luxury goods to athleisure. This mix of online and physical footprints proved particularly helpful during the pandemic-related shutdowns. We believe retail companies with effective direct-to-consumer strategies and investment are positioning themselves well for the future. These include companies that have always employed a direct-to-consumer model, as well as those that are significantly reducing their exposure to wholesale distribution in favor of the direct-to-consumer approach.

**Exhibit 2: E-commerce Is a Secular Growth Opportunity**



\*Forecast  
As of July 7, 2021  
Source: Statista

## Entertainment

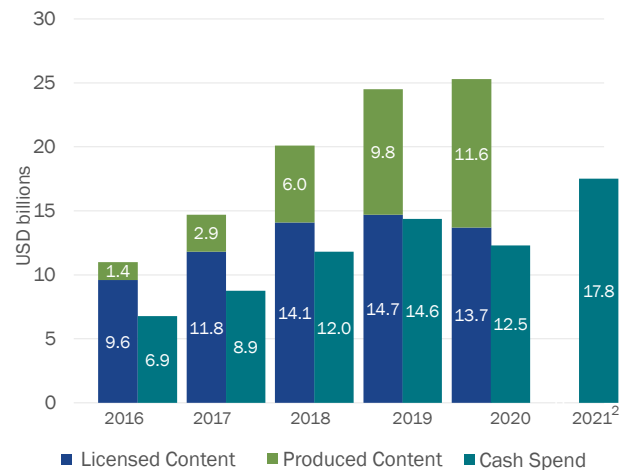
One of the most well-known examples of the direct-to-consumer approach is Netflix, which used the model to launch and define its content streaming business. From its roots as a DVD mail-order company to its current construct as a streaming platform, Netflix has transformed itself through technology. It has disrupted the media and entertainment industries by allowing consumers to decide when and where they consume content, through a commercial-free, subscription-based platform. Netflix created a new standard that provided a wholly different alternative to cable television, or linear TV, and it was the first streaming content company to invest aggressively in the production of original content (Exhibit 3). In 2021, it received 129 Emmy nominations, winning 44 Emmys in addition to seven Academy Awards for its original films. The success of its programming has helped attract new subscribers and is now a key part of the company's competitive advantage, especially against rivals such as Hulu, Disney+, and Amazon Prime.

Netflix has also benefited from its growth in global customers (Exhibit 3), which reflects the company's decision to not just stream non-English language content but also invest in creating it. In addition to launching shows that are designed to appeal to global audiences, Netflix has cast popular local talent in vehicles that reflect regional tastes. This approach has given Netflix a foot in the door in local markets and is one of the main reasons it has been able to add more global subscribers than competitors. It had about 209 million subscribers as of June 2021, with nearly 70% of those subscribers based in North America and Europe, Middle East & Africa (EMEA). The company is expected to add games to its platform in 2022—a format that could further differentiate its platform from its competitors and create room for Netflix to raise subscription fees.

We believe entertainment is not a winner-take-all industry, and we expect a few platforms will account for the majority of future revenue.

### Exhibit 3: Netflix: Developing More Original Content . . .

Content spending of Netflix worldwide<sup>1</sup>

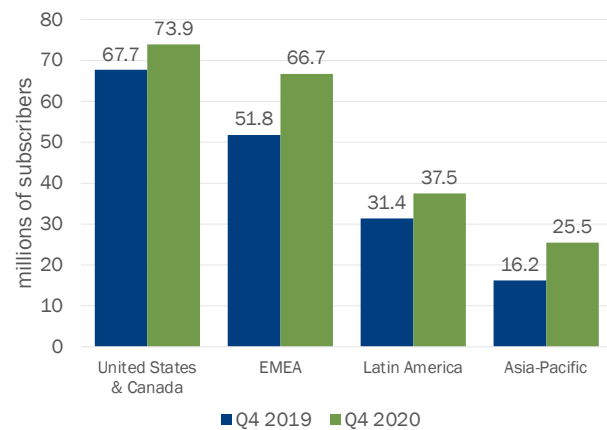


<sup>1</sup> Licensed Content and Produced content are content assets on Netflix's balance sheet, including content that Netflix has already paid for and remains on their platform. Netflix's cash spend includes investments in produced content, but the firm does not break down the data. We believe produced content is likely 70%+ of the firm's cash spend.

