The Economist

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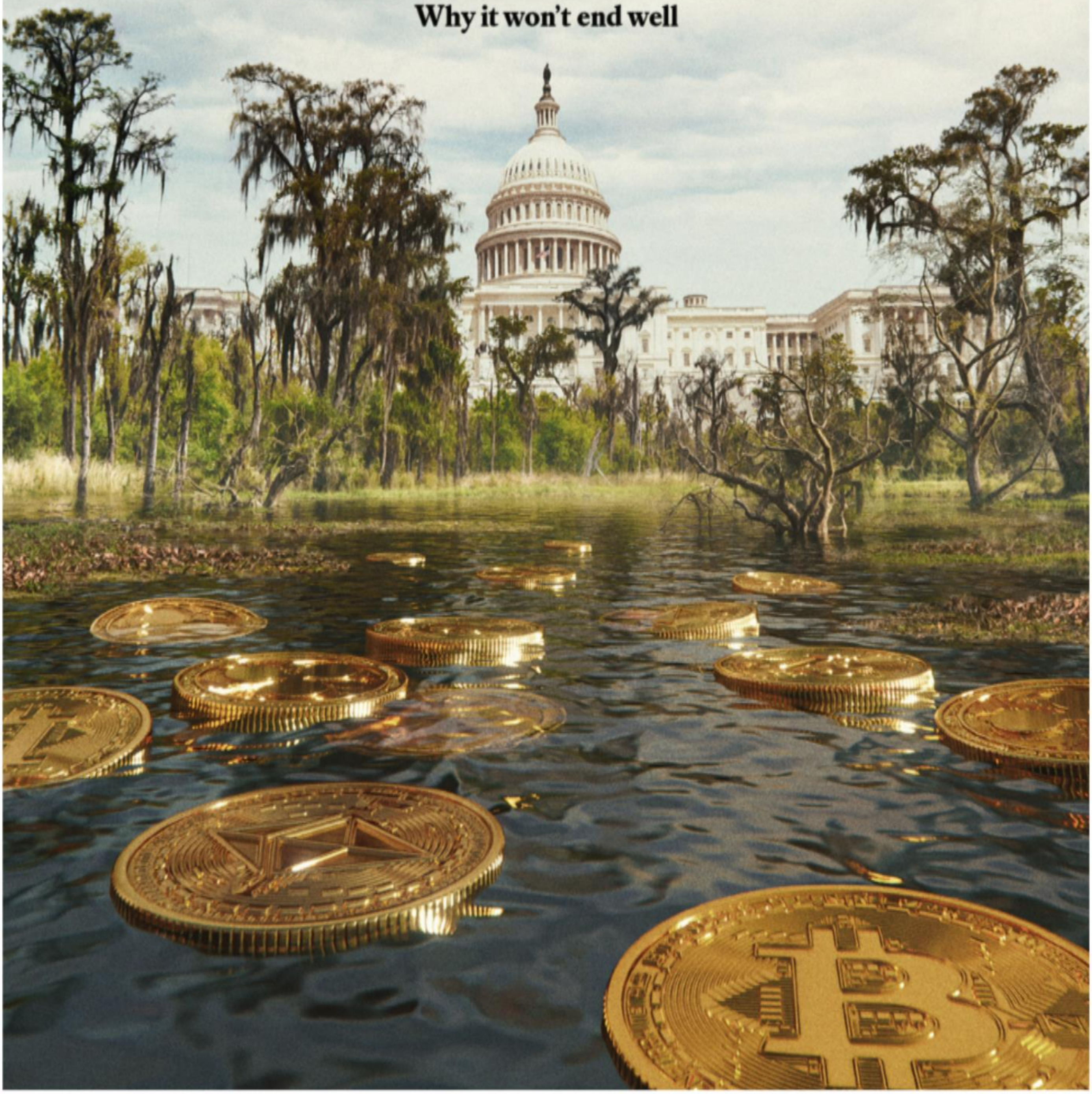
MAY 17TH–23RD 2025

Crypto meets the swamp

Why it won't end well



Business

Photograph: AP

Following a round of talks in Geneva, America and China agreed to pull back from their trade war and slash tariffs, for 90 days at least. Donald Trump said some of the duties could be reimposed if no progress was made in further negotiations, but at probably a far lower rate than the 145% tariff America ended up levying on Chinese goods. Scott Bessent, the treasury secretary, said America would now aim for a strategic, and not a general, decoupling from Chinese trade. In another sign of a thaw in the trade war, China reportedly lifted its ban on Chinese airlines taking delivery of Boeing aircraft.

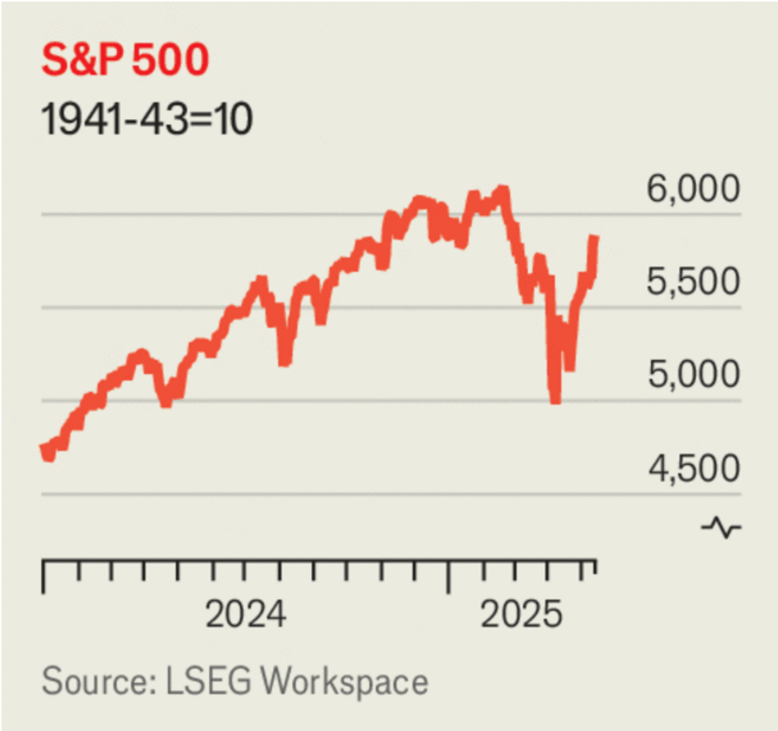


Chart: The Economist

Stockmarkets surged in response to the rapprochement on trade. The S&P 500 erased its losses for the year, though is still below its February peak. The NASDAQ Composite and Dow Jones Industrial Average weren't far behind. The gains were led by chipmakers such as Nvidia and AMD, and Tesla, which saw its market capitalisation climb above $1trn again.

Before the breakthrough in Geneva America struck a trade deal with Britain, the first in a line of countries that Mr Trump says are eager to come to reciprocal agreements. The deal, covering mostly cars and beef, was comparatively small potatoes in the wider trade war. The bulk of trade between the two countries is in services, which are not subject to tariffs.

