



**Jay Jacobs, CFA**

Head of iShares Thematic and Active ETFs

June 30, 2022

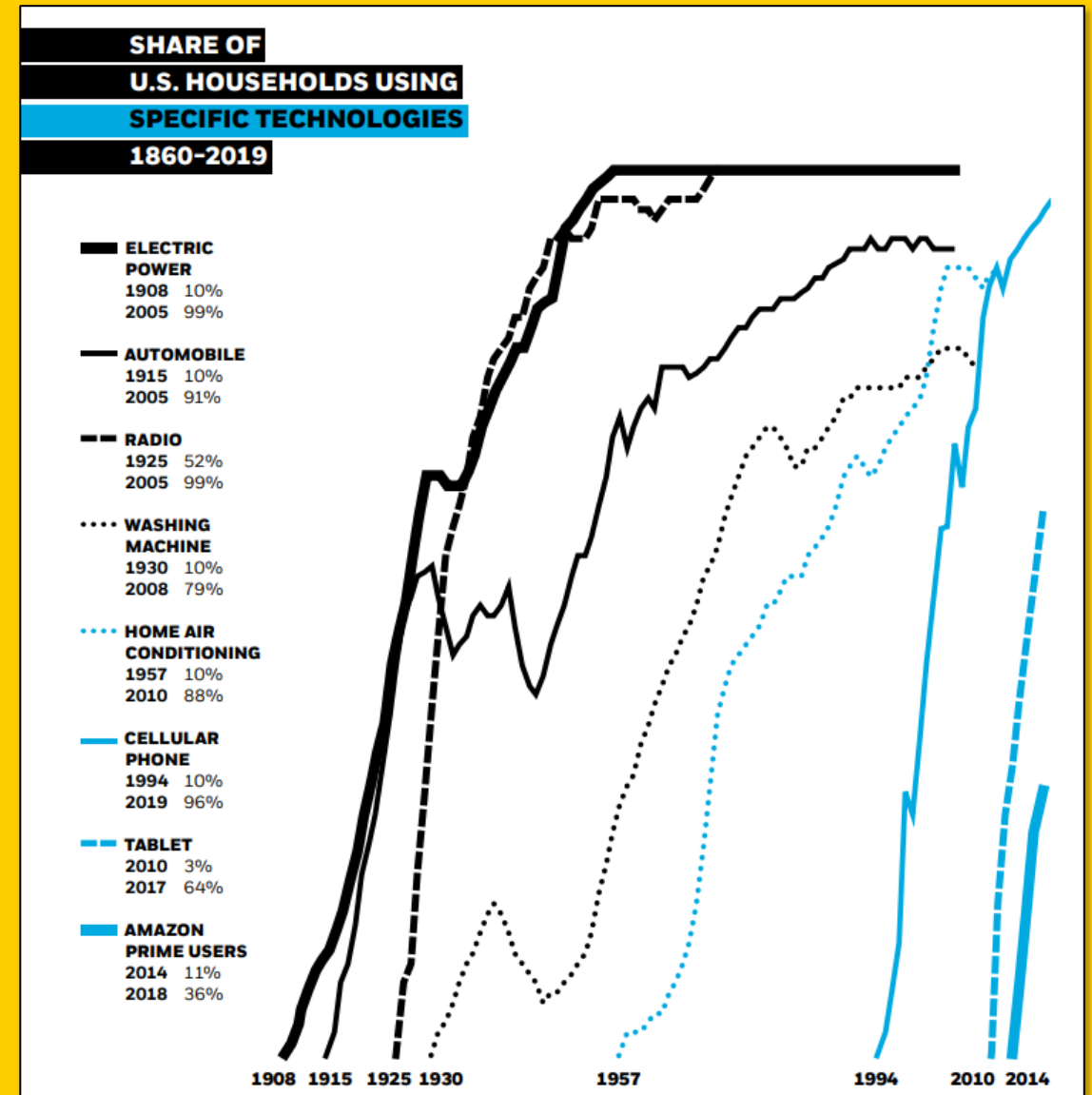
**iShares**  
by BlackRock

# INVESTING IN BIG IDEAS WITH ETFs

“The future will be far more surprising than most people realize, because few observers have truly internalized the implications of the fact that the rate of change itself is accelerating.”