<sup>2</sup> Jennison estimate

### . . . for an Increasingly Global Audience

Paid streaming subscribers of Netflix at the end of Q4 2019 versus Q4 2020



Source: Jennison, Netflix, Statista

## Electric Vehicles

Tesla is a market leader in the electric vehicle (EV) industry for a number of reasons, but it also employs a direct-to-consumer model to sell its cars online. This approach brings the company closer to its end customers, with the added benefit of eliminating the costs associated with dealer networks. As Tesla has demonstrated, the direct-to-consumer model can generate higher returns on capital and represents a major innovation in an industry that has conducted business in virtually the same way for almost 100 years.

In addition, Tesla, started by software engineers, effectively sells a computer on wheels, which further transforms the experience of car ownership for the consumer. For example, its integrated software platform delivers software upgrades that fix most issues remotely (which also leads to higher residual values) and allows the company to introduce subscription-based services, primarily from autonomous driving.

### The Electric Slide: A Disruptive Moment for Legacy Auto Makers

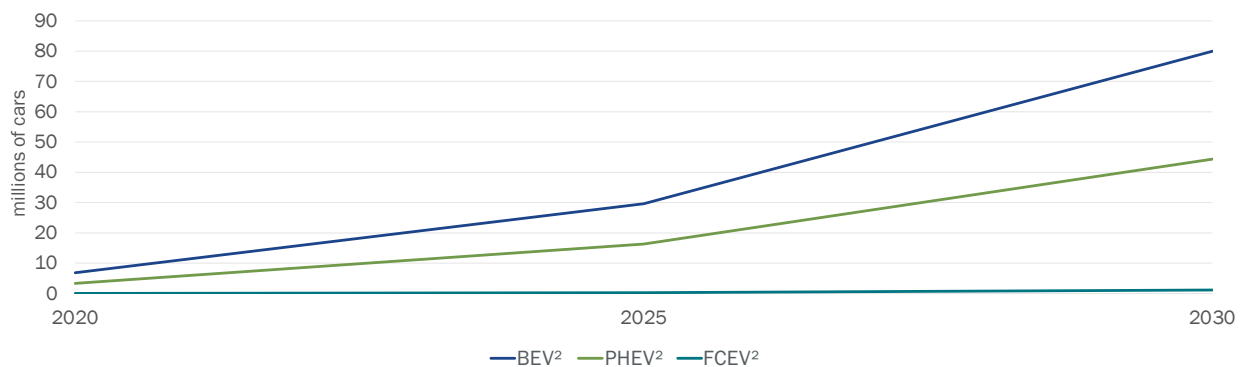
The days of internal combustion engines are numbered as pressure mounts from consumers, governments, and regulators who are increasingly aware of environmental degradation. In the United States, President Joe Biden issued an executive order that seeks to make half of all new vehicles sold in the United States electric by 2030, and an electrical grid of charging stations has been included in an infrastructure bill being considered by Congress. The state of California plans to ban the sale of new cars and passenger trucks that run on internal combustion engines by 2035. Similar measures have been issued or are being considered around the

world. China has announced a prohibition on fossil fuel-powered vehicle sales starting in 2035, excluding hybrid vehicles, and the United Kingdom has a similar pledge targeting 2030. Meanwhile, the growth in electric vehicles is expected to rise sharply over the next decade (Exhibit 4).

The structural change in buying patterns, technology, and manufacturing in the automobile industry, in our view, will leave clear winners and losers. We do not believe that all legacy auto makers will successfully navigate this disruption.

#### Exhibit 4: Demand for Electric Vehicles Is Expected to Soar

Worldwide stock of EVs STEPS scenario<sup>1</sup> 2020-2030



<sup>1</sup> STEPS is the Stated Policies Scenario, which provides a detailed sense of the direction in which today's policy ambitions would take the energy sector.

<sup>2</sup> BEVs are battery electric vehicles. FCEVs are fuel cell electric vehicles. PHEVs are plug-in hybrid electric vehicles.

As of April 29, 2021

Source: International Energy Agency

## 2. TECHNOLOGY ENABLERS

The success of direct-to-consumer businesses is heavily dependent upon other parts of the technology ecosystem. Even just a few years ago, new businesses and entrepreneurs faced daunting challenges when using technology. To interact with customers, they had to create a website, manage it, and invest in the infrastructure to support it. Today, this infrastructure and expertise can be accessed easily and relatively cheaply through companies that exist to simplify the move into e-commerce, in addition to other areas of the digital ecosystem. We call these companies technology enablers, and we believe they are a large and growing category of investment opportunities.

