

The post-COVID world comes into focus

J.P. Morgan Asset Management Strategic Investment Advisory Group



Presentation outline

EXECUTIVE SUMMARY

The pre-pandemic era and the COVID Shock

TOPIC AREAS

- 1. Demographic changes
- 2. Global trade dynamics
- 3. Inflation and monetary policy
- 4. Fiscal policy is back
- 5. The impact of government spending
- 6. The commuter economy
- 7. Real estate supply challenges
- 8. Durable changes in equity markets

CONCLUSION

Key takeaways and portfolio implications



The pre-pandemic era was a benign, but fragile equilibrium – vulnerable to an economic shock.



- Global health crisis
- Social distancing
- Supply chain disruption
- Migration slowdown
- Fiscal spending surge
- Inflation spike
- Monetary policy tightens
- Interest rates rise
- Asset prices fall

With the pandemic now in the rear-view mirror, what has really changed?

Demographic changes

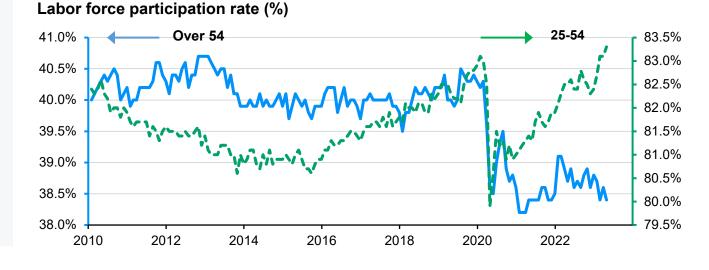
Developed economies face headwinds from aging populations, declining labor force participation, and limited immigration. COVID may have shown a potential solution: the use of technology to access labor remotely.



COVID and the challenge of a shrinking labor force

Younger workers have returned to the labor force. Older workers have not.

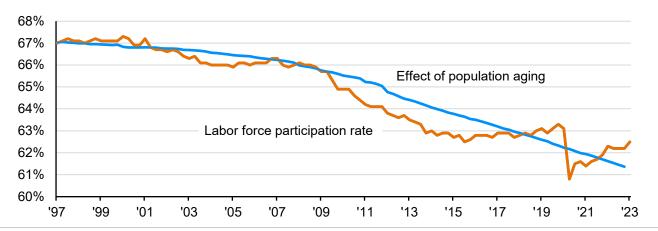
Source: U.S. Department of Labor Bureau of Labor Statistics, J.P. Morgan Asset Management; data as of March 2023.



Long-term demographic trends are negative. But recent increases in participation may be a hopeful sign that technology is helping.

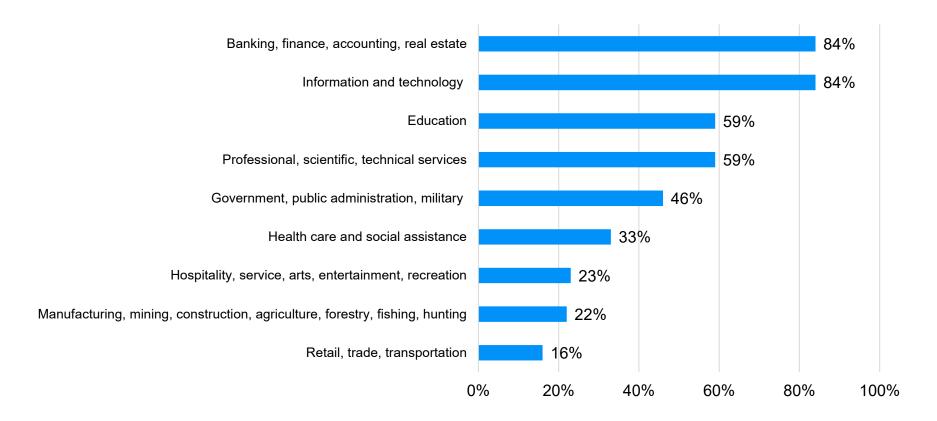
Source: U.S. Department of Labor, J.P. Morgan Asset Management; data as of April 30, 2023.

