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The Giant Hedge Fund That Hates Risk and Still Wins

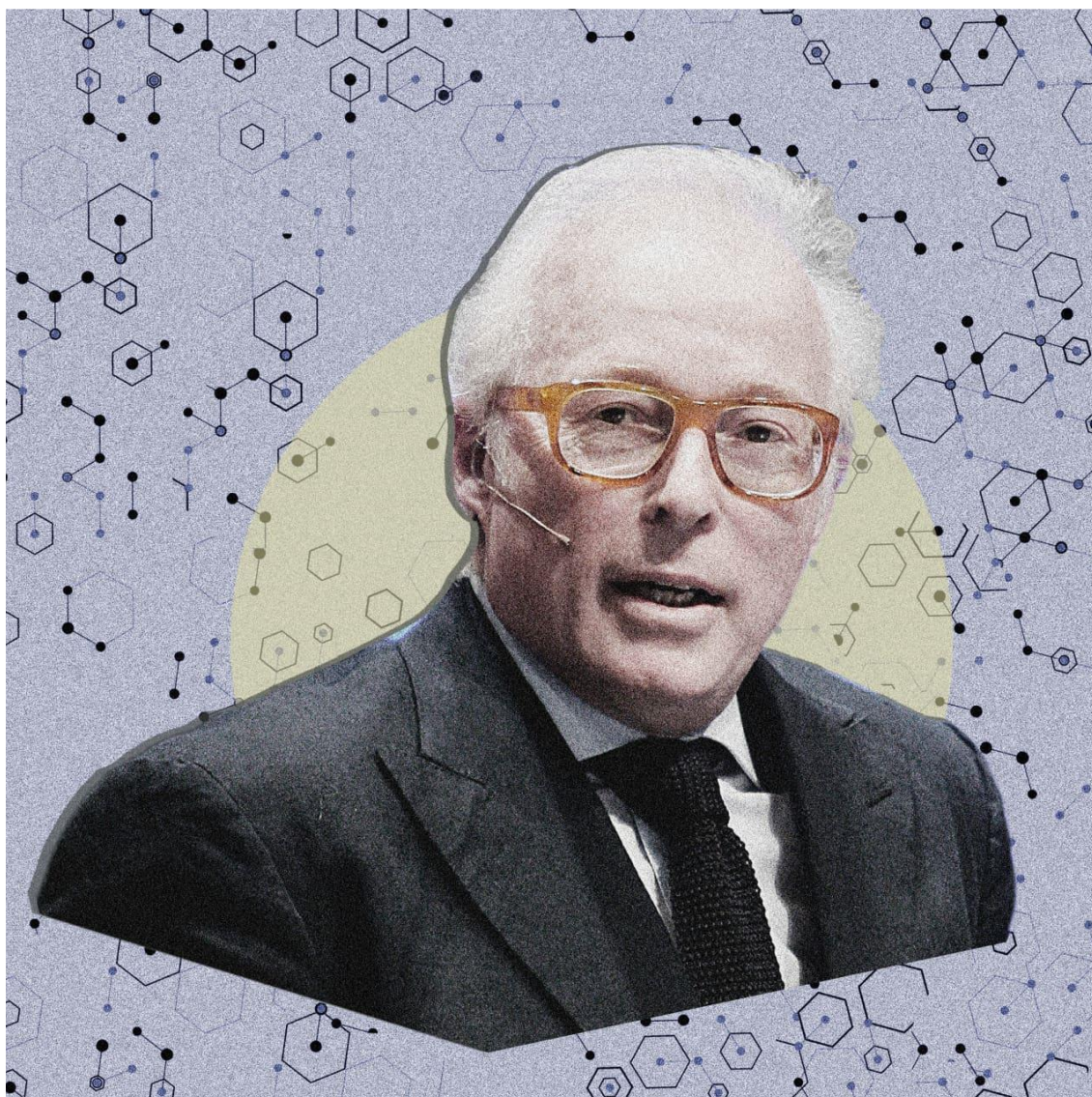
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The Wall Street Journal

29.09.2024

The Giant Hedge Fund That Hates Risk and Still Wins

Millennium's obsession with not losing money has powered \$56 billion in investor gains



The investment pros at one of the world's largest hedge funds, Millennium Management, have a strict rule: Don't lose money.