## Ray Kurzweil

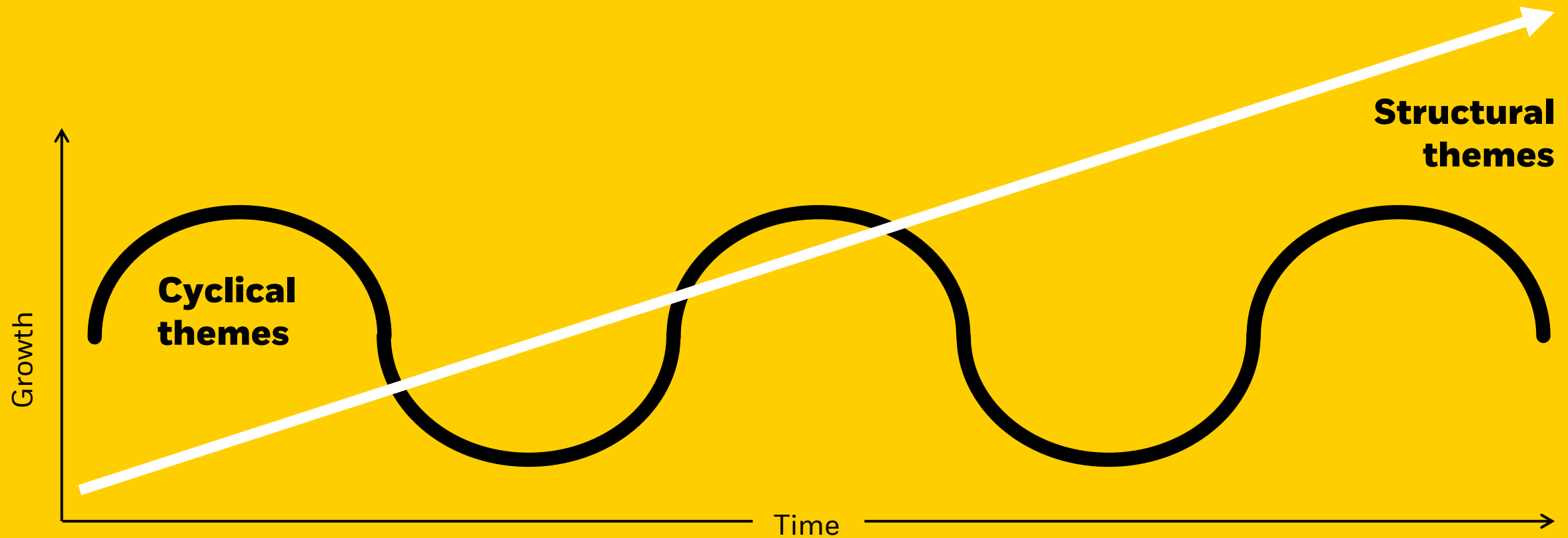
American Inventor & Futurist



Sources: Horace Dediu, Comin and Hobijn (2004) and others, Our World in Data. Data from 1860 to 2019. Variable descriptions are as follows: Electric power: Percentage of U.S. households with electric power. Radio: Percentage of U.S. households that own a radio. Automobile: Percentage of U.S. households that own an automobile. Washing machine: Percentage of U.S. households that own a washing machine. Home air conditioning: Percentage of U.S. households with home air conditioning. Cellular phone Usage: Percentage of U.S. adults who own a cell phone. Tablet: Percentage of U.S. adults who own a tablet. Amazon Prime Users (adults aged 15+): Percentage of the U.S. population who are Amazon Prime users. Calculated as the number of Amazon Prime users divided by the U.S. population aged 15 and over.

# Structural > cyclical

**Structural themes are long-term opportunities driven by powerful transformations in our economy and society**



For illustrative purposes only.

