

Business



Photograph: Getty Images

Donald Trump fired Erika McEntarfer as head of the Bureau of Labour Statistics, alleging, without evidence, that her department was manipulating employment figures to make his administration look bad. The BLS's monthly jobs survey is watched closely by investors. Its report for July recorded 73,000 new jobs in the month, but it also revised down the estimate for May and June by a whopping 258,000, making those months the lowest for job creation since the start of the pandemic in early 2020. Economists are still trying to work out why the revision was so large. They also worry that Ms McEntarfer's sacking will undermine the credibility of future federal statistics.

We need to talk about Kevin

Mr Trump suggested that he was considering either Kevin Hassett or Kevin Warsh to replace Jerome Powell as chairman of the Federal Reserve. Mr Hassett is the director of the National Economic Council and Mr Warsh sat on the Fed's board from 2006 to 2011. Mr Powell's term as chairman does not end until May next year, but a vacancy on the Fed's board could offer the president a chance to name his successor.

The Bank of England reduced its benchmark interest rate from 4.25% to to 4%. The central bank said that although consumer prices are rising, with the 12-month inflation rate hitting 3.5% in the second quarter and expected to reach 4% in September, underlying growth in the economy "remained subdued". The decision was close. The monetary committee was forced to hold two votes to arrive at a 5-4 decision to cut by a quarter of a percentage point.

China's exports increased by 7.2% in July, year on year, helped by a truce in America's trade war with China. August 12th is the next deadline for a trade deal.

BP announced an oil-and-gas discovery at the Bumerangue prospect in Brazilian waters. It is the company's biggest find in 25 years, forming part of its strategy to refocus on fossil fuels and away from renewables. BP also updated investors on its cost-cutting programme and said it would review the sequence of investments in new projects in order to increase shareholder value. It is also cutting 6,200 office jobs. Elliott Management, an activist hedge fund, is pressing BP to do more to increase its stock price.

BP's headline profit in the second quarter fell by 14%, year on year, though it was far from being the only big oil company to have had a damp spring. Chevron and ExxonMobil reported their lowest second-quarter net profits in four years. Shell and Total Energies have also announced sharp drops in profit for the period.

After contemplating a move of its primary share listing to New York, Glencore confirmed that it will keep the stock registered on the London Stock Exchange (Glencore also trades shares in Johannesburg). It is a boost for the British bourse, which has seen a number of companies defect elsewhere of late.

Tesla awarded shares worth around \$24bn to Elon Musk, raising his holding to 15%. Mr Musk has warned he may leave the company or be forced out, but in a securities filing Tesla said "We are confident that this award will incentivise Elon to remain." Mr Musk has been battling a judge's decision to strike down a previous pay package worth \$56bn. He must retain a senior executive role for two years to qualify for the new pay out. Meanwhile, Tesla's European car sales plummeted again in July, as those of BYD, a low-cost Chinese competitor, surged.

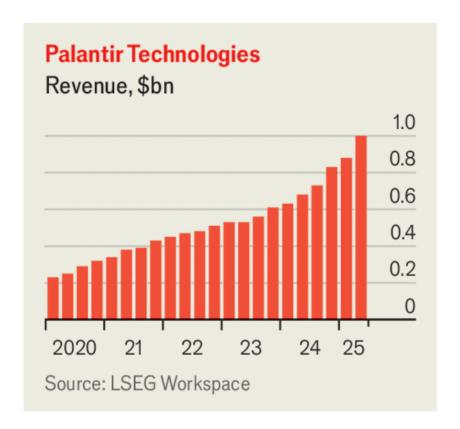


Chart: The Economist

Palantir reported quarterly sales of \$1bn for the first time. The data-analytics company, best known for its work in the defence industry, said revenue from the American government had risen by 53%, year on year, amid the Trump administration's roll-out of new spending on national security. Palantir's share price has surged by 135% this year, outperforming the likes of Meta, Netflix, Nvidia and Oracle.