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The Giant Hedge Fund That Hates Risk and Still Wins

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Millennium parcels out the roughly \$69 billion it manages for clients across more than 2,600 traders, analysts and other investment staffers working on hundreds of teams. Each team operates independently, betting on things like bonds converging or which companies get added to stock-market indexes or the outlook for commodity prices. But all of them face unusually tight limits on risk-taking, according to people familiar with the firm's inner workings.

For example, portfolio managers who are allocated \$1 billion can lose only \$50 million before that buying power will likely be cut in half. If they lose an additional \$25 million, they will likely be fired.

Protecting itself against even modest losses has made Millennium one of the most stable performers in the hedge-fund industry and made Israel "Izzy" Englander, the firm's chief executive, a billionaire. Millennium has generated \$56 billion in gains for investors after fees since the firm's inception in 1989, according to LCH Investments. Among hedge funds, that trails only Citadel.

Millennium has had a single down year, 2008. Over the past five years, it hasn't lost more than 1% in any given month.

That kind of longevity and consistency is rare in the hedge-fund world. Many of the most successful traders historically were defined by their risk appetites and track records that featured home-run returns alongside strikeouts. Nowadays, among investors such as pension plans and charitable foundations, go-for-broke hedge funds are out of fashion while those that reliably generate decent gains are in demand.

It is that type of returns that multimanager firms such as Englander's are designed to deliver. A group of 53 multimanager hedge funds produced annualized gains of 9.9% over the past five years ended in June, outperforming the overall hedge-fund industry, according to Goldman Sachs's prime-brokerage unit. They did it with less than half as much volatility as other hedge funds and nearly no correlation to the broader stock market.

Englander avoids the spotlight that other famous investors relish and rarely speaks about his fund in public. At a closed-door industry conference last year, fellow hedge-fund manager Paul Tudor Jones introduced Englander as one of the best risk-mitigators ever. When Englander plays the board game Risk, where the whole point is world domination, Jones joked that the Millennium executive is instead focused on "world mitigation."

Millennium and other multimanager funds follow a similar playbook to manage risk. They have several investment teams, sometimes called pods, that operate autonomously with different strategies and asset classes, breeding diversification. These firms tend to run market neutral, or have mostly balanced wagers on rising and falling asset prices. The firms monitor teams' exposure to the underlying attributes, or factors, that may be present across different securities.

Firms target a level of volatility that they view as acceptable, often resulting in portfolio managers increasing their positions when markets are tranquil and cutting them in times of trouble. Behind the scenes, risk managers might scale back similar bets that a number of different teams take to ensure they aren't overweight any single position firmwide, usually without the knowledge of those teams.

Where Millennium stands apart is its relatively rigid imposition of so-called stop-losses, or the maximum amount its people can lose before the firm gets involved. A reduction in capital can occur when a portfolio manager is down by 5%. When losses reach 7.5%, that usually means the portfolio manager is out of a job, though Millennium sometimes makes exceptions.



The Giant Hedge Fund That Hates Risk and Still Wins

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Hedge funds track how big their returns are relative to the risk they took to generate them. Since its inception, Millennium scores a 2.6 on this metric, known as the Sharpe ratio. That is more than double the 1.1 that a broad hedge-fund index achieved over the past five years, according to Barclays.

Millennium's portfolio managers can operate under a fear of hitting those stop-losses. Many portfolio managers choose to deploy millions of dollars less than they are allotted so as to give themselves more breathing room for losses.

Millennium's higher turnover also means it constantly needs to find new people to put its money to work. About 15% to 20% of its staff leave each year, and Millennium, like other multimanager firms, offers generous pay packages to new recruits that can reach tens of millions of dollars.