Impact of aging on labor force participation (%)



Service industries are most likely to use flexible work arrangements

Percentage of employed adults who say that, for the most part, the responsibilities of their job can be done from home



Source: Pew Research Center survey of U.S. adults conducted October 13-19, 2020.

Global trade dynamics

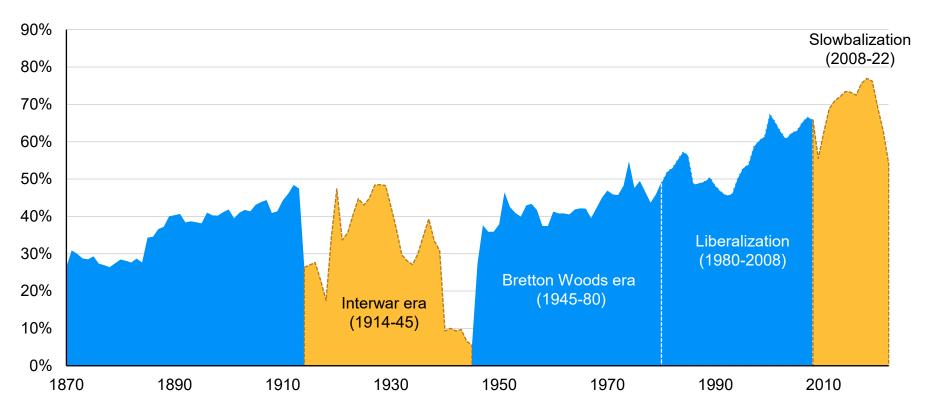
Manufacturing supply chains are adapting to a multipolar world. Other countries and regions are beginning to prudently diversify away from China, reducing its historically dominant position in the global trade system.



The multi-decade upswing in global trade had peaked even before COVID

The disruption of supply chains was an additional driver of de-globalization

Trade openness 1870–2020 (sum of exports and imports by % of GDP)

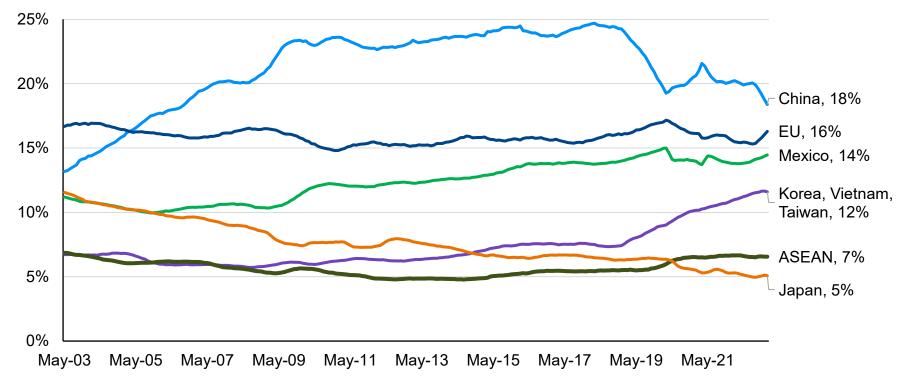


Source: Jordà-Schularick-Taylor Macrohistory Database, Penn World Table Data (10.0), Peterson Institute for International Economics, World Bank and IMF calculations. Note: Sample composition changes over time.

Global trade in manufactured goods is being re-wired

The rise of "near-shoring" and "friend-shoring" is shifting trade away from China

Share of U.S. manufacturing imports



Source: J.P. Morgan Asset Management, CPB World Trade Monitor; data as of July 31, 2022.