The American government's receipts from customs duties hit a record $16.3bn in April, over double the $7.1bn that was collected in April 2024.

Honda and Nissan both tore up their annual profit forecasts because of the hits they expect to take from tariffs. The Japanese carmakers have factories in America but also produce vehicles in Mexico to sell in the US. Nissan's troubles pre-date the imposition of the levies. It is restructuring its business, and this week announced that it would cut 20,000 jobs, 15% of its global workforce, and close seven of its 17 plants.

The perils of predictions

Foxconn lowered its outlook for the year, in part because of uncertainties in trade but also because of currency fluctuations. The contract manufacturer, best known for assembling the iPhone in China, is building a factory in Mexico to produce Nvidia's GB200, which brings together several processing units in one superchip.

Mr Trump's trade duties have not caused America's inflation rate to jump, so far at least. The latest figures showed annual inflation slowing to 2.3% in April from 2.4% in March. Month-on-month consumer prices rose by 0.2%. Economists think tariffs will eventually cause inflation to spike in the coming months.

Britain's economy grew by 0.7% in the first quarter of the year, compared with the previous three months, slightly more than markets expected.

The pharmaceutical industry found itself caught in Mr Trump's cross-hairs, when he signed an executive order that would force companies to lower the price of their drugs to align with those in other countries. The president is seeking price reductions of between 59% and 90%, and is threatening to take action if the industry doesn't comply. But the order is fraught with difficulties, including the fact that generic drugs, which account for most American prescriptions, are far cheaper in America than in other rich countries.

Deep pockets of the state

Mr Trump's trip to the Middle East saw a raft of trade deals, including $142bn in defence equipment to Saudi Arabia that America described as the largest such pact in history. Qatar agreed to buy up to 210 Boeing aircraft. And the United Arab Emirates, already a global hub for artificial intelligence, hoped to strike deals to import advanced chips. Meanwhile, Saudi Arabia announced the creation of a new state-backed company to develop AI infrastructure and data centres. Humain will own AI assets as well as invest in them, with a focus on large language models based in Arabic. Nvidia and AMD will supply it with state-of-the art chips.

As the Gulf states increase their public investments in AI, SoftBank, by contrast, denied reports that it is hesitating over its commitments to the technology because of market uncertainty. The Japanese tech conglomerate's chief financial officer said it was "very much making progress" in choosing data centres for Stargate, America's vast AI project, in which SoftBank is a major investor. SoftBank made its first annual profit in four years for the 12 months ending March, helped by the performance of its telecoms companies. Its Vision Fund 1, which houses investments in firms such as ByteDance, made a gain, but its Vision Fund 2, which invests in more recent startups, booked a loss.

CATL, based in China and the world's largest producer of batteries for electric vehicles, hopes to raise $4.6bn from its forthcoming secondary listing, which would make it the world's biggest stock offering so far this year. The shares are due to start trading in Hong Kong on May 20th.

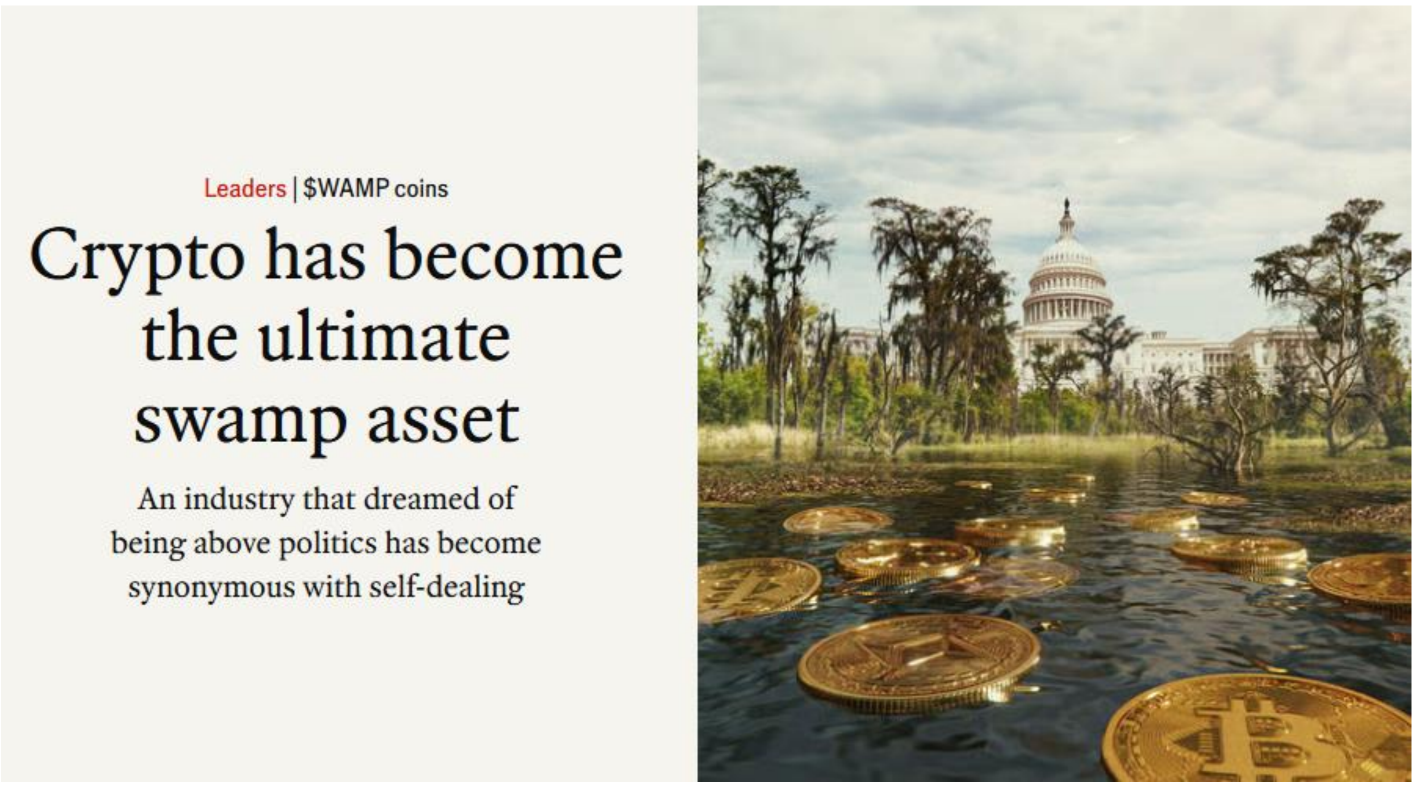


Image: Peter Crowther/Getty Images

WHEN OFFERED a Boeing 747 by the government of Qatar to replace Air Force One, President Donald Trump responded: why not? Only someone dumb would turn down free money. No presidency has generated so many conflicts of interest at such speed in modern history. Yet the worst self-dealing in American politics is found not on a runway but on blockchains, home to trillions of dollars in cryptocurrencies.