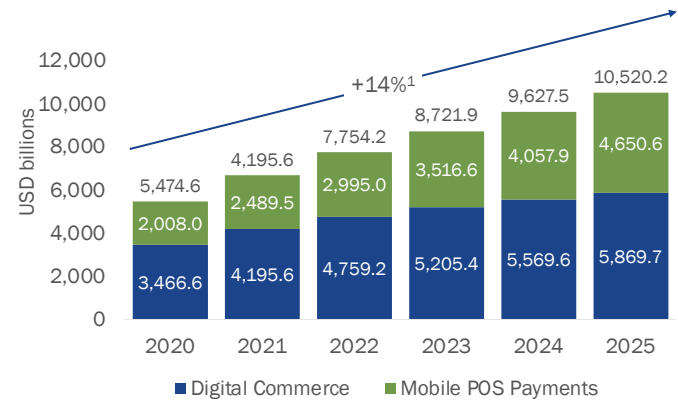
Technology enablers provide the behind-the-scenes infrastructure and expertise that support e-commerce businesses as well as digital payments. Digital payments, for example, are a vital and growing part of the digital economy. The transaction value for global digital payments was \$5.4 trillion in 2020.<sup>3</sup> The long-term shift from cash to electronic credit and debit transactions will likely continue, with annual growth rates over the next five years expected to exceed 15% in the United States and Europe and 10% in China.<sup>4</sup> Many consumers, especially in emerging markets, are excluded from banking systems due to lack of access, costs, or inconvenience.<sup>5</sup> Providers of e-commerce platforms and online financial products and services have a significant opportunity in this large and underserved demographic.

The estimated potential growth remains significant, as we believe the conversion from traditional cash and card payments to digital payments is only half done (Exhibit 5) and is global in scope (Exhibit 6).

China dominates global payments in terms of scale, and it is taking steps to become the first cashless economy in the world. China’s internet companies—led by Tencent (WeChat Pay) and Alibaba (Alipay)—were able to meet rising consumer demand for financial services by delivering them via smartphones conveniently and securely.

### Exhibit 5: Digital Payments Expected to Expand

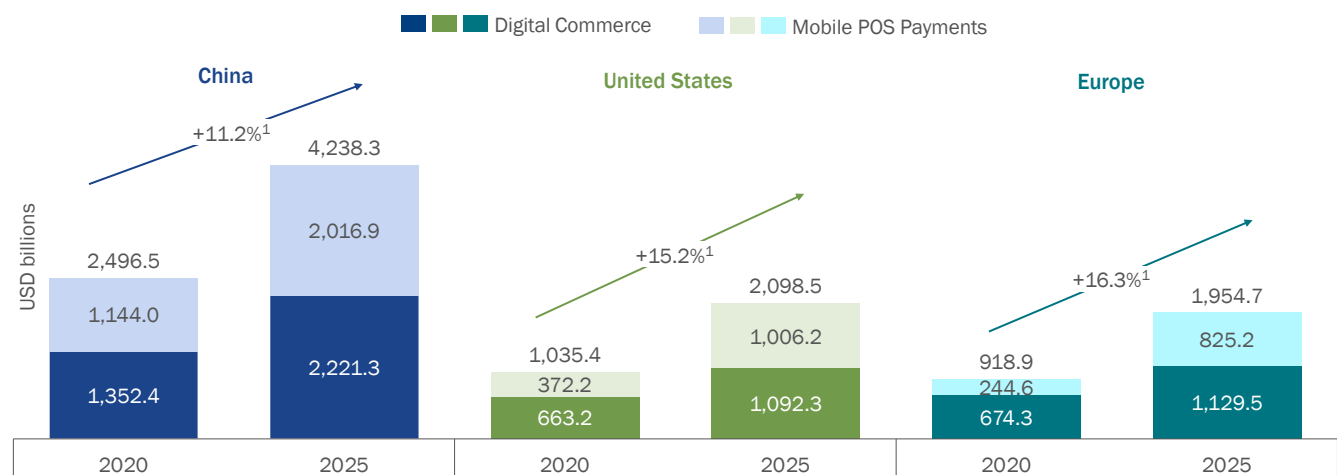
Global transaction value forecast



<sup>1</sup> CAGR (compound annual growth rate)  
As of December 31, 2020  
Source: Statista

### Exhibit 6: Digital Payments Are Growing at Double-Digit Rates in Major Regions

Digital commerce and mobile POS payments



<sup>1</sup> CAGR (compound annual growth rate)  
As of January 2021  
Source: Statista Digital Market Outlook

Even in developed markets, which have sophisticated financial technology and services, start-ups have been able to establish a presence in areas that might appear insulated from competition. Square Cash, for example, processes payments, but it also offers financial and marketing services to companies. Square also brings transaction services to an underbanked population, disintermediating the banking system, bypassing network payment processors, and giving consumers access to more financial products.