Inflation and monetary policy

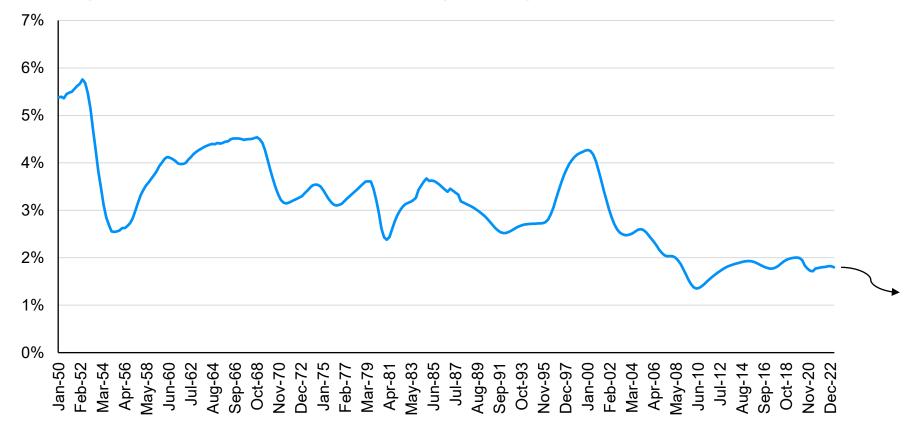
Inflation will respond to traditional monetary policy tools. But bringing inflation back to target will require below-trend growth and may prove harmful to leveraged balance sheets.



The economy can only grow so fast without sparking inflation

Lower potential growth makes it harder for the Fed to achieve its dual mandate

Potential growth rates in the U.S. have been declining for a long time

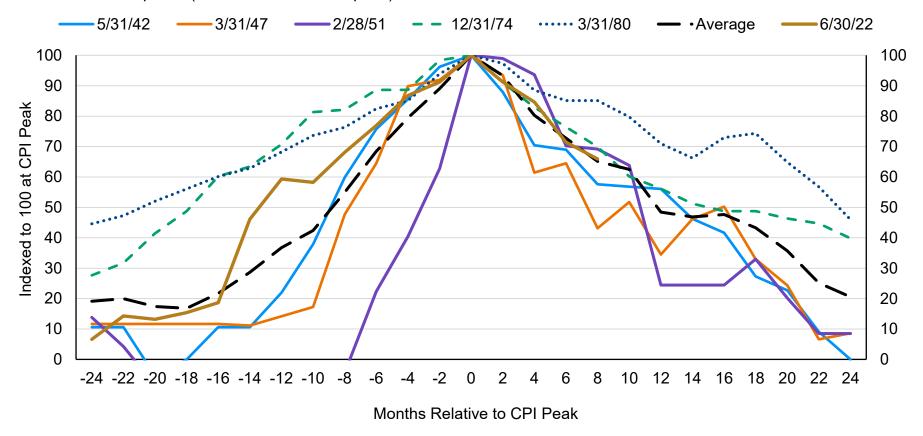


Source: U.S. Census Bureau; data as of 2022.

The current inflation cycle is following historical patterns

Traditional monetary policy is working and should continue to reduce inflation going forward

Historical inflation peaks (indexed to 100 at CPI peak)



Source: U.S. Department of Labor Bureau of Labor Statistics, J.P. Morgan Asset Management; data as of March 2023.

Fiscal policy is back

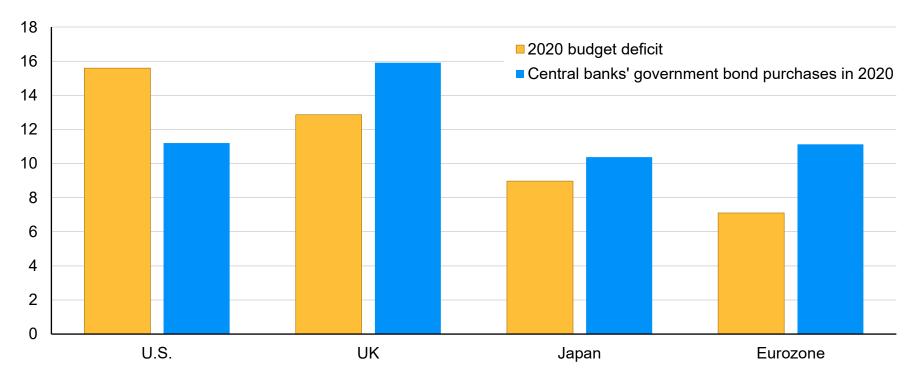
Governments rediscovered the power of fiscal spending, and monetary authorities responded by buying debt and managing the inflationary impact. The "central bank put" may have been replaced with a "fiscal policy put."