Over the past six months crypto has taken on a new role at the centre of American public life. Several cabinet officials have large investments in digital assets. Crypto enthusiasts help run regulatory agencies. The industry's largest businesses are among the biggest donors to election campaigns, with exchanges and issuers deploying hundreds of millions to defend friendly legislators and to crush their opponents. The president's sons tout their crypto ventures around the world. The biggest investors in Mr Trump's meme coin get to have dinner with the president. The holdings of the first family are now worth billions, making crypto possibly the largest single source of its wealth.

This is ironic, given crypto's origins. When bitcoin was started in 2009, a utopian, anti-authoritarian movement welcomed it. Crypto's earliest adopters had lofty goals about revolutionising finance and defending individuals against expropriation and inflation. They wanted to hand power to small investors, who would otherwise be at the mercy of giant financial institutions. This was more than an asset: it was technology as liberation.

That is all forgotten now. Crypto has not just facilitated fraud, money-laundering and other flavours of financial crime on a gargantuan scale. The industry has also developed a grubby relationship with the executive branch of America's government that outstrips that of Wall Street or any other industry. Crypto has become the ultimate swamp asset.

The contrast with what is happening outside America is striking. Jurisdictions as varied as the European Union, Japan, Singapore, Switzerland and the United Arab Emirates have managed to give digital assets new regulatory clarity in recent years. They have done so without the same rampant conflicts of interest. In parts of the developing world, where expropriation by governments is rife, inflation is highest and the debasement of currencies is a real risk, crypto still fulfils something like the role that the early idealists once hoped it would.

All this is happening as the underlying technology of digital assets is coming into its own. There is still plenty of speculation. But crypto is slowly being taken more seriously by mainstream financial firms and tech companies. The amount of real-world assets, including private credit, US Treasury bonds and commodities, which have been "tokenised" to be traded on a blockchain has almost tripled over the past 18 months. Vanilla financial institutions like BlackRock and Franklin Templeton are large issuers of tokenised money-market funds. Crypto firms have become involved, offering tokens pegged to assets such as gold.

Illustration: Mona Eing & Michael Meissner

Perhaps the most promising use is by payments firms. Some are embracing stablecoins (digital tokens backed by other, more conventional assets). In the past month alone, Mastercard has said it will allow customers and merchants to pay and settle transactions in stablecoins. Stripe, a fintech firm, has launched stablecoin financial accounts in 101 countries. Stripe also bought Bridge, a stablecoin platform, this year. Three years after scrapping its Diem project, Meta may dip its toe in the water again.

This is an opportunity that crypto firms risk blowing. Boosters argue that they had no alternative but to fight dirty in America when Joe Biden was in the White House. Under Gary Gensler's leadership, the Securities and Exchange Commission took a dim view of the sector, enmeshing many of its most prominent firms in enforcement actions and legal cases. Banks were scared away from offering services to crypto firms and from dabbling in crypto, especially with stablecoins. In that sense the industry has a point. Clarifying the legal status of crypto through the courts, rather than through Congress, was neither particularly effective, nor always fair. The regulatory pendulum has now swung hard in the opposite direction, and most of the cases against crypto firms have been abandoned.

The result is that crypto needs saving from itself in America. New rules are still needed to ensure that risks are not injected into the financial system. If politicians, scared of the industry's electoral power, fail to regulate crypto properly, the long-term consequences will be harmful. The danger of putting too few guardrails in place is not just theoretical. Three of the largest banks which collapsed in 2023, Silvergate, Signature and Silicon Valley Bank, all had large exposures to the crypto industry's flighty deposits. Stablecoins can be vulnerable to runs and should be regulated like banks.

Without such changes, the leading lights in crypto land will come to regret the bargains struck in Washington. The industry is largely silent about the florid conflicts of interest generated by the Trump family's crypto investments. Legislation is needed to clarify the status of the industry and the assets, to give the regulatory security the more sensible crypto firms have long hoped for. The blending of the president's commercial interests and the business of government is already making that harder. A crypto bill in the Senate failed to advance on a procedural vote on May 8th after many Democratic senators withdrew their support, along with three Republicans.

Me, me, meme

No industry that becomes so associated with one party can be immune to the mood swings of the American electorate. In hailing Mr Trump as a saviour, and becoming the favoured swamp asset, the industry has picked a side. Crypto has a new role at the policymaking table. But the industry's reputation and fate are now tied to the ups and downs of its political benefactor. Crypto has been good to the Trumps. But ultimately the benefits of this deal will flow only one way.

Finance & economics
Why the MAGA economy is thriving

The world’s largest market is becoming two

Photograph: Bruce Gilden/Magnum Photos

Imagine the perfect morning. After sleeping between sheets from MyPillow—a company established by Mike Lindell, a conspiracy theorist—you drink some Black Rifle Coffee, which “serves coffee and culture to people who love America”. You shave with Jeremy’s Razors (“built for rugged jawlines....not feelings”). Then you eat some bacon from Good Ranchers, which pledges to “make the American farm strong again”, before going for a spin on your Harley-Davidson.

The broader MAGA universe extends beyond goods with over-the-top marketing to products and employers merely favoured by Republicans. And each economic choice adds up to something bigger. According to our analysis, America is splitting into two different economies and markets: one conservative, the other liberal. People on each side think about the economy differently; they buy different things and work in increasingly different industries. Not only that, the MAGA economy is doing surprisingly well.

American liberals tend to look down on companies that market themselves to conservatives. Although this is in part because they do not like the opposing side, some MAGA products seem like scams. President Donald Trump's crypto coin soared following its launch, only to crash quickly and leave many supporters holding the bag. His branded watches, including the "Fight Fight Fight" model, cost up to $100,000 and have received mixed reviews.

Such snobbery also reflects a belief that the conservative economy is backward. Hillary Clinton, the Democratic presidential nominee in 2016, noted that she had "won the places that represent two-thirds of America's gross domestic product...the places that are optimistic, diverse, dynamic, moving forward". Kamala Harris, the nominee in 2024, won a similar share of America's GDP. Of course, some solidly Republican districts have long been rich. In Jupiter, a town in Florida, activities include playing golf and wearing white chinos. Yet Yuba City, in northern California, where lots of locals are farmers and people voted strongly for Mr Trump, may be more illustrative of MAGA-land. Incomes are low; shops sell hardware, guns and fast food. There are no chinos in sight.