# The Great Acceleration



**An industrial  
renaissance**



**The upshot of  
post-COVID  
medicine**



**The power of  
the purse**

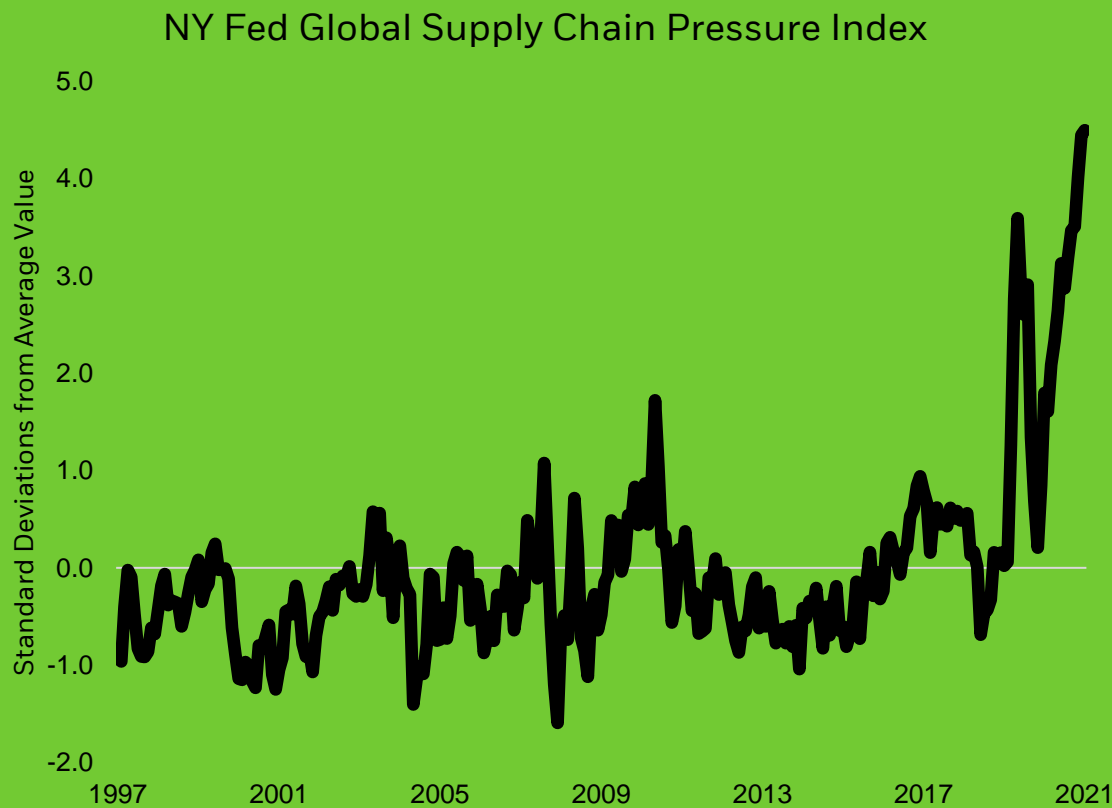


# An industrial renaissance



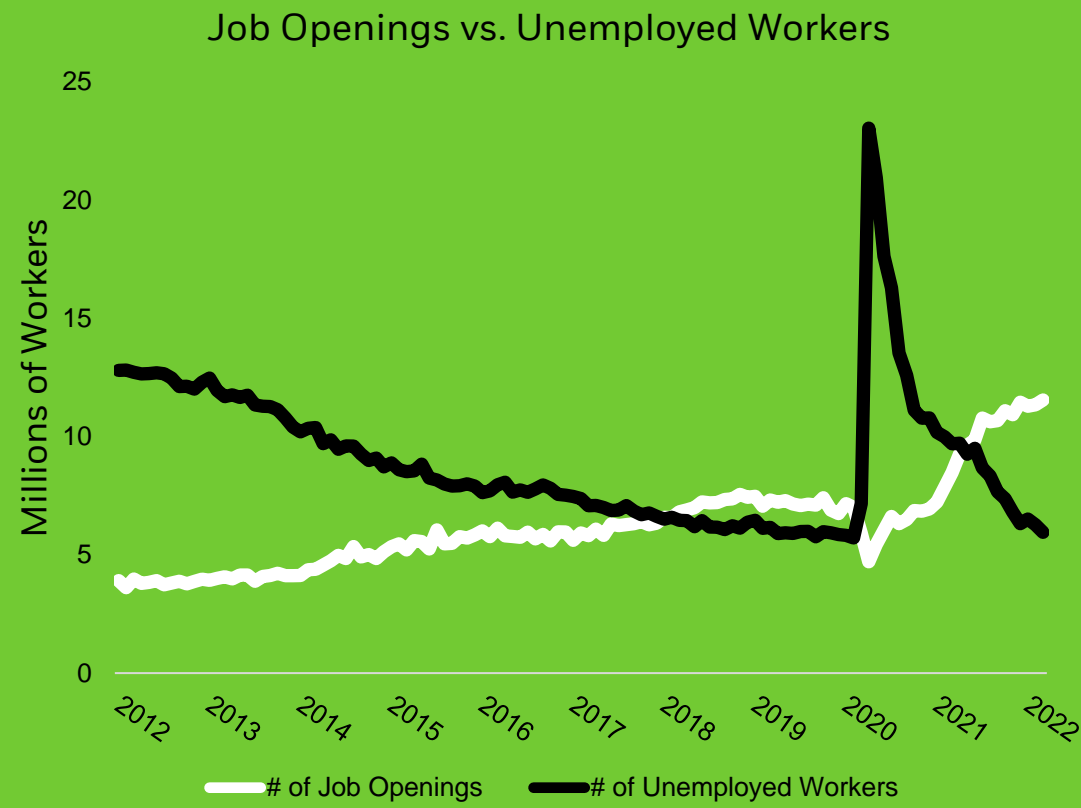
# Record supply chain woes and labor shortages