Meanwhile, enablers such as Canada's Shopify have single-handedly created new categories. The company provides a one-stop service for businesses seeking to establish online storefronts, taking the hassle out of digital payments management and website creation. Shopify makes it easy for companies and entrepreneurs to quickly set up online while maintaining a direct brand relationship with customers—as opposed to an indirect relationship like selling products through Amazon.

Shopify also allows customers to process online payments across a number of different vendors, such as ApplePay or Google Wallet, alleviating the burdensome task of setting up and maintaining separate payment services. Importantly, Shopify offers its own native payments solution, called Shop Pay, which is powered by Stripe. Shop Pay has become extremely popular with Shopify merchants because it is 70% faster than a typical checkout, which results in conversion rates that are almost twice as high as competing payment options. This offering has become a major driver of revenue growth as Shopify receives fixed fees of all e-commerce transactions processed using Shop Pay over its platform. In the first six months of 2021, almost half of the transaction volume that occurred on Shopify was processed using Shop Pay.<sup>6</sup>

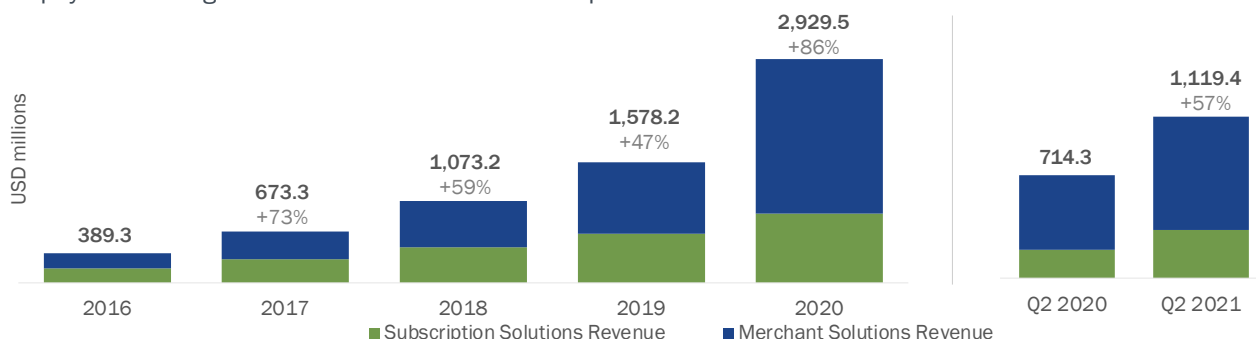
At scale, Shopify could have very high operating margins. Shopify's business model is driven by high gross margin subscription services that are augmented by highly scalable fixed fee revenue generated from Shop Pay. Importantly, Shopify is focused on innovating, improving service, and addressing challenges, such as security threats. The company continues to add services and capabilities that can benefit merchants of all sizes. In particular, Shopify has made big pushes into cross-border e-commerce, shipping solutions, and lending solutions to small- and medium-sized businesses.

Thanks to technology enablers like Shopify, entrepreneurs and big brands alike can bring their disruptive ideas to market quickly and pivot when conditions change. Shopify is just one example of a technology enabler that has benefited significantly as new business formation has accelerated and a greater number of companies build out a long term e-commerce strategy (Exhibit 7). From the beginning, Shopify has been focused on putting the tools of the largest e-commerce companies into the hands of entrepreneurs everywhere. So far, it is the top choice for digital native direct-to-consumer brands such as Kylie Cosmetics and Gymshark; it is also powerful enough to support major brands such as Hasbro and Anheuser-Busch.

The growth of technology enablers is occurring around the world, and we believe it offers opportunities to incumbents, but also to the innovators and disruptors, which are building the scaffolding that businesses need in order to stay competitive and achieve scale. This trend is closely related to our third theme from the technology ecosystem—the digital transformation of the enterprise.