Central banks facilitated the COVID era surge in government spending

Bond purchase programs accounted for most of the debt issued, helping to avoid "crowding out"

COVID deficit spending and central bank bond purchases (% of GDP, 2020)

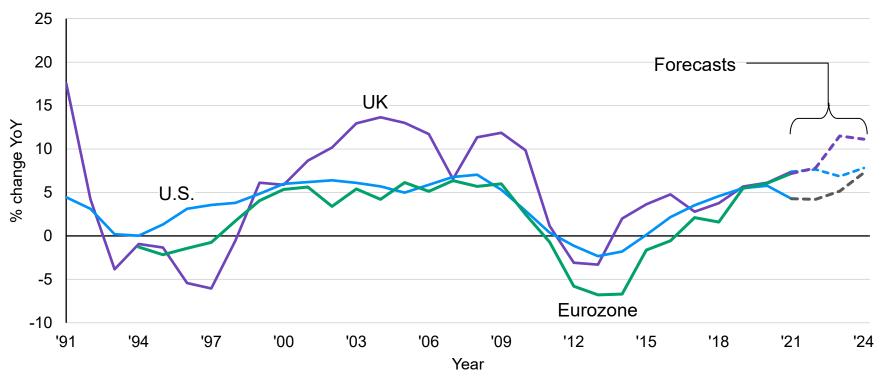


Source: BEA, BoE, BoJ, Bloomberg, Cabinet Office (Japan), ECB, Eurostat, Federal Reserve, ONS, Refinitiv Datastream, J.P. Morgan Asset Management. Data as of 27 April 2023.

The appetite for fiscal spending will extend beyond the COVID era

Public sector investment is projected to continue increasing across the developed world

Annual % growth in public sector investment (% change YoY, 3-year moving average)



Source: OECD, J.P. Morgan Asset Management. Chart shows a smoothed measure of government gross fixed capital formation. Forecast is OECD. Eurozone is average of France, Germany, Italy and Spain; data as of April 27, 2023.

The impact of government spending

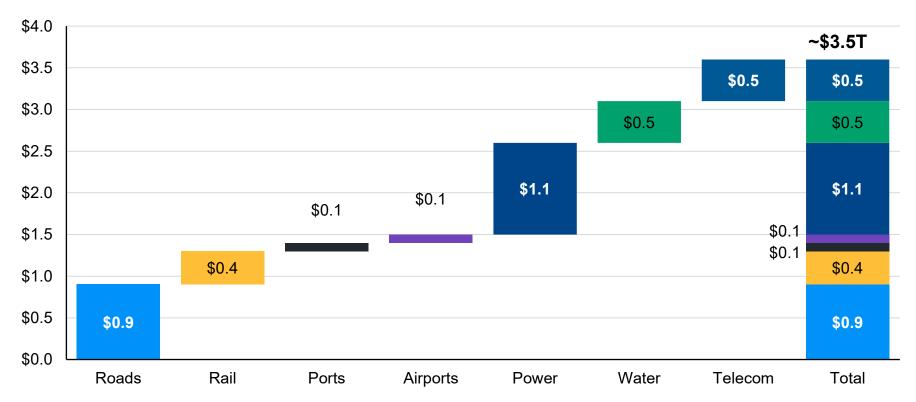
Policymakers are directing government investment to favored sectors of the economy, including infrastructure, energy transition, technology and healthcare.