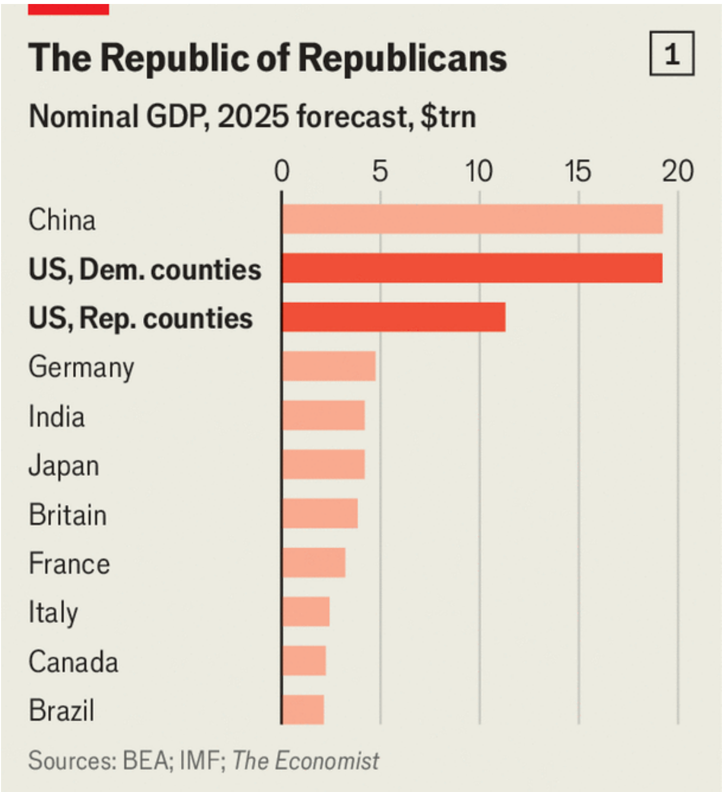


Chart: The Economist

Despite this, the association of Republicanism with backwardness is at odds with the data. Even places like Yuba City are doing better than before and together MAga-land is enormously powerful. If Democrats have two-thirds of American GDP, that still leaves Republicans with around $10trn—making them the world's third-largest economy (see chart 1). As anyone who has watched "Friday Night Lights" will know, all parts of America have big spenders. Buddy Garrity, a car dealer, is the archetypal MAGA rich guy. He is not wealthy enough to own a private jet or plugged-in enough to attend the Met Gala; still, he has plenty in the bank.

The growing gap between the MAGA and Democratic economies can be seen in both "soft" and "hard" data. Surveys suggest that Democrats and Republicans now live in separate realities. Before the presidential election 50% of Democrats believed that the economy was getting better, against just 6% of Republicans. Today 8% of Democrats and 49% of Republicans respond in the same way. Such partisanship has become more pronounced. Look, for instance, at the gap in inflation expectations by party, as shown in chart 2.

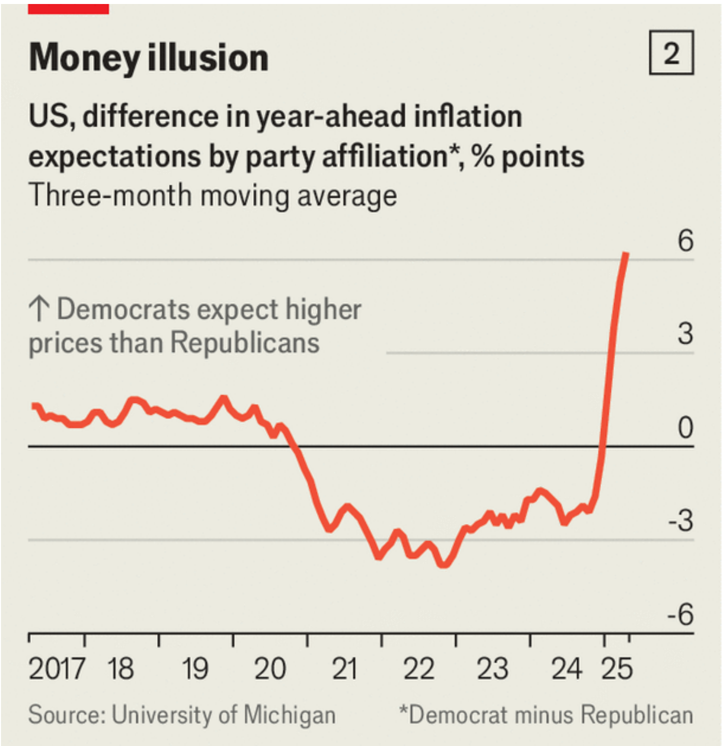


Chart: The Economist

Hard data tell a similar story. According to a recent paper by Verena Schoenmueller of Esade University and co-authors, residents in each economy consume in increasingly different ways. After Mr Trump's victory in 2016, liberals faced a threat to their identity, "which they possibly compensated for by stronger support for liberal-oriented brands"—buying more Patagonia fleeces, perhaps. Tesla shows the power of partisanship better than any other company. TD Cowen, an investment bank, forecasts that Elon Musk's alliance with Mr Trump will reduce sales by more than 100,000 vehicles a year in Democratic-leaning counties, while boosting sales by twice as much in Republican ones.

Official data also suggest that consumer tastes are splitting along partisan lines. Compare New York, a blue state, with Wyoming, a red one. Since the 1990s blue people have spent more on stereotypical blue goods and services, and red people more on red. New Yorkers have splurged on dining out. They have also jacked up spending on public transport. People in the Equality State, by contrast, spend more than they did on things you might associate with an older, more conservative population, such as vehicle parts and nursing homes.

It is not just consumption. MAGA and blue economies are behaving increasingly differently, too. They reacted in different ways to the first wave of covid-19. Economic activity in red states, where locals were not so afraid of the virus, fell by half as much as in blue ones. This divergence was the culmination of a long-term trend. The variance in the GDP-growth rates of Democratic and Republican counties widened sharply around 2008. It has remained about twice as high ever since. In the olden days, when a red place was doing well, you could be pretty sure that a blue place would also be thriving. No longer.

The two economies are separating in part because their industrial compositions are changing. We have analysed data on work and pay across counties. Over time, places that voted Democratic in 2024 have taken a greater share of knowledge-intensive forms of economic activity. In 1993 roughly the same share of employee compensation came from the "information" sector, comprising software and the like, in Republican counties as elsewhere. Now the share is 30% lower than average, while dependence on manufacturing has risen. All told, employment patterns in the Democratic and Republican economies have diverged by 20%, as measured by the difference between "location quotients", a gauge of job dispersion by industry.

Buddy up

Nevertheless, there are more Buddy Garritys today. In 2024, 47% of Americans reporting annual incomes above $1m lived in Trump-voting states, up from 43% in 2014. Incomes among poorer folk are rising, too. Population growth is strong. And the MAGA economy has lots of big businesses that liberals rarely encounter. Yuba City is home to WinCo, which feels like a knock-off Costco, and Boot

Barn, which sells cowboy boots. Fox News's viewers are on the poorer side, yet over the past year the firm's share price has been on a tear.

Olive Garden, an Italian-restaurant chain, is another example in Yuba City. According to a YouGov poll in 2023-24, it is the dining option second most favoured by Republicans, relative to Democrats, behind Cracker Barrel, which offers wooden rocking chairs and Southern cuisine. Although the pasta at Olive Garden may not be fatta in casa, it is popular. The share price of Darden, which runs the chain, has nearly tripled in the past five years.