### Exhibit 7: Riding the Stampede into E-Commerce

Shopify's revenue growth from merchant and subscription solutions



As of June 30, 2021  
Source: Shopify

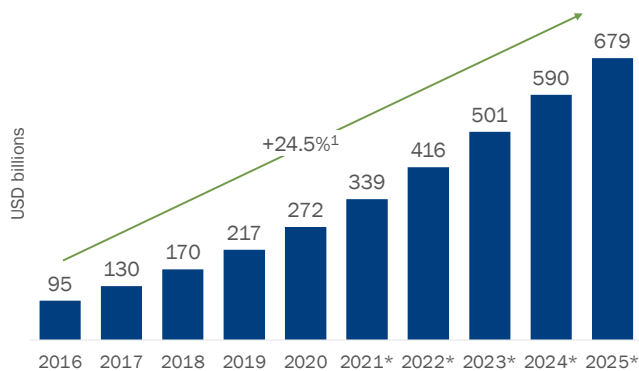


### 3. DIGITAL TRANSFORMATION OF THE ENTERPRISE

We view the emergence of cloud services as a paradigm shift in technology comparable to the advent of the Internet because, at the broadest level, it redefines how data is stored, managed, and delivered. Globally, public cloud revenue is projected to grow at an average annualized rate of nearly 25% to reach \$679 billion in 2025 (Exhibit 8).

#### Exhibit 8: Building Castles in the Cloud

Worldwide public cloud revenue



<sup>1</sup> CAGR (compound annual growth rate)

\*Forecast

As of December 31, 2020

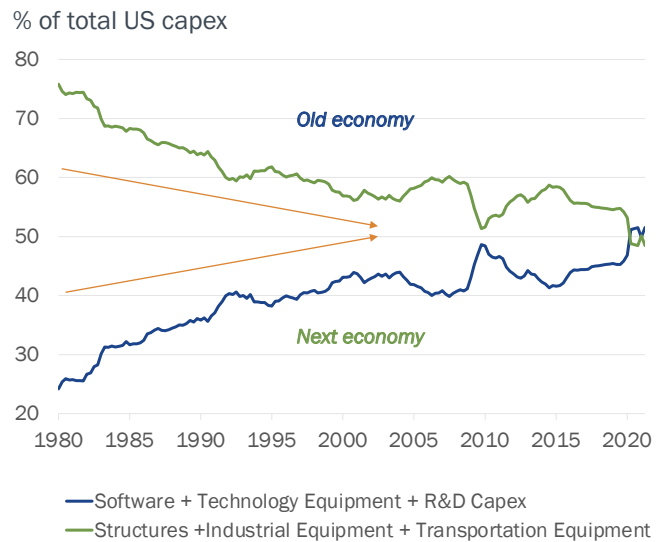
Source: Statista

This investment theme is, in some ways, the latest iteration of a long-standing trend. US capital spending (capex) patterns reveal an ongoing shift towards *next* economy industries at the expense of *old* economy industries. From the early 1980s through early 2020, the amount of capital spending allocated to old economy industries has fallen from more than 70% to just under 50% (Exhibit 9), while capital spending on next economy industries has more than doubled from the mid 20% range to just over 50%. In recent years, US investment in software and research and development has risen, while spending on technology equipment has dwindled (Exhibit 9). We believe that this shift, while clearly evident, is not yet complete.

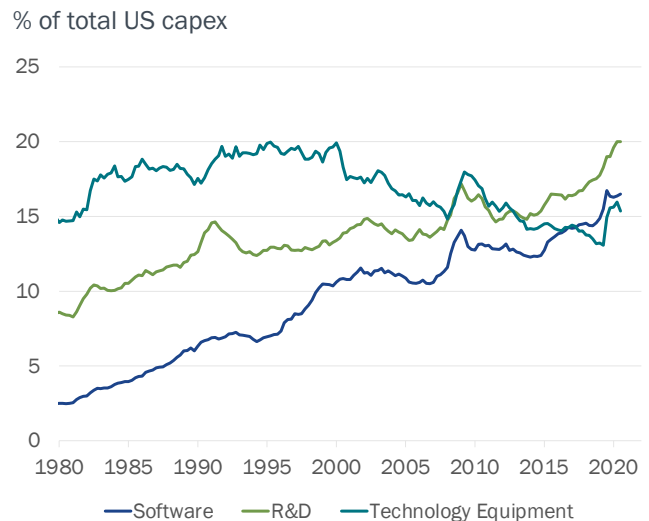
The growth of a business's investment often directly corresponds to the business's ability to seize opportunities and raise its overall growth rate. At the largest and most successful technology companies, the rate of R&D and capex spending as a share of revenue

is significantly higher than that of the overall market. Even among the big scalable platforms, capex spending is higher than the overall market. This investment in technology infrastructure is a core driver of future revenue and earnings growth.