At the conference, Englander cited noncompete agreements at rival hedge funds for the escalating cost of hiring new traders.

As long as their portfolios don't lose money, Millennium gives employees a long leash. The firm can be less prescriptive than rivals when it comes to telling teams which or how many companies they can cover and invest in. Team leaders often give distinct names to the pods they run, as if they managed a stand-alone hedge fund.

That autonomy extends to how often members of investment teams are required to come into the office. One Millennium portfolio manager, Yao King, owns a farm in Pennsylvania and documents on social media his adventures growing garlic, inspecting his barn for leaks and tapping maple trees for sap. A video posted to Millennium's YouTube page splices clips of King splitting wood with others of him in front of a trading terminal.

"Whether it's in farming or in finance, you're constantly trying to consider what risks you're not considering," King said.

How Xi Jinping plans to overtake America

The Economist

31.03.2024

How Xi Jinping plans to overtake America Digital twins, nuclear fusion and the small matter of fixing China's economy



Last year Xi Jinping, China's president, paid a visit to Heilongjiang in the country's north-east. This province, part of the industrial rustbelt, exemplifies the problems besetting China's economy. Its birth rate is the lowest in the country. House prices in its biggest city are falling. The province's gdp grew by only 2.6% in 2023. Worse, its nominal gdp, before adjusting for inflation, barely grew at all, suggesting it is in the grip of deep deflation.

Never fear: Mr Xi has a plan. On his visit, he urged his provincial audience to cultivate "new productive forces". That phrase has since appeared scores of times in state newspapers and at official gatherings. It was highlighted in last month's "two sessions", annual meetings of China's rubber-stamp parliament and its advisory body. In the preface of a new book on the subject, Wang Xianqing of Peking University likens the term to "reform and opening up", the formula that encapsulated China's embrace of market forces after 1978. Those words "shine" even today, he wrote, implying that "new productive forces" will have similar staying power.

What does the phrase mean? Chinese officials are hunting for ways to power the country's economy. For years its productive forces drew on the mobilisation of labour and accumulation of capital. Its workforce grew by 100m people from 1996 to 2015. Its stock of capital rose from 258% of gdp in 2001 to 349% two decades later, according to the Asia Productivity Organisation. After the global financial crisis of 2007-09, capital accumulation often took the form of new property or infrastructure.



How Xi Jinping plans to overtake America

But China's workforce is now shrinking and demand for property has slumped: fewer people are moving to China's cities, speculative gains on real estate are no longer assured and potential homebuyers are reluctant to buy flats in advance in case distressed developers run out of cash before building is complete. The property downturn has hurt consumer confidence and deprived local governments of crucial revenues from land sales. Even after China abandoned its strict covid-19 controls, the economic recovery has been muted and uneven. Spending has not been strong enough to fully employ China's existing productive forces. As a consequence, according to one measure, deflation has persisted for three quarters in a row.

At China's stage of development, economies typically pivot towards services. Yet the government's heart lies elsewhere. The pandemic boosted demand for China's manufactured goods, from surgical masks to exercise bikes. America's export controls on "chokepoint technologies" have created a need for homegrown alternatives, from lithography machines to aviation-grade stainless steel. China's 14th five-year plan, which spans 2021-25, promised to maintain manufacturing's share of gdp, which had declined from almost a third in 2006 to just over a quarter in 2020.

Time for a turnaround

China, manufacturing as % of GDP



In its quest for a sophisticated, but self-contained, manufacturing system, China employs a variety of helpful policies. Its Ministry of Education, for example, recently approved a new undergraduate concentration in high-end semiconductor science and engineering. Spending on more explicit industrial policies, including subsidies, tax breaks and cheap credit, amounted to 1.7% of gdp in 2019, according to the Centre for Strategic and International Studies, a think-tank—more than three times the percentage spent by America.

"What China really wants to be is the leader of the next industrial revolution," says Tilly Zhang of Gavekal Dragonomics, a consultancy.