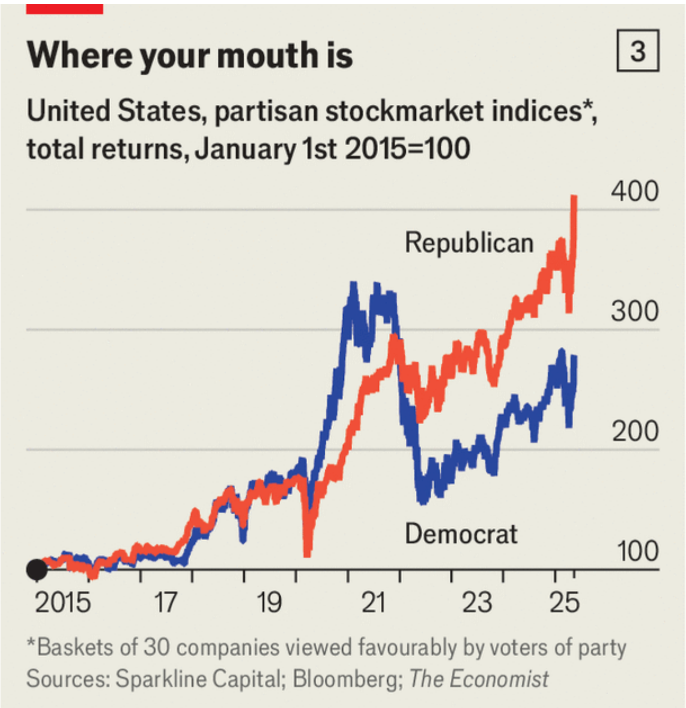


Chart: The Economist

These trends play out across America. Along with Kai Wu of Sparkline Capital, a fund manager, we assembled 30 listed firms that are seen favourably by Republicans or Democrats, based on surveys. The process was inevitably imprecise: there is no single poll that covers all companies. In the end, the Republican basket included firms such as John Deere, Fox and Harley-Davidson, whereas the Democratic one featured Etsy, Lululemon, Lyft and more. Recent market turmoil hit the Republican basket hard. But in the past decade its shareholder returns, including dividends, have thrashed the blue one (see chart 3).

Why do MAGA firms seem to outperform? Maybe they eschew virtue-signalling. Point Bridge America First, an exchange-traded fund that uses the stock ticker MAGA, includes only those firms which support Republicans. The Democratic Large-Cap Core Fund, with the stock ticker DEMZ, invests in companies that make big donations to the Democrats. Since the end of 2020 MAGA's price has easily outperformed that of DEMZ. Goldman Sachs, a bank, has built a stock index containing firms "that could benefit from key Republican policies", such as those in oil. Over the past decade their share prices have comfortably beaten the market.

The future for the MAGA economy is uncertain. By raising the cost of imported components, Mr Trump's tariffs will hurt manufacturing. Harley-Davidson is a soft target for foreign politicians looking to retaliate. On the flip side, however, Republican states, including Florida and Texas, are still enticing internal migrants. And with local consumer confidence strong, expect spending in MAGA-land to hold up better than in Democratic-leaning areas. It does not just rely on MyPillow.

America has given China a strangely good tariff deal

For the next 90 days, at least

Photograph: Getty Images

After a busy weekend of trade negotiations in Geneva, an impatient reporter asked when the results would be revealed. Li Chenggang, a Chinese official, replied with a wry smile and an old saying: “Good food is never too late.”

The dish, when it at last arrived on Monday May 12th, was surprisingly tasty. America had agreed to cut the “reciprocal” tariff it inflicted on China last month from 125% to a more digestible 10% for at least 90 days. China has agreed to do the same. It will also suspend other retaliatory measures, such as restrictions on 17 American companies deemed “unreliable entities”.

The agreement therefore reverses much of the April madness. Indeed, the S&P 500 share-price index of large American companies is now 5% higher than it was at the end of March. China's CSI 300 is about the same as it was back then.

Tariffs imposed by each country before April will, however, remain. They include an American levy of 20% intended to punish China for making the ingredients of fentanyl, a synthetic opioid, as well as the narrower duties that China adopted in retaliation. Moreover, America's tariffs now apply even to "small value" packages, worth less than $800, which previously escaped duties on the grounds the revenue was not worth the hassle of collecting. That exception ended on May 2nd.

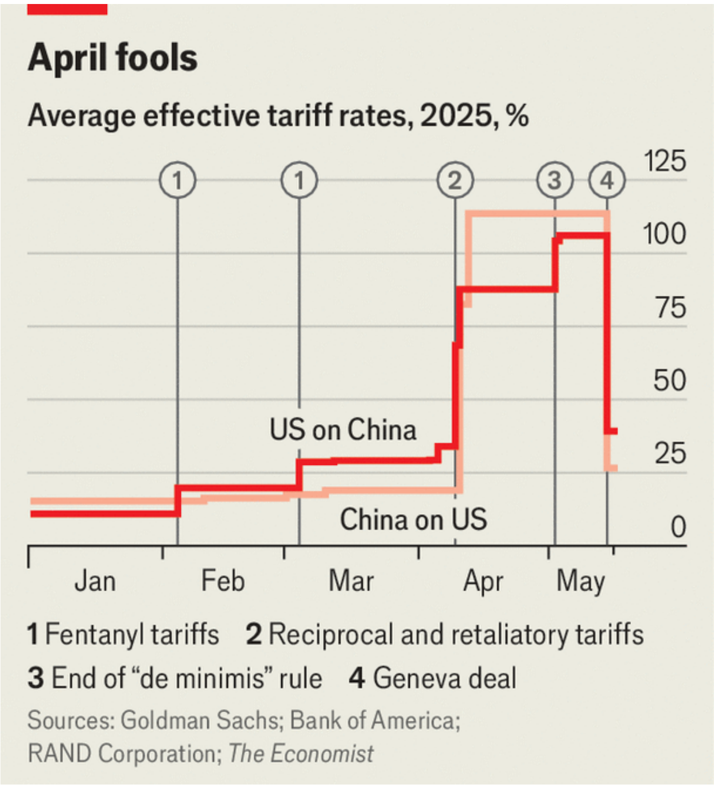


Chart: The Economist

The result is that even after the agreement, America's tariffs on China average about 39%, according to Goldman Sachs, a bank, when they are weighted by the value of last year's imports. At the same time, China's tariff on America averages about 27%, at least assuming that China continues quietly to exempt American chemicals, medicines and other essential goods from the duties. Both of these averages are far higher than when the year began, although they are also much lower than seemed likely a few weeks ago, when Mr Trump was admonishing China for a "lack of respect" and China was digging in for a protracted trade war (see chart).

Before the talks began, Scott Bessent, America's treasury secretary, had said the two sides were seeking merely to agree on what to talk about. Mr Trump had posted on social media that a tariff of 80% on China "seems right!" When the negotiating teams were seen leaving the venue after only a few hours on Saturday, some feared the talks had broken down. In fact, the negotiators were just going for lunch.

What, then, explains China's unexpected success? Jamieson Greer, America's trade representative, gave credit to the venue. The negotiations took place not in a "sterile" hotel, but in the intimate rooms and attractive grounds of an ambassador's residence. According to Mr Greer, many of the most difficult issues were discussed on patio sofas under a beautiful tree.

Meanwhile, the economic backdrop was becoming much less comfy. Chinese exports to America fell by more than a fifth in April compared with a year earlier. The prices of Chinese goods listed on the websites of big American retailers have also been rising slowly but relentlessly, according to data scraped by Alberto Cavallo of Harvard University and his co-authors.