## Supply chains are pushed to the brink



Source: NY Fed Global Supply Chain Pressure Index

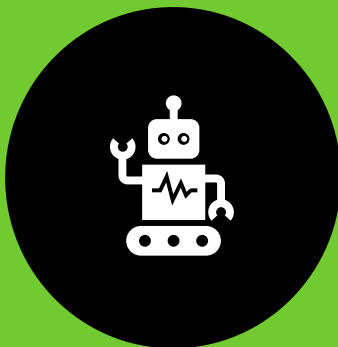
## ...and labor pressure is real.



Source: Bureau of labor statistics as of 3/31/2022

# An industrial renaissance

Supply chain weakness, revealed by the pandemic and exacerbated by conflict in Eastern Europe, has forced a reimagining of global supply chains.



## Don't Wait, Automate

Robot sales in North America enjoyed a record year in 2021.<sup>1</sup>



## Getting From Point A to Point B

\$3.2T in global infrastructure stimulus spending allocated to improve areas such as roads, bridges and ports.<sup>2</sup>



## Labor Shortage Hits Home

The truck driver shortage hit a record in 2021 and is expected to double by 2030.<sup>3</sup>

### Looking ahead

The "all hands on-deck" effort from businesses and governments to build resiliency in supply chains is a potential catalyst for increased spending on robotics, EVs/AVs and infrastructure.

<sup>1</sup>Automate.org, "Robot Sales in North America have Strongest Year ever in 2021," February 2022. <sup>2</sup> Transformative Outcomes Through Infrastructure GitHub <sup>3</sup> American Trucking Associations Inc., October 2021.

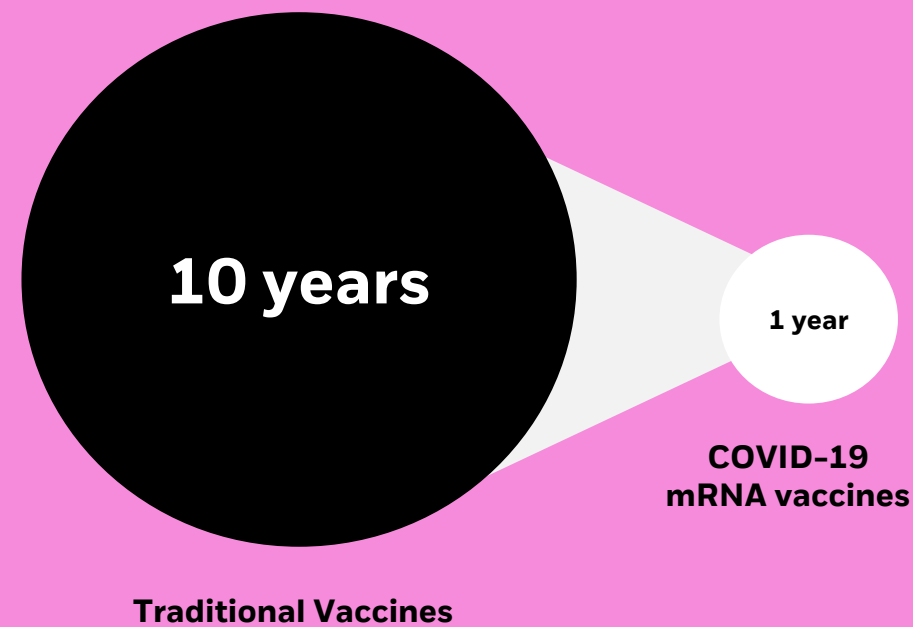
# **The upshot of post-COVID medicine**





# Carrying the lessons from COVID-19 into the future

mRNA COVID-19 vaccines were developed 10x faster than traditional vaccines



Five factors affected the speed with which COVID-19 vaccines were developed

	Factor	Saving (years)
COVID Specific	Reduced regulatory red tape	3.5
	Knowledge Sharing + Fast-Moving Virus	1-2
	Tech-Enabled Advancement via mRNA Technologies	1
Non COVID Specific	Faster trial funding & robust production build-up	3.5
	Improved execution tactics	1.5

Source: McKinsey, Fast-forward: Will the speed of COVID-19-vaccine development reset industry norms? May 2021.