That will require it to upgrade traditional industries, break foreign strangleholds on existing technologies and forge a new path in industries of tomorrow. Although the central government's ambition is impressive, even unsettling, it cannot succeed without the help of local governments, which are short of cash, and private entrepreneurs, who are short of confidence. As such, the new slogan may betray a damaging hyperopia—long-sightedness that is blinding the leadership to more immediate economic concerns.

The owl spreads its wings

To Barry Naughton of the University of California, San Diego, who confesses to reading some Hegel in his younger days, the phrase "new productive forces" evokes the "dialectical" idea that an accumulation of quantitative changes can result in a qualitative break or sudden leap, as Hegel put it, much like when an incremental increase in temperature turns water into steam. Marx, meanwhile, noted that when new productive forces achieve sufficient weight in the economy, they have the capacity to remake the social order: "The handmill gives you society with the feudal lord," he wrote, "the steam-mill, society with the industrial capitalist." New productive forces, then, can be a big deal.



How Xi Jinping plans to overtake America

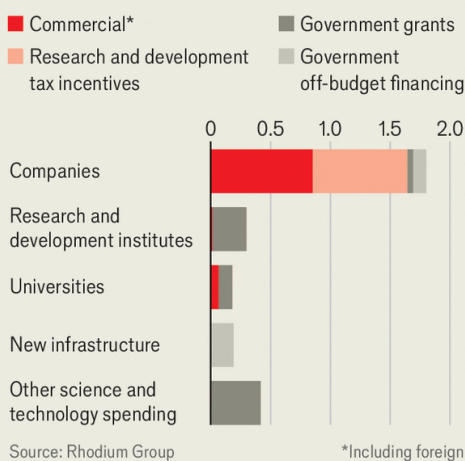
In presenting the concept, Mr Xi has said that the test for new productive forces will be improvements in “total factor productivity”, a term lifted not from Marx, but from mainstream economics. It refers to increases in output that cannot be attributed to increases in measurable inputs, such as physical and human capital. In mixing Marxist and neoclassical concepts, new productive forces are a “strange hybrid beast”, says Mr Naughton.

According to Mr Xi, the new productive forces will flow from the application of science and technology to production. The phrase is a signal that China’s technology push should be even more ambitious than it is today, and more tightly integrated into economic production. China’s leaders have promised a “whole of nation” effort to boost technological self-reliance. The central government’s budget, unveiled in March, increased annual spending on science and technology by 10%, the largest percentage increase of any division. Frugal innovation, this is not.

Nor is it China’s first assault on the problem. In 2006 a 15-year plan set national targets to raise research-and-development (r&d) spending, reduce dependence on foreign technology and increase technology’s contribution to growth. It also identified 16 “megaprojects”, such as building China’s own large passenger aircraft and landing a probe on the moon. These were largely attempts to replicate existing technologies. In 2010, after the global financial crisis, China changed tack, lavishing some of its heavy stimulus on a variety of “strategic emerging industries”, including new kinds of information technology, renewable energy and electric vehicles (evs)—many of which were still embryonic.

A lot of moonshots

China, sources of science and technology funding, 2020, yuan trn



Six years later, China shifted emphasis again. Its “innovation-driven development strategy” expressed faith that the world was in the midst of an industrial revolution. Advances in digital technologies, the internet of things, green tech and artificial intelligence (ai) promised breakthroughs across the economy. Rather than pick a miscellany of emerging industries, China’s new strategy emphasised this cluster of mutually reinforcing technologies. China aimed to become a “world power” in innovation by the middle of this century. By 2020 it was spending almost 2.9trn yuan (\$420bn, or 2.8% of gdp) on science and technology, according to Rhodium Group, a consultancy. The government’s contribution exceeded 60% if generous tax breaks are included. Of the recipients, a sixth ended up with universities or research institutes. Roughly 60% flowed to companies.