#### Exhibit 9: The Share of US Capex Spending in Software, Technology and R&D Has Risen above 50%...



#### ... And that Growth Is Driven by Increased Spending on Software and R&D



As of 30 June 2021

Source: Cornerstone Macro (used with permission). Bureau of Economic Analysis, [www.bea.gov](http://www.bea.gov), Notes: NIPA Table 1.5.5. United States, National Income and Production Accounts, Nominal Gross Private Domestic Investment, Fixed Investment, Nonresidential, Equipment, Information Processing Equipment

## The SaaS Opportunity

Software-as-a-service (SaaS) companies develop the software needed to manage applications and connect with customers. This cloud-based delivery and storage mechanism reduces the burden of management and device storage for the end user, who no longer has to manually administer software updates or worry about how much local device storage is required. This model maximizes convenience for the user and contributes to stronger and more stable revenue streams for the software provider.

For example, SaaS company DocuSign is the leading provider of e-signatures, which replaces paper-based processes that require in-person “wet signatures.” E-signature adoption has wide-ranging benefits, including improved ease of use, improved multi-party workflow and amendment management, reduced environmental impact, digital document archiving, and improved content search functionality. However, the true power of DocuSign’s software resides with the tools they provide for the document creator. DocuSign’s e-signature service can be delivered inside of a customer’s existing application, which can improve conversion rates and speed up close times. DocuSign provides the ability to design custom workflows around the signing and iteration process which typically becomes deeply embedded into the business processes of the customer.

*Only a small fraction of companies ultimately create genuine value for themselves, their customers, and shareholders over the long term. These companies can be category leaders or at an earlier stage of their life cycle, and they have a rare combination that our research analysts seek: high quality growth that has both magnitude and duration.*

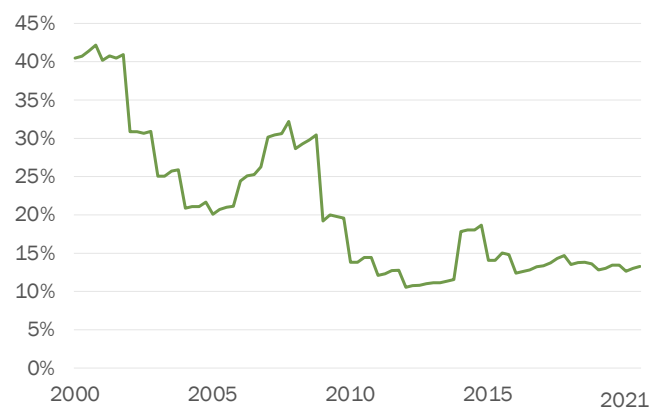
The market opportunity for e-signature is over \$26 billion and is applicable across all sectors of the global economy.<sup>7</sup> While COVID-19 dramatically accelerated the adoption of e-signature due to quarantines and social distancing, we believe few customers will go back to paper and pen. We expect the use of e-signature will grow consistently off the higher base established since 2020.

## Adapting Faster

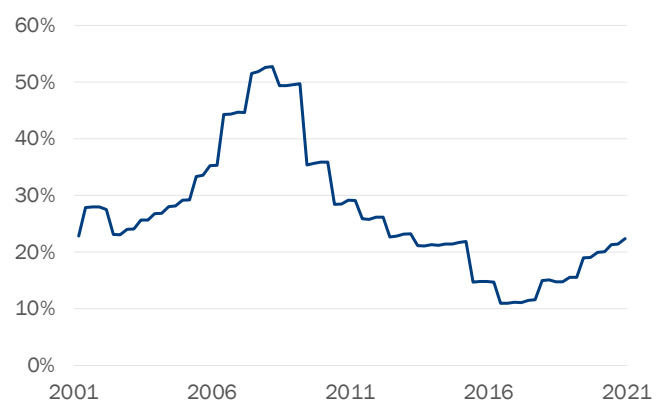
Every company is scrambling to digitalize their business as fast as possible. This is a race for survival. While it can be easy to spot a technology-driven company, it is far more difficult to determine which of those are able to grow rapidly and, at the same time, defend their business model and profits. Adding to the challenge, the incidence of companies delivering strong sales growth has declined, creating a scarcity of dynamic opportunities in the market. In the United States, the proportion of companies growing their sales at 15% or greater over five-year time periods has declined from 40% of the S&P 500 Index in 2000 to less than 15% in 2021. Companies in the MSCI ACWI Index have seen a similar decline, from above 50% in 2008 to about 20% in 2021 (Exhibit 10).