Massive investment in infrastructure is necessary

Private capital will be needed alongside public sector spending to reach target levels

Average annual infrastructure need (USD trillions, constant 2017 dollars)

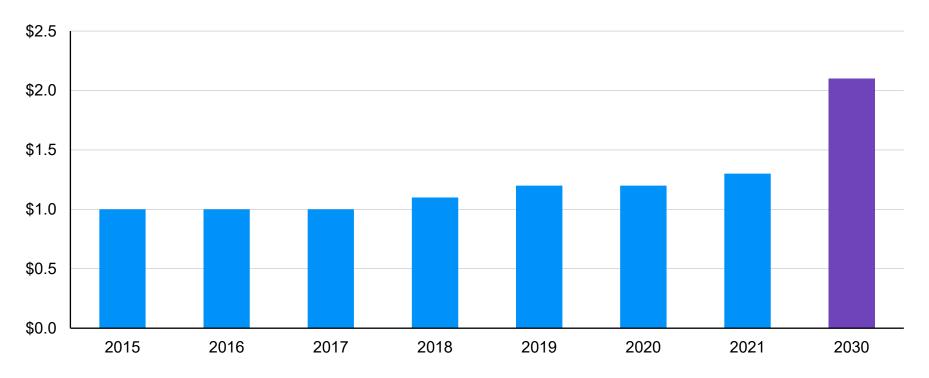


Source: International Energy Agency, World Energy Outlook 2022.

The energy transition will accelerate in response to massive investment

Direct government spending and tax incentives create a multi-year opportunity

Clean energy investment in the IEA stated policies scenario, 2015–'30 (USD trillions)



Source: International Energy Agency, World Energy Outlook 2022.

The commuter economy

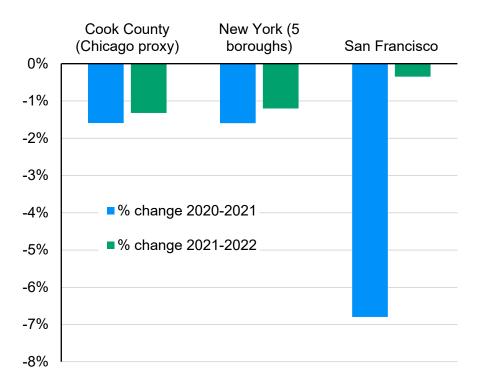
Cities that depend on mass transit must evolve or face a permanent decline. COVID revealed the costs and inefficiencies of the commuter economy, and patterns of work are changing.



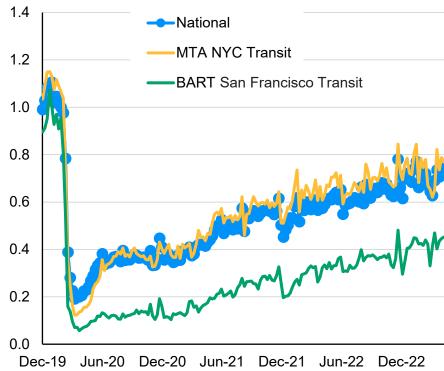
Fewer residents and fewer commuters pose risks for some cities

The recovery of dense urban central business districts depends on workers returning

Estimated population change 2020-'22



National and major city commuter rail traffic (weekly ridership trend, February 2018–March 2023)



Source: McKinsey Global Institute, J.P. Morgan Asset Management; data based on availability, as of November 30, 2022.

Real estate supply challenges

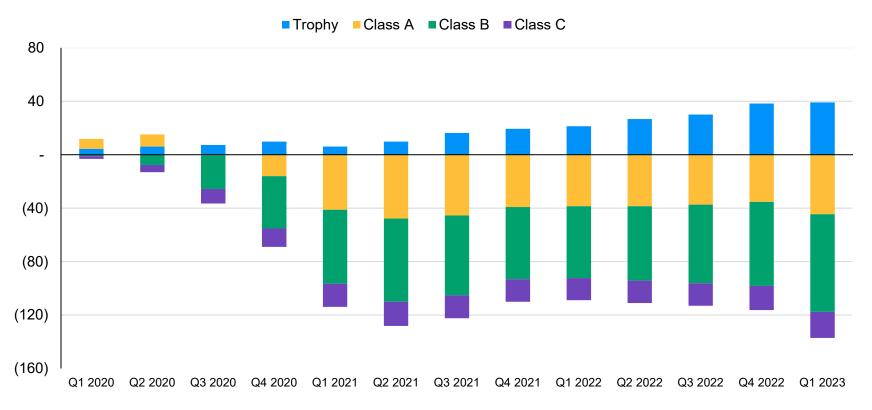
Excess office space cannot be easily repurposed. The supply of residential housing and industrial property is inadequate, requiring additional development.