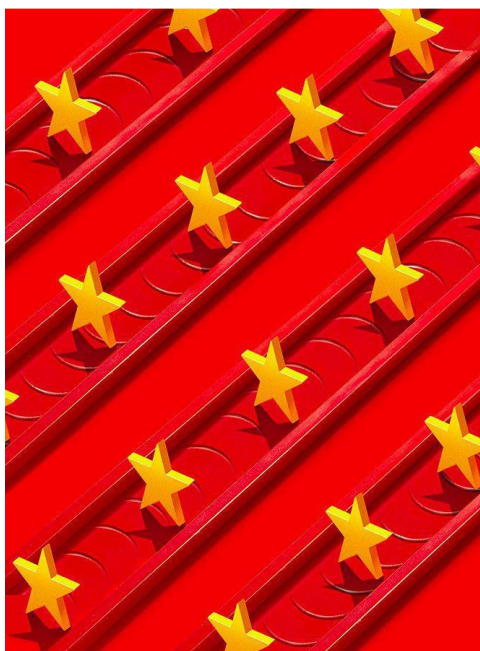
Mr Naughton has called China’s innovation strategy “the greatest single commitment of government resources to an industrial-policy objective in history”. What does the country have to show for it? The results have so far been better than any middle-income country could expect. But they are not quite as impressive as China’s leaders might have hoped.

In e-commerce, fintech, high-speed trains and renewable energy, China is at or near the frontier. The same is strikingly apparent in evs, where success helped China last year to become the world’s biggest exporter of cars. In a list of 64 “critical” technologies identified by the Australian Policy Research Institute, a think-tank, China leads the world in all but 11, based on its share of the most influential papers in the fields.

How Xi Jinping plans to overtake America

The country is number one in 5g and 6g communications, as well as biomanufacturing, nanomanufacturing and additive manufacturing. It is also out in front in drones, radar, robotics and sonar, as well as post-quantum cryptography.

In addition, China has made good progress in measures of a country's innovation "ecosystem". The Global Innovation Index, published by the World Intellectual Property Organisation, combines about 80 indicators, spanning infrastructure, regulations and market conditions, as well as research effort, patent awards and citation counts. A middle-income country with China's gdp per person would expect to rank in the 60s. China ranks 12th.



The economic impact of these achievements is harder to measure. China's list of "strategic emerging industries" has kept evolving since its introduction in 2010, making it tough to track progress. Two members of China's National Bureau of Statistics once lamented that the criteria for inclusion, especially at the level of products, are "vague". How to know if a boiler counts as "energy saving" or a composite material counts as "high performing"? Nonetheless, China's statisticians estimate that strategic emerging industries accounted for 13.4% of gdp in 2021, up from 7.6% in 2014 but below the original target for 2020 of 15%. By comparison, the value added by property building and services (ignoring upstream links to steel, iron-ore and other such industries) was about 12%.

Although these gains are impressive, China's leaders are not content.

They have been alarmed both by America's technological embargoes and its recent technological triumphs. Sweeping export controls on the sale of chips and chipmaking equipment have revealed China's dependence on foreign components, software and equipment. America's advances in ai have also prompted reflection. ai was an industry in which China thought it had an edge. The country's leaders were shocked by the arrival in 2022 of Chatgpt, a large language model developed by Openai.

China's progress has also been hurt by its own leaders. They cracked down on many of the country's most advanced tech firms in 2021, accusing them of mishandling data, thwarting competition and exploiting gig workers. This regulatory storm targeted consumer-facing "platform" companies, such as Alibaba and Meituan, rather than advanced manufacturers or other firms in "hard tech". However, the damage to investor confidence was hard to contain. The disfavoured platform companies, with their huge troves of data, are also big investors in many frontier technologies, such as ai, which China's leaders are keen to foster. The country's large internet firms cut their r&d spending by almost 7% in the first half of 2023, compared with a year earlier, according to Rhodium.

Scientific socialism

Total-factor productivity growth—Mr Xi's preferred test of new productive force—has also slowed. The tech programme China introduced in 2006 implied that its contribution to growth should rise to 60%.