### Exhibit 10: Strong Sales Growth Is Increasingly Scarce

Percentage of S&P 500 companies with average annual sales growth over 15% on a five-year basis<sup>1</sup>



Percentage of MSCI ACWI companies with average annual sales growth over 15% on a five-year basis<sup>1</sup>



<sup>1</sup>Five-year sales growth recorded on a quarterly basis  
As of June 30, 2021  
Source: FactSet

Only a small fraction of companies ultimately create genuine value for themselves, their customers, and shareholders over the long term. These companies can be category leaders or at an earlier stage of their life cycle, and they have a rare combination that our research analysts seek: high quality growth that has both magnitude and duration.

The extended growth opportunity in technology is less about the success of a single product or concept than about a company's ability to capture more revenue streams from adjacent products or services. Amazon and Alphabet are examples—both have diversified their business mixes over time in order to capture cash flows from a variety of sources, ranging from digital advertising to cloud services subscriptions.

The shock of the pandemic has more clearly revealed this new world of technology-driven change. Many companies that had invested in technology or incorporated it deeply into their strategies were well positioned, and we do not expect this trend to weaken even as the worst of the pandemic passes. Across industries, companies are evolving to asset-light balance sheets, leading to higher margins and more sustainable profitability. Compared to asset-heavy models, benefits can include higher return on assets, lower profit volatility, greater flexibility and higher scale-driven cost savings. For investors, we believe this represents an extraordinary opportunity to gain exposure to long-term growth and returns from this unfolding secular change.

Jennison's growth equity platform, founded in 1969, has \$120.8 billion in assets under management, spanning US, international, global, and emerging markets capabilities.<sup>1</sup> We are high-conviction, active investors who construct benchmark-agnostic portfolios based on in-depth research of company fundamentals. We believe that long-term outperformance can be achieved by investing in high-growth, market-leading companies that create economic value through unique business models and long-duration competitive advantages. We seek to invest in these companies at the early stages of their growth lifecycle, long before their potential is fully appreciated by the market.

<sup>1</sup> As of June 30, 2021. Firm AUM is \$241.4 billion.

## Disclosures

Published on September 30, 2021.

The financial indexes referenced herein are provided for informational purposes only. All indexes referenced are registered trade names or trademark/ service marks of third parties. References to such trade names or trademark/service marks and data are proprietary and confidential and cannot be redistributed without Jennison's prior consent. Investors cannot directly invest in an index.

Certain third party information in this document has been obtained from sources that Jennison believes to be reliable as of the date presented; however, Jennison cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. Jennison has no obligation to update any or all such third party information. There is no assurance that any forecasts, targets, or estimates will be attained.

Jennison uses the Global Industry Classification Standard (GICS®) for categorizing companies into sectors and industries. The Global Industry Classification Standard (GICS®) is the exclusive intellectual property of MSCI Inc. (MSCI) and Standard & Poor's Financial Services, LLC (S&P). Neither MSCI, S&P, their affiliates, nor any of their third party providers ("GICS Parties") makes any representations or warranties, express or implied, with respect to GICS or the results to be obtained by the use thereof, and expressly disclaim all warranties, including warranties of accuracy, completeness, merchantability and fitness for a particular purpose. The GICS Parties shall not have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of such damages.

**The MSCI All Country World Index** is a free float-adjusted market capitalization weighted index designed to measure the equity market performance of developed and emerging markets. It comprises approximately 24 developed and 21 emerging market country indexes. The net benchmark return is reported net of reclaimable and non-reclaimable withholding taxes. Withholding tax rates used for the benchmark differ from, and may be higher than, the withholding tax rates used when calculating the composite return. The financial indices referenced herein are provided for informational purposes only. When comparing the performance of a manager to its benchmark(s), please note that the manager's holdings and portfolio characteristics may differ from those of the benchmark(s). Additional factors impacting the performance displayed herein may include portfolio-rebalancing, the timing of cash flows, and differences in volatility, none of which impact the performance of the financial indices. Financial indices are unmanaged and assume reinvestment of dividends but do not reflect the impact of fees, applicable taxes or trading costs which may also reduce the returns shown.

MSCI information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages.

**The S&P index(es) ("Index") is a product of S&P Dow Jones Indices LLC and/or its affiliates and has been licensed for use by Jennison Associates, LLC.**

Copyright © 2021 S&P Dow Jones Indices LLC, a division of S&P Global, Inc., and/or its affiliates. All rights reserved. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. For more information on any of S&P Dow Jones Indices LLC's indices please visit [www.spdji.com](http://www.spdji.com). S&P® is a registered trademark of S&P Global and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC.