In a press conference on May 12th, Mr Bessent all but conceded that tariffs on China had got out of hand. Mr Trump had announced a "reciprocal" levy of 34% on China on April 2nd, or "Liberation Day", as the president called it. That had quickly jumped to 84% and then 125% in response to Chinese retaliation. The result was the "equivalent of an embargo", which neither country wanted, Mr Bessent said.

Sealed with the Swiss

The financial chaos following Liberation Day included a bond-market revolt and a plunging dollar. This disturbance persuaded Mr Trump to offer a 90-day reprieve to most of America's trading partners on April 9th. After the Geneva talks, China has now been added to the list. Its reciprocal tariff of 10% is as low as any country enjoys. Moreover, this low rate applies even though China, unlike other countries, still has a 10% retaliatory tariff in place.

Now the most important question is what happens after Mr Trump's latest 90-day pause. Typical trade agreements take considerably longer to negotiate. And America's commercial grievances with China run especially deep, encompassing its industrial policies and implicit subsidies for state-owned enterprises. Mr Bessent was careful to point out that the 34% tariff chosen for China on Liberation Day is not a dead letter. It is the default to which America will return after the pause, if nothing happens in the interim.

To forestall that possibility China could conceivably agree to buy more commodities, such as oil or soyabeans, from America—goods that it might anyway have bought from elsewhere. It could also convince American politicians that it really is working harder to crack down on the production of fentanyl ingredients. Mr Bessent was impressed that China’s delegation included a minister of public security, who was well-versed on the drug-traffic issue. Maybe the two superpowers will orchestrate a compromise in which America raises the reciprocal tariff back to 34% but removes the 20% fentanyl penalty. That might be enough to turn the Swiss truce into a more lasting peace.

The Chinese adage about the punctuality of good food often continues to another line: “Interesting talk is never too slow.” If they are to avoid a return to the tariff disaster of the past months, China and America must hope that their talks over the next 90 days do not drag or bore.

Economists are as confused as Trump about taxing the rich

Forget technocracy. The top rate is set by gut instinct

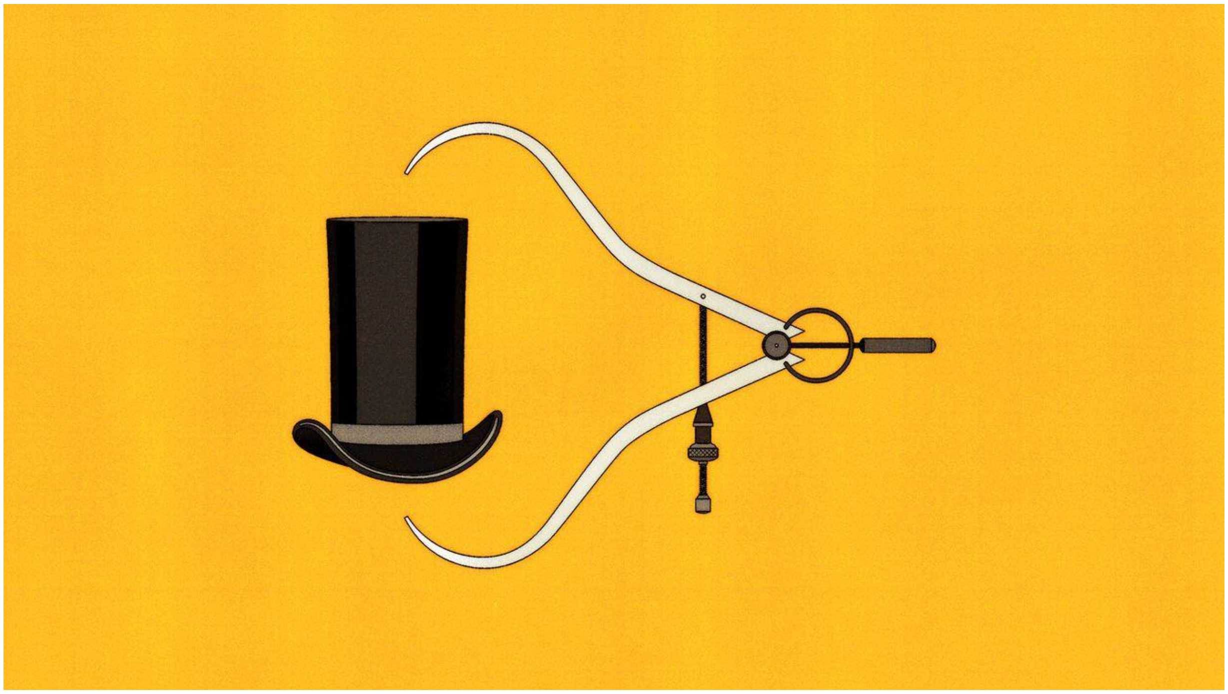


Illustration: Álvaro Bernis

IF YOU want to put a policymaker on the spot, ask them what the top rate of income tax should be. The question befuddles everyone. On May 8th President Donald Trump broke with decades of Republican convention when he reportedly urged Mike Johnson, the speaker of the House of Representatives, to increase America's highest federal levy on incomes from 37% to 39.6%, where it stood before the president's own reforms in 2017. Mr Trump then took to social media to announce that although he would "graciously accept" such a change "in order to help the lower and middle income workers", Republicans in Congress "should probably not do it". He is nevertheless "OK if they do".

This is usually the point at which to compare Mr Trump's haphazard argument with the staid advice of economists. But they seem just as confused as the president. Their research on the best level for the top rate of income tax can include statements such as: "alternative parameter values give a range of -

26% to 50%" (you read that right: a negative tax for top earners may be best). Other economists recommend rates as high as 70% or more, once taxes at all levels of government and income are included.

Why is it as hard for economists as it is for politicians to deduce the correct level for one of the most high-profile numbers in economic policy? One reason is the ethical judgment involved. Economists are more comfortable talking about efficiency than redistribution. Historically, research on "optimal taxation", rooted in the work of Sir James Mirrlees, a British economist, combined the two concepts with an intuitive belief that an extra dollar of wealth buys less additional happiness the richer you are. A utilitarian government—one that seeks to maximise the sum total of human well-being—might redistribute a lot of cash if (to use mathematical terms for the idea) utility functions are concave.

But happiness cannot easily be measured, and utilitarianism is anyway controversial: it ascribes no clear value to rights, meritocracy, poverty thresholds or notions of just desert. In 2016 Emmanuel Saez of the University of California, Berkeley, and Stefanie Stantcheva of Harvard University demonstrated that aggregated utility functions could be replaced by more general "weights". Under such an approach, you tell economists how much you value—for whatever ethical reason—each person's marginal dollar of income, and they can tell you how to set efficient taxes.

Or at least, they can try. Because even after "society" decides those weights, the economics that remains is supremely difficult. Mirrlees's framework focused on the degree to which taxes on labour, by discouraging work, reduce the incomes of the rich. To the extent there is a consensus on this distortion, it is that a 1% fall in the after-tax returns to work for high earners prompts their pre-tax earnings to drop by only 0.25%. Plug that number into a traditional formula, alongside other standard results, and you get an ideal top rate of tax in the region of 70% or more, including taxes at all levels of government and social-security levies.