Office tenants want the best quality, leaving older buildings behind

Performance is widening between trophy properties and less desirable office buildings

Cumulative tenant demand growth since 4Q 2019 (Millions of Sq. Ft.)

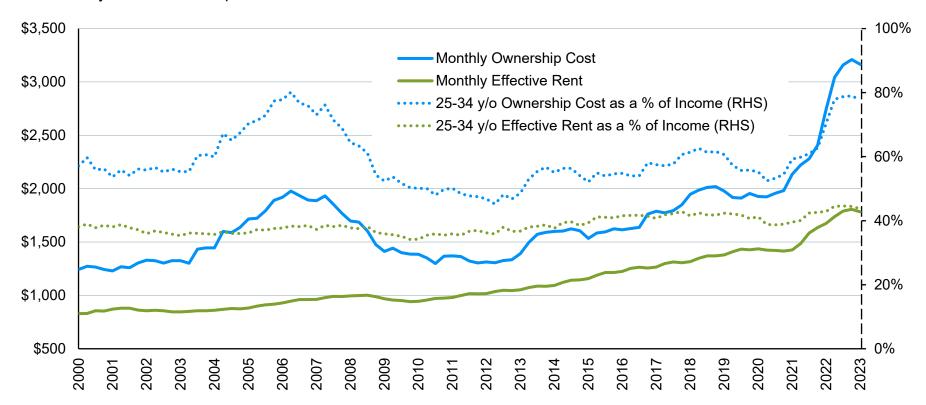


Source: J.P. Morgan Asset Management, CoStar; data is as of Q1 2023

Home ownership is unaffordable for many, increasing rental demand

The cost to own a home as a proportion of income hovers near all-time highs

Total monthly cost to rent an apartment vs. own a home



Source: U,.S. Department of Labor Bureau of Labor Statistics (BLS), John Burns Consulting, Axiometrics. Cost/rent as a percentage of income determined by taking monthly cost/rent divided by 4x the median weekly income for full-time workers between the ages of 25 and 34 years old; Data as of 1Q 2023.

Durable changes in equity markets

positioning in sectors with higher post-pandemic growth prospects, from successfully maintaining pricing **power**, and from the impact of government **policy**.



Positioning: the global shift to cloud services and e-commerce gains speed

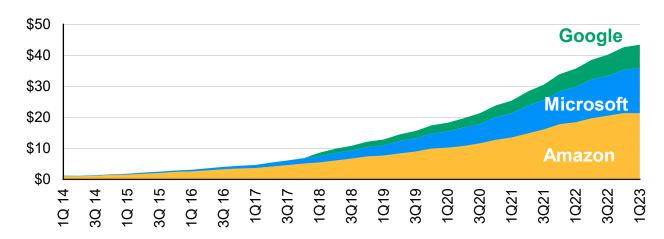
Data usage does not face natural limits to scale that exist in other industries

Source: Company filings and J.P. Morgan Asset Management estimates; data as of April 27, 2023.

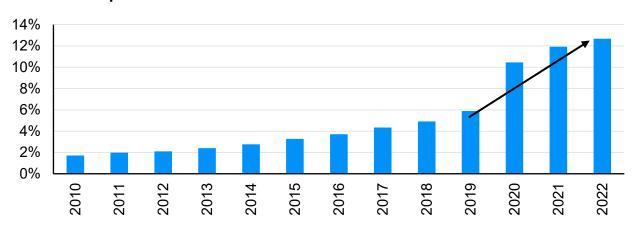
COVID increased e-commerce penetration in Latin America, which had been lagging

Source: Source: Company data, Euromonitor, IBGE, J.P. Morgan Asset Management estimates.