## Important Information

This material is only intended for investors which meet qualifications as institutional investors as defined in the applicable jurisdiction where this material is received. This material is not for use by retail investors and may not be reproduced or distributed without Jennison Associates LLC's permission.

These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. Jennison makes no representations regarding the appropriateness of any securities, financial instruments or strategies described in these materials. In providing these materials, Jennison is not acting as your fiduciary. These materials do not purport to provide any legal, tax or accounting advice.

Jennison Associates LLC ("Jennison") has not been licensed or registered to provide investment services in any jurisdiction outside the United States. The information contained in this document should not be construed as a solicitation or offering of investment services by Jennison or a solicitation to sell or a solicitation of an offer to buy any shares of any securities (nor shall any such securities be offered or sold to any person) in any jurisdiction where such solicitation or offering would be unlawful under the applicable laws of such jurisdiction.

Please visit [jennison.com/important-disclosures](http://jennison.com/important-disclosures) for important information, including information on non-US jurisdictions. In the United Kingdom, and various European Economic Area jurisdictions, information is issued by PGIM Limited. PGIM Limited registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR is authorised and regulated by the Financial Conduct Authority of the United Kingdom (registration number 193418) and duly passported in various jurisdictions in the EEA. Jennison Associates LLC & PGIM Limited are wholly owned subsidiaries of PGIM, Inc. the principal investment management business of Prudential Financial, Inc. ("PFI"). PFI of the United States is not affiliated in any manner with Prudential plc, incorporated in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom. This information is intended only for persons who are professional clients or eligible counterparties as defined in Directive 2014/65/EU (MiFID II), investing for their own account, for fund of funds, or discretionary clients.

©2021 Prudential Financial, Inc. ("PFI"). PGIM and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide.

## Endnotes

<sup>1</sup> China and US data: “How e-commerce share of retail soared across the globe: A look at eight countries,” McKinsey & Company, March 5, 2021.

<sup>2</sup> ASEAN data: J.P. Morgan estimates, Euromonitor, EDTA, and MOEA. As of December 31, 2019. Latam: Statista, EBANX; AMI. March and April 2020.

<sup>3</sup> Researchandmarkets.com, June 7, 2021.

<sup>4</sup> Statista, as of January 2021

<sup>5</sup> It is estimated that 1.7 billion adults remained “unbanked” as of 2017 (the most recent data), yet two-thirds of them own a mobile phone that could help them access financial services. World Bank, “The Global Findex,” April 19, 2018.

<sup>6</sup> Shopify

<sup>7</sup> DocuSign

Certain information in this commentary has been obtained from sources believed to be reliable as of the date presented; however, we cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. The manager has no obligation to update any or all such information, nor do we make any express or implied warranties or representations as to the completeness or accuracy. Any projections or forecasts presented herein are subject to change without notice. Actual data will vary and may not be reflected here. Projections and forecasts are subject to high levels of uncertainty. Accordingly, any projections or forecasts should be viewed as merely representative of a broad range of possible outcomes. Projections or forecasts are estimated, based on assumptions, subject to significant revision, and may change materially as economic and market conditions change.

This material is being provided for informational or educational purposes only and does not take into account the investment objectives or financial situation of any client or prospective clients. The information is not intended as investment advice and is not a recommendation. Clients seeking information regarding their particular investment needs should contact their financial professional.

PGIM Quantitative Solutions, Jennison Associates and PGIM are registered investment advisors and Prudential Financial companies. PGIM Quantitative Solutions is the primary business name of PGIM Quantitative Solutions LLC. PGIM Quantitative Solutions LLC (PGIM Quantitative Solutions) a wholly owned subsidiary of PGIM. PGIM Fixed Income and PGIM Real Estate are units of PGIM. ©2021 Prudential Financial, Inc. and its related entities. Jennison Associates, Jennison, PGIM Real Estate, PGIM and the PGIM logo are service marks of Prudential Financial, Inc. and its related entities, registered in many jurisdictions worldwide.

© 2020 Prudential Financial, Inc. (PFI) and its related entities. PGIM, the PGIM logo, and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide.  
Mutual Fund investments are subject to market risks, read all scheme related documents carefully.



**PGIM India Asset Management Private Limited**

4th Floor, C Wing, Laxmi Towers, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051.

Connect with us on      [www.pgimindiamf.com](http://www.pgimindiamf.com)  1800 2667 446