The trouble is that the framework ignores a timeless question: how much does society as a whole benefit from letting people get rich? This is no small omission, given the spillover benefits from entrepreneurship and innovation. William Nordhaus of Yale University has estimated that innovators have historically captured for themselves only about 2% of the total surplus they create. In the extreme, such spillovers matter a great deal. The benefits of entrepreneurship are part of the explanation for why capitalism outperforms control economies such as that of North Korea.

Economists have only recently tried to incorporate the incentive to innovate into their calculation of optimal top taxes. It was one attempt to do so, by Charles Jones of Stanford University, that entertained the negative top rate of -26%. If high earners produce a lot of ideas that help society, then "subsidising the discovery of new ideas through low tax rates may be as effective as redistribution in raising worker welfare", he writes. In April Ms Stantcheva won the John Bates Clark medal, awarded each year by the American Economic Association to the leading economist under the age of 40, in part for her work on the matter. She has found that personal income taxes (and corporate levies) significantly deter innovation, though also that targeted policies, such as research and development subsidies, can be used as counterweights.

Business, unfinished

Perhaps this line of research will in time produce a consensus on the top rate of tax. Until it does, politicians have no choice but to follow their gut, and what works elsewhere. They might look to Scandinavia, which is home to dynamic economies and raises lots of tax, in part, it seems, by avoiding super-high levies on the rich. Sweden's top rate of income tax, for example, is only a smidgen above America's, once state and local levies are included. The big difference between the systems is that Sweden has a swingeing 25% rate of VAT, a levy on consumption that is painful for the poor but does not discourage work. It is a means to an end: Scandinavia's additional redistribution is done on the spending side of the ledger, with taxes kept pretty efficient.

"Efficient" is not the word you would use to describe the plans of Republicans in Congress. As they prepare to cut taxes, they have so far resisted Mr Trump's half-hearted call for a more progressive system. But their draft bill, released on May 12th, includes all manner of distortions, from exempting overtime and tips from taxable income, to increasing the deduction for state and local levies—a hand-out that subsidises tax increases at lower levels of government. Mr Trump's tariffs, meanwhile, stray about as far from optimal tax theory as it is possible to get. Economics may not be able to tell you how much to tax the rich. Nevertheless, it can still identify these ideas as foolish.

Is the market up or down? Republicans and Democrats disagree

Retail investing suffers from partisanship

Driven to distractionPhotograph: Getty Images

Although experts say that hypnosis can make broccoli taste like chocolate, it is unlikely to make someone jump out of a window. There is, however, something able to induce self-harm: partisanship.

Investors have every incentive to make smart decisions regardless of their party affiliation. Yet a recent YouGov poll—conducted on behalf of The Economist from May 2nd to 5th, when the stockmarket was down by an average of 8% since its peak on February 19th—indicates they nevertheless struggle. The polling suggests that partisanship coloured trading decisions and perceptions of the market in the wake of President Donald Trump's recent tariffs.

There has been little academic research into the impact of partisanship on retail investors; the work that exists mostly focuses on the attitudes and behaviour of credit analysts, portfolio managers and regulators. In 2017 a rare study by Yosef Bonaparte of the University of Colorado, Denver, and co-authors found that retail types tend to prefer riskier assets and to invest at home when their party is in power, reflecting greater optimism about the economy.

Technology

The race to build the fighter planes of the future

They can hold more fuel, carry more weaponry and boast more computing power

Photograph: News Licensing

"THERE'S NEVER been anything even close to it—from speed to manoeuverability…to payload," gushed Donald Trump, as he announced on March 21st that America's future fighter jet, the F-47, would be built by Boeing, an aerospace giant. The jet is one of several so-called sixth-generation aircraft on drawing boards around the world.

In December China showed off what was believed to be a prototype of the J-36, an imposing plane with stealthy features and a large flying-wing design. Britain, Italy and Japan are co-developing their own plane, in Britain provisionally called the Tempest, which is due to enter service in 2035. France, Germany and Spain hope that their Future Combat Air System (FCAS) will be ready by 2040. Together, these represent the future of aerial warfare.

Fighter jets tend to be categorised by their age, features and sophistication. The first generation appeared in the 1940s and 1950s. Many of those in NATO service today, like America's ubiquitous F-16, are fourth-generation ones, built from the 1970s to the 1990s. The latest fifth-generation planes, such as the F-35 and F-22, the latter perhaps the leading fighter jet in operation today, tend to enjoy stealth, the capacity for sustained supersonic flight and advanced computer systems.

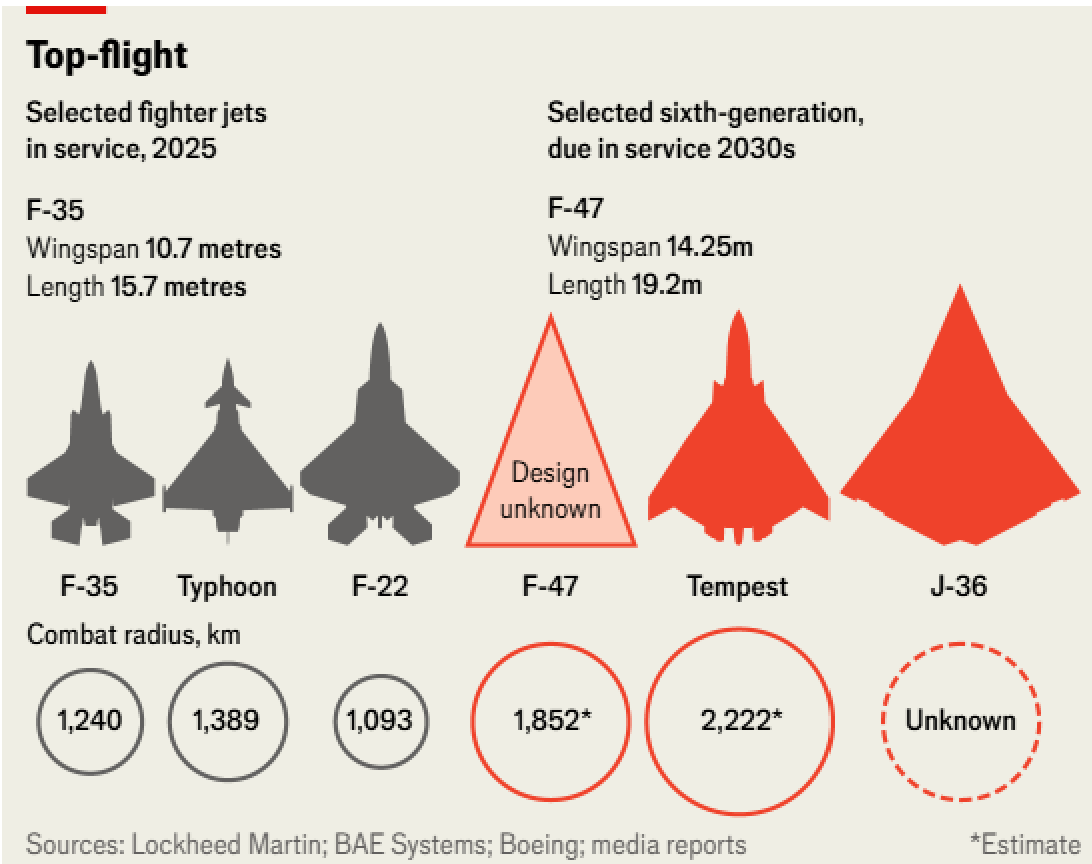
By comparison with earlier planes, the sixth generation of jets all have one thing in common—they're big. Early images of the F-47 have been heavily obscured and edited, and might bear little resemblance to the final plane. But photos of the J-36 and models of the Tempest (pictured) indicate aircraft far larger than the fourth-generation Chinese J-20 and European Typhoon or fifth-gen American F-35 and F-22. The similarity suggests that all these countries have similar prognoses about the future of war in the air.