How Xi Jinping plans to overtake America

Instead, it has fallen to less than a third, according to Louis Kuijs of s&p Global Ratings, a credit-rating agency. China is thus suffering from its own version of the “Solow paradox”: you can see a new technological age everywhere but in the productivity statistics. These setbacks and shortcomings may explain the perceived need for a fresh slogan to shake things up.

Big bucks, bigger bang

2023 or latest available

Innovation performance given income level

● Above expectations
● Below expectations

Global innovation index score, maximum=100

Population, bn

1.5
0.5

GDP per person at PPP*, natural log

Source: Global Innovation Index, 2023 *Purchasing-power parity

The country’s innovation push now seems split into three. First, it seeks to replicate “chokehold” technologies. A second goal is to invent technologies the rest of the world is yet to create. In January government ministries issued a list of “future industries”, many of which are even more pathbreaking than the strategic emerging industries of the past. They include photonic computing, brain-computer interfaces, nuclear fusion and digital twins—simulacra of patients that doctors can monitor for illnesses that might arise in their real-life counterparts. The government is encouraging laboratories and research institutes to spend more than half of their basic funding on scientists under 35 years of age, in the belief they are more likely to make the breakthroughs the country needs.

These moonshots could be seen as a folly China can ill afford—a distraction from the dogged pursuit of self-reliance, which requires homegrown versions of technologies that China can no longer count on importing from abroad. But according to Ms Zhang of Gavekal, China’s leaders hope that futuristic industries will contribute indirectly to the country’s technological sovereignty by giving it “bargaining chips” in the tech battles ahead. If America threatens to cut off China’s access to a vital input, China can retaliate in kind.

Chinese commentators often talk about “overtaking at the curve”. China’s success in evs, after its longstanding failure to displace incumbent makers of traditional vehicles, demonstrates that it can sometimes be easier to make advances in fields that are not already occupied by well-entrenched incumbents. According to Jie Mao of the University of International Business and Economics in Beijing and his co-authors, China’s science-and-technology policies from 2000 to 2012 boosted productivity most in industries in ferment, rather than in those that had reached maturity either at home or abroad. In fighting a guerrilla war, Mao Zedong famously believed in occupying the countryside before advancing on the cities. In the same way, China may be marching into wilder and woollier areas of technological discovery, where its long-entrenched adversaries have a smaller advantage.

A third objective is to upgrade existing industries. “Even the most traditional agriculture can form new productive forces,” Wang Yong of Peking University has argued, so long as it employs revolutionary technologies. He cites automated planting or selective breeding using big data. At the two sessions, the annual meetings of China’s parliament and its advisory body, a delegate from a prominent state-owned distillery even argued that the new productive forces can be found in hard spirits.

The pursuit of these goals will be expensive. One lesson of the past decade is that lots of money cannot guarantee a Hegelian transformation of production. But a lack of spending will surely preclude one.



How Xi Jinping plans to overtake America

The Economist

It must therefore worry China's leaders that local governments' budgets are stretched and animal spirits are low. In the past, much of the money for China's tech push has come from local-government funds that raise money from land sales and "special bonds". Their revenues fell by more than a fifth from 2020 to 2023.

When the economy is booming and local authorities are flush, they are at liberty to invest in ventures that may not pay off for five or ten years, points out Matt Sheehan of the Carnegie Endowment for International Peace, a think-tank. In 2010, for example, growth was rebounding and stimulus money could flood into evs, solar panels and other evolving technologies. But for local governments in today's more straitened times, "firefighting is going to end up overwhelming attempts to think long term", he says. Firms will be urged to invest in projects with short-term payoffs. They may also be pestered and harassed for taxes and fees to help their provincial or municipal patron balance its books.

At this year's two sessions, Li Qiang, China's prime minister, set out the country's "major tasks" for the year ahead. First on Mr Li's list was "to modernise the industrial system" and develop "new quality productive forces". Expanding domestic demand, which is necessary to dispel deflation, ranked only third. If the mood and markets do not revive, local governments will struggle to refill their coffers and private investment may fall short. Mr Xi is determined to reinvent China's economy. To do so, he needs to reinflate it first.