Big three cloud services revenue (USD billions)



E-commerce penetration in Latin America



Pricing: firms that maintained pricing power will retain an advantage

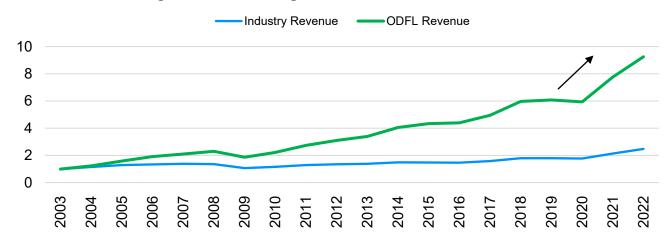
Some firms were able to grow revenue at an accelerated rate

Source: Company filings, Journal of Commerce, J.P. Morgan Asset Management estimates.

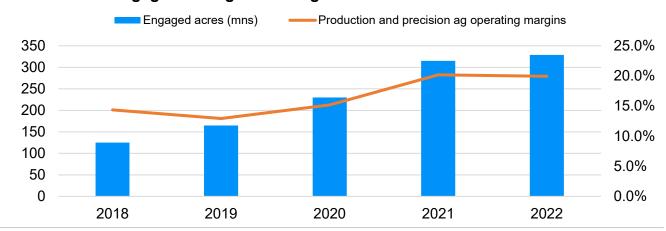
Firms that offer innovative solutions to customers can maintain margins in difficult operating environments

Source: Company filings, J.P. Morgan Asset Management estimates; data as of February 20, 2023.

Old Dominion Freight Line revenue growth

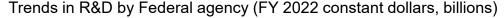


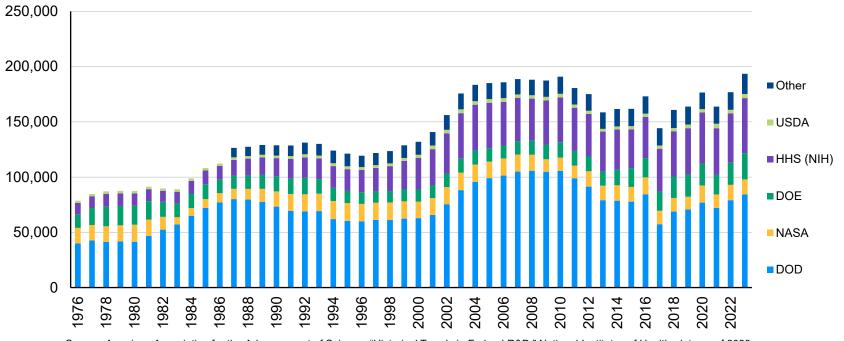
John Deere engaged acreage and margins



Policy: Firms that benefit from government investment will have advantages

Life science companies benefit from research and development spending and streamlined drug approvals





Source: American Association for the Advancement of Science, "Historical Trends in Federal R&D." National Institutes of Health; data as of 2023

Key takeaways and portfolio implications

Technology can help offset aging
populations, declining labor participation
and insufficient migration.

A boost to developed market growth and productivity, with a direct positive impact on providers and effective users of critical technology.

The re-wiring of trade flows will directly benefit regions with closer political and geographic ties to the developed world.

 Key emerging markets in non-China Asia, Latin America and Eastern Europe are poised to benefit directly from near-shoring and friend-shoring away from China.

Resurgent fiscal spending and targeted industrial policy will enhance the prospects of key sectors and firms.

 Investing alongside governments favors energy infrastructure, climate technology, and life sciences – across both public and private markets.

Monetary authorities have the tools to bring inflation down to target, but slower growth will be the result.

 Fixed income investors can begin to return to their natural habitats on the yield curve. Riskier spread sectors will experience volatility but also present opportunities.

The transformation of the urban commuter economy has exposed structural imbalances in real estate.

 Supply-demand imbalances won't self-correct: legacy offices will reprice, repurpose and recapitalize; single family housing and logistics are structurally underbuilt.

For firms, surviving the COVID era was one test; shifting demand and an evolving policy environment will be another.

 The post-COVID economy will tend to favor firms with the "three Ps": positioning advantages, pricing power, and policy support.



Thank you

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