OpenAI was reported to be considering a sale of stock by current and former staff that would give it a notional value of \$500bn, a huge increase from the \$300bn it was reckoned to be worth in its previous funding round.

Berkshire Hathaway wrote down its investment in Kraft Heinz for the second time since buying a large stake in the consumer-goods company in 2015. The charge reduced its post-tax profit by \$3.8bn. The write-down comes amid investors' skittishness about the looming departure of Warren Buffett as chief executive. Berkshire's share price is down by almost 15% since early May, when it was announced that he would step down.

No such thing as bad PR?

Jaguar Land Rover is getting a new chief executive. P.B. Balaji, who is head of finance at Tata Motors, JLR's parent company, will sit in the driving seat from November, an appointment that is seen as tightening Tata's grip on its subsidiary as it pivots towards making only electric cars. The leadership change comes as JLR also grapples with a controversial rebranding; an ad last year featured brightly coloured futuristic fashion models, but no cars. Responding to JLR's management change this week, Donald Trump took to social media to decry the rebranding as woke, and asked, "Who wants to buy a Jaguar after looking at that disgraceful ad?"

Finance & economics

Buy now, pay later is taking over the world. Good

Buy that burrito, and don't let anyone judge you



Illustration: Álvaro Bernis

BURRITOS ORDERED online, tickets to Coachella and Botox injections. These are not just must-haves for some American consumers—they can now all be bought using buy-now, pay-later financing.

Such purchases are often the subject of derision. Paying for lunch in instalments is, to some, consumerism at its most ludicrous. Others see something darker: lending that skirts the edge of mainstream finance, preying on precarious borrowers.

Neither mockery nor anxiety have dented the industry's growth, however. Worldpay, a payments firm, suggests that BNPL accounted for \$342bn in spending around the world last year, up from just over \$2bn a decade earlier. Older financial firms, such as JPMorgan Chase and PayPal, have entered the market, just as BNPL companies are taking on tasks that were previously left to banks. The opportunity for BNPL in business-to-business loans—a fragmented, old-school market—may be even larger than that for consumers. And a new market is emerging for portfolios of BNPL debt, which are securitised and bought up, often by asset managers.

The idea of a loan at the point of sale is an old one. In 1856 Isaac Singer and Edward Clark, an entrepreneurial duo, began selling sewing machines in instalments, with great success. The modern industry operates in a similar manner. When a customer buys a product for \$100, they can pay in stages. The BNPL lender—perhaps Klarna, a Swedish company, or Affirm, a large American provider—pays the merchant upfront, in exchange for a cut of, say, \$3. This is attractive to retailers, since it boosts sales. Customers with access to loans spend at least 20% more than those without access, even as the sticker price stays the same. The customer pays back the sum over time, often six weeks, in four instalments and with zero interest.

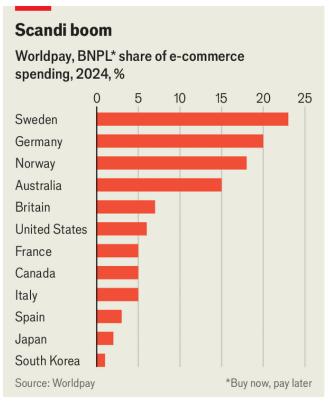


Chart: The Economist

Despite the industry's recent success, there is reason to think it is still in the foothills. Fewer than 2% of Bank of America customers born before 1965 have an outstanding BNPL payment, compared with 10% of the bank's millennial and Generation Z clients. As younger cohorts come to account for more consumer spending, the market should grow. In countries where BNPL has been around longer, it contributes to more sales: over one in five of those made online in Sweden, against less than one in sixteen in America. Local and regional firms are popping up to offer the service: Addi in Colombia, Atome in Singapore, Tamara in Saudi Arabia.