The American economy has left other rich countries...

The Economist

14.10.2024

The American economy has left other rich countries in the dust Expect that to continue



“ON PRESENT policies and performance, the United States is condemned to slower growth than the other main industrial countries for the foreseeable future.” So declared the Competitiveness Policy Council, a committee advising America’s president and Congress, in 1992, a time when America was gripped by concerns that its economy was declining and losing ground to Japan and Europe. The opposite turned out to be true. Japan entered a long period of stagnation, Europe’s growth fizzled and America experienced a mini-boom, fuelled by the rise of the internet.

More than three decades later, some are again painting pictures of an American economy heading towards decline. China is now the rising juggernaut in the East. Donald Trump, instead of Bill Clinton, is the candidate for president lamenting the state of the economy (Mr Trump says it is “failing”, where Mr Clinton called it an “unpleasant economy stuck somewhere between Germany and Sri Lanka”). Ordinary Americans are anxious. Gallup, a polling firm, regularly asks Americans if they are satisfied with how things are going. From 1980 until the early 2000s, a little more than 40%, on average, said they were. Over the past two decades that has dropped to 25%.

Are the prophets of decline onto something this time? Since the rollicking 1990s the American economy has suffered occasional upheavals, including the dot-com bust, the global financial crisis, a spike in unemployment during the covid-19 pandemic and, most recently, a surge in inflation. In purchasing-power-parity (PPP) terms America’s share of the global economy has indeed shrunk, from 21% in 1990 to 16% now.

The Economist



The American economy has left other rich countries...

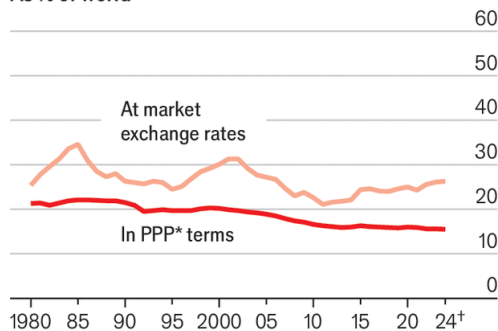
America's outperformance has accelerated recently

But one thing has been consistent since the early 1990s: America has grown faster than other big rich countries, and it has rebounded more strongly from bumps along the way. The faulty diagnosis of the competitiveness council back in 1992 should stand as a corrective for those now peddling gloom. America's growth since then has been best-in-class, and its strengths today give grounds for optimism about the country's economic power and potential. That America's share of global GDP in PPP terms has decreased is less a comment on its own trajectory than on the growth spurts of the two most populous countries, China and India. China's output per person remains less than a third of America's; India's is smaller still.

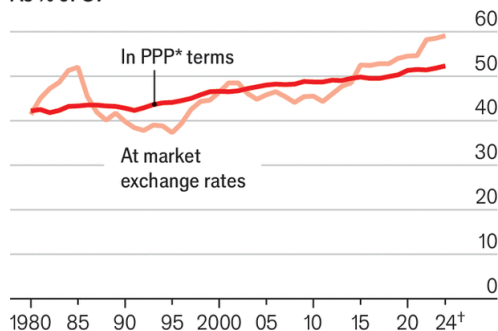
The wealthiest of nations

US GDP

As % of world



As % of G7



Source: IMF

*Purchasing-power parity [†]Forecast

Even more striking is how America has outperformed its peers among the mature economies. In 1990 America accounted for about two-fifths of the overall GDP of the G7 group of advanced countries; today it is up to about half (see chart). On a per-person basis, American economic output is now about 40% higher than in western Europe and Canada, and 60% higher than in Japan—roughly twice as large as the gaps between them in 1990. Average wages in America's poorest state, Mississippi, are higher than the averages in Britain, Canada and Germany.

And America's outperformance has accelerated recently. Since the start of 2020, just before the covid-19 pandemic, America's real growth has been 10%, three times the average for the rest of the G7 countries. Among the G20 group, which includes large emerging markets, America is the only one whose output and employment are above pre-pandemic expectations, according to the International Monetary Fund.