# The upshot of post-COVID medicine

New technologies, lower cost of capital and regulatory enhancements could lead to increased innovations in the genomics and immunology space.



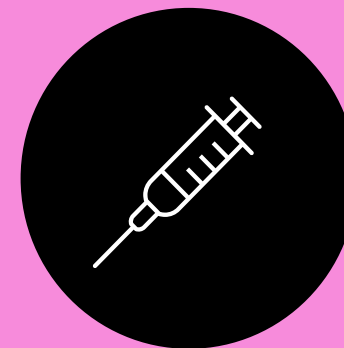
## mRNA for other applications

Robust pipeline of mRNA vaccines designed to treat some of the world's most deadly diseases.



## Precision Medicine

10K diseases are the result of a single gene mutation.<sup>1</sup>



## Pipeline to Patient

The mean development timeline of new drugs is ~10 years.<sup>2</sup>

### Looking ahead

Recent breakthroughs in the genomics and immunology space presents attractive opportunities for investors to potentially capture exponential growth by owning a diversified set of companies leading in these areas.

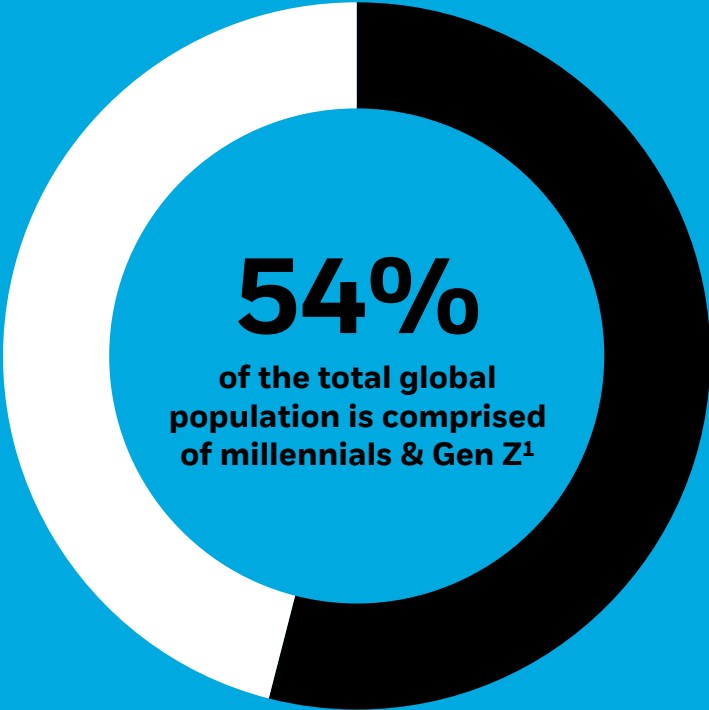
<sup>1</sup>YourGenome.org, "What Are Single Gene Disorders," July 2021 <sup>2</sup>McKinsey, Fast-forward: Will the speed of COVID-19-vaccine development reset industry norms? May 2021.

# The power of the purse



# Demographics are destiny

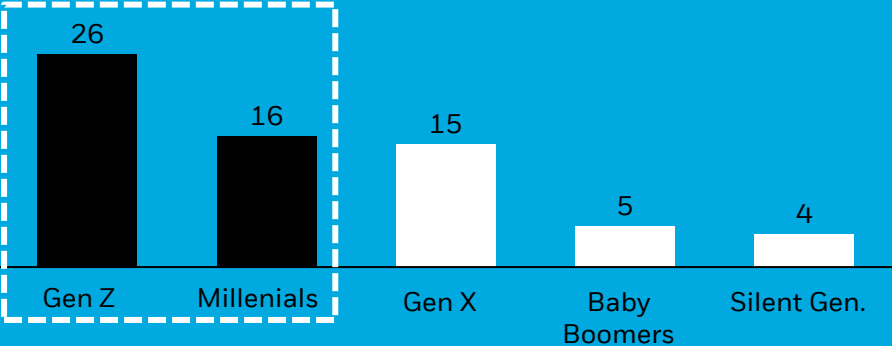
## Consumption power is shifting to millennials & Gen Z



<sup>1</sup>Bank of America, United Nations. 2020.