One shift they all predict is more, and better, surface-to-air missile systems, a lesson reinforced by the strong performance of air defences in Ukraine. That requires more stealth to keep planes hidden from enemy radar. Stealth, in turn, requires smooth surfaces—bombs and missiles cannot hang off the wing, but must be tucked away inside a larger body.

Keeping their distance

A second shift is in the increasing range of air combat. For the past 40 years, the proportion of air-to-air kills that occur "beyond visual range" has grown steadily—from a tiny fraction of all in the 1970s to more than half between 1990 and 2002. Since then air-to-air missiles have been able to travel ever farther. Europe's Meteor, with a 200km range, was at the forefront of technology when it was first tested a decade ago. America's AIM-174B and China's PL-17 can now hit things 400km away. That means planes need better sensors to spot and fire at targets from farther away; they also need better electronic warfare equipment to parry incoming threats. These technologies require more space to generate power and remove all the heat that electronics tend to produce.

Finally, planes are especially vulnerable to long-range missiles when they are on the ground. That means they need to fly from more distant airfields, requiring larger fuel tanks and less drag for more efficient flight. The huge wings seen on the Tempest and the J-36 allow for both those things, notes Bill Sweetman, an aviation expert. Range is a particular concern for America. Its airbases in Japan are within reach of vast numbers of Chinese ballistic missiles. It plans to disperse its planes more widely in wartime and to fly them from more distant runways, such as those in Australia and on Pacific islands.



Long-range planes are appealing for several reasons. "We're talking about really extreme ranges," notes Group Captain Bill, the Royal Air Force (RAF) officer in charge of thinking through how the service will use the Tempest, speaking recently (without his surname) on the "Team Tempest" podcast, which is produced by the consortium building the aircraft. The plane will need to be able to cross the Atlantic Ocean on a single tank of fuel, he says, a journey that would require today's Typhoon jet to be refuelled three or four times. One reason for that might be that big refuelling tankers, which once sat safely to the rear of the front line, are increasingly vulnerable to new air-to-air missiles, like China's PL-17. Another is that the Tempest could then take circuitous routes, avoiding Russian air defences along the obvious paths.

Put all this together and you get planes that look like old-fashioned bombers. Mr Sweetman compares the hulking J-36, with massive wings and cavernous weapon bays, to an "airborne cruiser", optimised for range, stealth and carrying capacity over dogfighting agility. The single most important requirement for the Tempest is the ability to carry a lot of weapons, says Group Captain Bill, noting that it will have roughly double the payload of the beefiest F-35. That makes sense: if you can deliver more firepower per sortie, you can destroy a target with fewer risky flights into enemy airspace. "The same answers tend to pop up for all," says Mike Pryce, who has advised Britain's defence ministry on combat air design. "Stand off, don't be seen, shoot first, don't get into a knife fight."

As the planes get bigger, their insides are also evolving into what are essentially "flying supercomputers", says Roberto Cingolani, the CEO of Leonardo, an Italian company that is developing the wider Tempest programme along with Britain's BAE Systems and Japan's Mitsubishi. Leonardo says that the Tempest will be able to "suck up" a medium-sized city's worth of data in one second, according to Tim Robinson of the Royal Aeronautical Society. That could include anything from radio traffic to the emissions of air-defence radars. The point is to share that data with friendly forces, including tanks and ships, says Mr Cingolani, perhaps via satellite, with a "central artificial intelligence" making decisions—presumably which targets should be attacked, by what, and when. Some might suggest "that's science fiction," he says. "No, that's a vision."

Flying together

Perhaps the most contentious design choice is whether sixth-generation planes should have pilots. Elon Musk, Mr Trump's aide, recently mocked the fact that "Some idiots are still building manned fighter jets." In practice, most air forces believe that artificial intelligence (AI) and autonomy are not yet mature enough to allow a computer to replace a human pilot entirely; that will take until 2040, reckons the RAF. Images of the F-47, though unreliable guides to the final product, depict "a relatively large bubble canopy", notes Thomas Newdick of the War Zone, a website, "providing the pilot with excellent vision". Some missions are particularly sensitive: France will use the FCAS to deliver nuclear weapons, a task that may always remain a human prerogative.

Nevertheless, the prevailing idea is that sixth-generation planes will be the core of a larger "combat air system", in which a human in the cockpit controls a larger fleet of uncrewed drones, known, in American parlance, as collaborative combat aircraft (CCA). "The concept is that you have an aircraft-carrier that is flying," says Mr Cingolani. "It's an entire fleet that moves in the sky and makes decisions." The human in the cockpit is best described not as a pilot, says Group Captain Bill, but as a "weapons system officer", the RAF's term for someone managing sensors and weaponry.

On May 1st America's air force announced that it had begun ground testing its two CCA prototypes in advance of flight tests later this year. Current order numbers suggest that each F-47 will get two CCAs. The drones might scout ahead, spot targets or carry weapons themselves—all within line-of-sight and under "tight control", notes Frank Kendall, a former air-force secretary. Much of the intensive computing required to carry out these tasks will need to take place on board the crewed mothership, with relevant data shared to all craft instantaneously, says Mr Cingolani, speaking in the context of the Tempest. He emphasises that the communication links have to be secure. "I'm not sure in ten years we can make it."

If he and his company can pull it off, it will cost a pretty penny. Mr Kendall, in the Biden administration, paused the development of the F-47 in large part because it was expected to cost twice as much as the F-35—perhaps as much as $160m-180m apiece—which would mean the government could afford only a small fleet of 200 or so planes. Many in the Pentagon wanted a greater emphasis on building CCAs to complement the existing fleet of F-35s, rather than pouring money into a new platform that might not turn up until long after a war with China.

In Britain, Justin Bronk, an air power expert at the Royal United Services Institute, expresses similar concerns, drawing an analogy with the experimental versus war-winning weapons of the second world war. "Pouring all the money that defence can spare…into a programme that, in the best case, will not deliver a fully operational capability before 2040 feels to me like the UK concentrating all Air Ministry resources on Avro Vulcan development in 1936," he says, citing a plane that did not appear until a decade after the war was over, "rather than Hurricanes, Spitfires, Blenheims, Whitleys and Wellingtons."