Coupling this growth with the dollar's strength translates into heft for America and wealth for Americans. That can be seen in the huge numbers of Americans travelling and spending record sums overseas.

A decade ago (as Chinese travellers too were demonstrating their wealth) many analysts thought that China would, by now, have overtaken America as the world's biggest economy at current exchange rates. Instead its GDP has been slipping of late, from about 75% of America's in 2021 to 65% now.

Endowed with gifts

This special report will explain why American growth has been so strong for so long, and why it can be expected to continue. Some of the reasons are down to the good fortune bestowed by geography. As a quasi-continental economy with a giant consumer market, American companies benefit from scale: a good idea hatched in California or product built in Michigan can, in short order, spread to 49 other states.



The American economy has left other rich countries...

The Economist

America also has a big, well-integrated labour market, allowing people to move to better-paying jobs and drawing workers to more productive sectors. A long, porous southern border may be politically contentious but it has been an economic tailwind, allowing the labour force to steadily grow and helping to fill the hard, dirty jobs that many native-born Americans have no interest in doing. And as important as the size of the country is what lies beneath it. Over the past two decades the improvements in techniques for extracting hydrocarbons from once-unpliant shale rocks have turned America into the world's biggest producer of oil and gas.

The American economy also has particular strong points which have bred more strength. Possessing the world's deepest financial markets has made it easier for startups to raise equity, a better way to get off the ground than borrowing cash. The plethora of exciting young companies in America has, in turn, boosted the attractiveness of its markets. Similarly, having the world's dominant currency has made global commerce more frictionless for American business. And America has the world's best universities, which remain so in part by attracting the world's best students.

The visible hand

Other policy choices have helped. America has a more relaxed approach to business regulation than many other countries. That has given high-tech companies room to play and grow. It also enabled the experimentation which led to the shale revolution. But America's success is not just a story of small government. Officials have made bold, resolute interventions during crises (including ones that, in fairness, were abetted or exacerbated by lax regulation to begin with). After a shaky start, America delivered a strong response to the global financial crisis of 2007-09, acting decisively to clean up bank balance-sheets, and making aggressive use of monetary policy to support growth. The government's response to the covid slowdown was yet more extraordinary, with a suite of fiscal stimulus packages that left other countries in the dust. Indeed, officials overdid it in their pursuit of a recovery, contributing to the global rise in inflation. But it is impossible to explain America's mighty economic engine without acknowledging the government's willingness to step on the accelerator pedal when it has sputtered.

For all of America's prowess, it has plenty of maladies. A fundamental test of any country's governance is whether its people live good, long lives. On this count America is wanting. In 2023 the life expectancy for a newborn American was 79, three years shorter than the average in western Europe, according to UN projections. That startling gap was virtually nonexistent in 1980. This is largely a reflection of fewer Americans reaching their dotage owing to obesity and to particularly acute American problems like opioids, guns and unsafe roads. But older Americans fare badly in relative terms, too. In 2023 in America the average 60-year-old was projected to live another 24 years, nearly one year shorter than in Europe. In 1980 the reverse was true; older Americans were projected to outlive their European peers by almost a year.

Many critics of America's economic model contend that it is intrinsically flawed, beset by extreme inequality and ever-more dominant companies crushing competitors. But these are exaggerations. There may be scope for a fairer distribution of the country's wealth without undermining America's growth, but the widely held belief that the top 1% are taking it all is overdone. As for tech behemoths such as Apple and Amazon, their potential for dominance must be watched and, if necessary, curtailed, but it is also true that they have generated incredible value in daily life and shaken up stodgy industries. And they face fierce competition to stay on top. They stand as evidence more of America's economic success than of its problems.

In the history of modern economics America's three-decade outperformance is remarkable. Can it continue? Throughout this report we will consider reasons for pessimism, from poisonous politics to fiscal frailties. Set against these is a relentless dynamism, the essential characteristic of the American economy and the ultimate force propelling it forward.