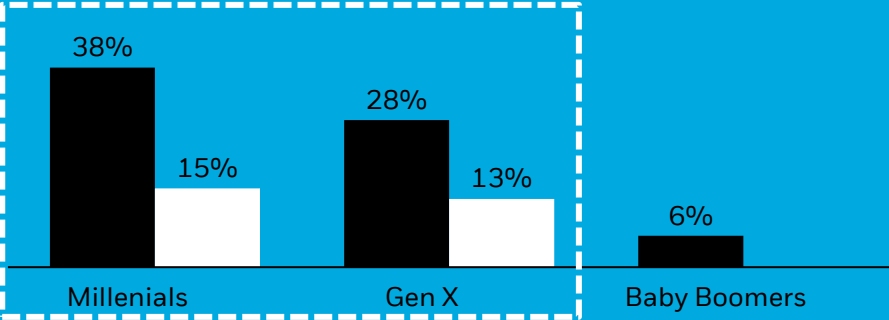
## ...and their tastes vary widely from past generations

*% of people who eschew meat<sup>2</sup>*



*% of people who invest in<sup>3</sup>*

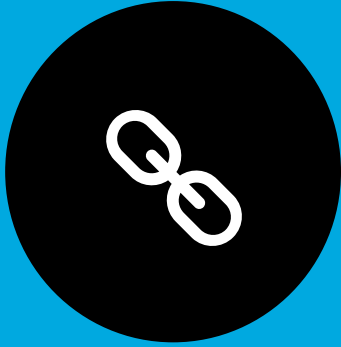
■ Cryptocurrency ■ NFTs



<sup>2</sup>Statista, Data based on UK survey. 2021. <sup>3</sup>Investopedia Financial Literacy Study.

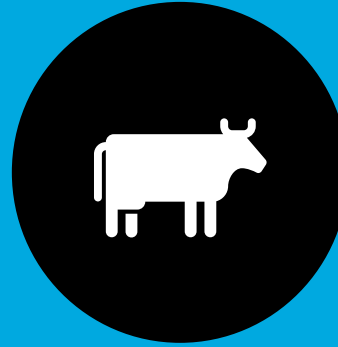
# The power of the purse

**While lockdowns slowed economic activity, they could not derail major demographic trends.**



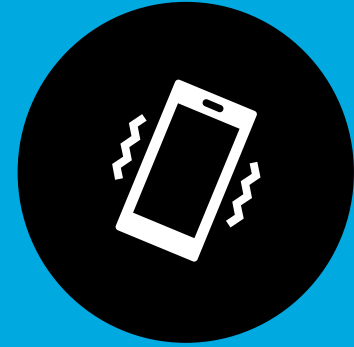
## Decentralized ties that bind

2.5B people lack access to banking, yet 60% of these people have smartphone access.<sup>1,2</sup>



## Where's the Beef?

800M people per year lack access to sufficient nutrition yet food production accounts for 34% of global emissions.<sup>3,4</sup>



## Rise of the EM Consumer

EM consumers represent over 50% of global spending.<sup>5</sup>

### Looking ahead

Investors seeking to position portfolios around demographic shifts can look towards themes such as blockchain and emergent food that may be catalyzed by the growth of new consumers.


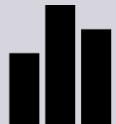


<sup>1</sup>Paymentsjournal.com, "2.5 billion people are unbanked. Can Fintech Change That?," March 2018. <sup>2</sup>PewTrusts.org, "What do Consumers Without Bank Accounts Think About Mobile Payments?," June 2016. <sup>3</sup>United Nations, Global Issues – Food, 2021. <sup>4</sup>United Nations, "New FAO Analysis Reveals Carbon Footprint of Agri-Food Supply." <sup>5</sup>McKinsey, "Outperformers: High growth emerging economies and the companies that propel them," September 2018.



# How to invest in big ideas



# Capturing a big idea with your investments

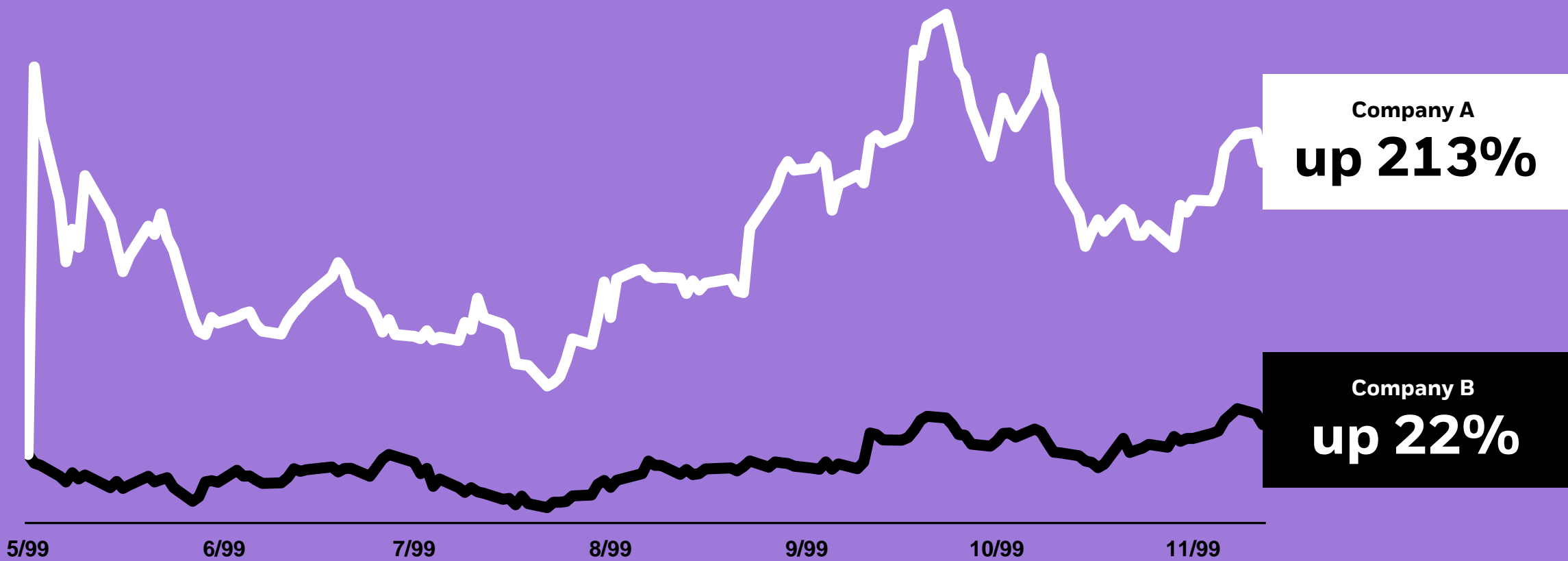
		Individual stocks	Active thematic ETF	Index thematic ETF
<b>Approach</b>		Seeks individual companies that may be involved in a particular theme	Seeks to identify both attractive themes and potential beneficiaries of those themes	Seeks to provide exposure to a theme's value chain
<b>Performance goal</b>		Typically to track the financial performance of a single company	Typically to outperform a benchmark	Typically to track a benchmark index
<b>Risk<sup>1</sup></b>		Concentrated risk, based on prospects of a single company	Diversified exposure to many securities	Diversified exposure to many securities
<b>Cost</b>		Transaction / brokerage costs	Transaction / brokerage costs  Management fees typically tend to be higher due in part to relatively frequent changes in the fund's composition	Transaction / brokerage costs  Management fees typically tend to be lower due in part to relatively infrequent changes in the fund's composition

1 Different funds carry different amounts of risks and some funds may be more diversified than others. Diversification may not protect against market risk or loss of principal.

Investment comparisons are for illustrative purposes only. To better understand the similarities and differences between investments, including investment objectives, risks, fees and expenses, it is important to read the products' prospectuses.

# Case study: Difficulty of picking the winner

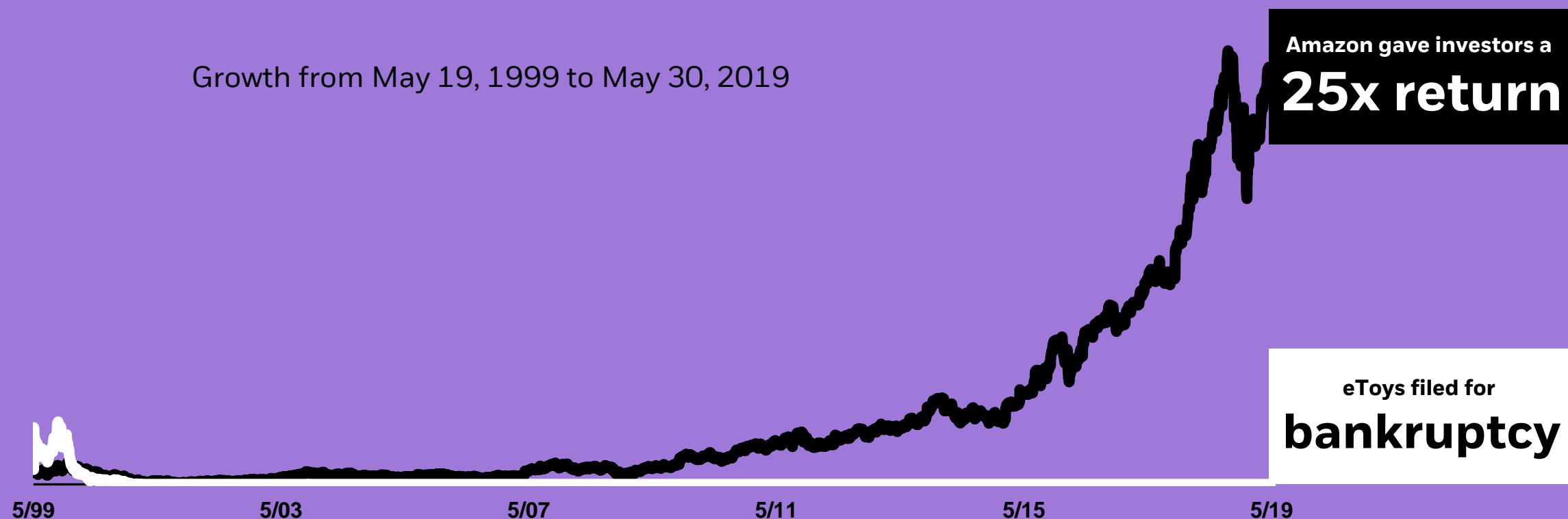
Spotting the trend: Two “pure-play” e-commerce names had very different charts in 1999



For illustrative purposes only. Source: Bloomberg. May – December 1999.

# Case study: Difficulty of picking the winner (cont.)

Spotting the trend: They were even more different 20 years later



For illustrative purposes only. Source: Bloomberg. Amazon total return was 2,502% between 05/19/1999 and 05/30/2019. Includes dividends. eToys filed for bankruptcy in February, 2001. References to specific companies are strictly for illustrative purposes only and should not be construed as investment advice or recommendations regarding those companies. For holdings information for the iShares funds, please visit [www.iShares.com](http://www.iShares.com).

# Capturing the big idea's value chain

**EV batteries**

**AV software and  
technology**

**EV charging  
and  
components**

**EV battery materials**

For illustrative purposes only.



# Owning the future

## An industrial renaissance

**IDRV**

Exp ratio:  
0.47%

iShares Self-Driving EV  
and Tech ETF

## The upshot of post-COVID medicine

**IDNA**

Exp ratio:  
0.47%

iShares Genomics  
Immunology and  
Healthcare ETF

## Next-gen consumer

**IBLC**

Exp ratio:  
0.47%

iShares Blockchain and  
Tech ETF

***Exposure across multiple themes...***

**XT**

Exp ratio:  
0.46%

iShares Exponential  
Technologies ETF

# In summary

## THE GREAT ACCELERATION

An industrial renaissance



Innovative healthcare



Next-gen consumer



## CAPTURING BIG IDEAS

Individual securities

Mutual funds

ETFs

## GETTING STARTED

**IDRV**

Exp ratio:  
0.47%

iShares Self-Driving EV  
and Tech ETF

**IDNA**

Exp ratio:  
0.47%

iShares Genomics  
Immunology and  
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**IBLC**

Exp ratio:  
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iShares Blockchain and  
Tech ETF

# Important notes

**Carefully consider the Funds' investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the Funds' prospectuses or, if available, the summary prospectuses which may be obtained by visiting [www.iShares.com](http://www.iShares.com) or [www.blackrock.com](http://www.blackrock.com). Read the prospectus carefully before investing.**

## **Investing involves risk, including possible loss of principal.**

When comparing stocks or bonds and iShares Funds, it should be remembered that management fees associated with fund investments, like iShares Funds, are not borne by investors in individual stocks or bonds. The annual management fees of iShares Funds may be substantially less than those of most mutual funds. Buying and selling shares of iShares Funds will result in brokerage commissions.

International investing involves risks, including risks related to foreign currency, limited liquidity, less government regulation and the possibility of substantial volatility due to adverse political, economic or other developments.

Funds that concentrate investments in specific industries, sectors, markets or asset classes may underperform or be more volatile than other industries, sectors, markets or asset classes and the general securities market.

Technology companies may be subject to severe competition and product obsolescence. Technologies perceived to displace older technologies or create new markets may not in fact do so. Companies that initially develop a novel technology may not be able to capitalize on the technology.

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