As the industry grows, the borders between BNPL and mainstream finance are blurring. Klarna, an early mover, has been a bank in Europe since 2017. Sebastian Siemiatkowski, the company's cofounder and boss, says he wants it to become a digital financial assistant enabled by artificial intelligence. Affirm launched a debit card two years ago, and has seen uptake soar of late: the firm now reports almost 2m cardholders. Customers can use the cards in shops, either to pay in full or in instalments, bringing a financing method synonymous with e-commerce into the real world. In the past two years, both the BNPL giants have been integrated into Apple's and Google's digital wallets.

Established financial firms are moving in the opposite direction. PayPal began offering BNPL services in 2020, capitalising on its strong relationships with merchants. Last year the payments giant processed \$33bn in BNPL spending, an amount it says is growing at about 20% a year. Several banks now allow customers to split larger payments into smaller chunks after purchases. And Klarna's recent deals with firms such as Adyen, JPMorgan Payments and Stripe mean that its services are now provided to millions of merchants.

Strictly business

Several fast-growing startups hope to disrupt trade credit, a vast market in which suppliers lend money to firms that buy their products. American companies alone report about \$4.9trn in trade payables, money owed to other firms for supplies purchased on credit. The market is about four times the size of the \$1.2trn in balances on American credit cards. It is also antiquated and ripe for innovation. Suppliers doing the lending are forced to manually assess whether each of their clients is creditworthy, with little information to go on, and chase buyers for payments.

Matthias Knecht, co-founder of Billie, a firm specialising in business-to-business BNPL loans, suggests that such lending is roughly 15 years behind the consumer market. Richard Thornton, co-founder of Hokodo, another startup, believes that the potential impact on business spending is greater than with consumers, because of the limited alternatives available to young firms. He says that when small companies gain access to BNPL, shopping baskets grow by around 40% on average.

For BNPL providers, expanding as fast as possible means keeping a light balance-sheet. The idea of burrito-securitised bonds may be the subject of mockery, but the relatively opaque market for BNPL portfolios is booming. Asset managers and private investment firms that are snapping up the debt believe they have found an appetising asset class in which underlying assets mature quickly. In October, Elliott Advisors, a British affiliate of a mammoth hedge fund, purchased Klarna's \$39bn British loan portfolio. In 2023 KKR, a private-markets giant, agreed to buy as much as \$44bn in BNPL debt from PayPal. Affirm has issued around \$12bn in asset-backed securities. One BNPL insider calls the market "a feeding frenzy", where there is not enough debt to satisfy demand.

Some difficult questions linger over the industry, which has ballooned over the past decade—a period without a prolonged downturn. Chief among them is whether it is facilitating risky borrowing by consumers living beyond their means.

BNPL customers undoubtedly have lower incomes than those using credit cards. And there have been worrying snippets of news. Klarna's consumer-credit losses rose by 17% year-on-year in the first quarter of this year. Research by the Federal Reserve suggests that the share of BNPL users who have made a late payment climbed from 15% in 2021 to 24% in 2024.

All the same, default rates remain lower than for other forms of consumer credit. The Consumer Financial Protection Bureau (CFPB), a regulator, notes that default rates for BNPL loans were 2% from 2019 to 2022, against 10% for credit-card debt held by similar borrowers. Although Klarna's credit losses have grown in the past year, so have its balances. The firm's overall default rate is lower than the industry norm.

Could a growing pile of distressed consumer debt be hidden from view, beyond the sight of banks and policymakers? Some lenders worry about loan-stacking (borrowing from many sources at once). Such behaviour can cause a downwards spiral, with consumers taking on more and more loans in order to pay off earlier ones. Yet other research by the CFPB offers reassurance. It finds that measures of financial distress—such as revolving debt on credit cards or extra charges on credit-card loans—do not rise after BNPL use. Nor are BNPL users more likely to borrow from other sources in the 18 months after agreeing to pay for something in instalments.

In June, FICO, America's main provider of consumer-credit scores, announced it would begin providing scores based on borrowers' BNPL histories. Julie May, an executive at FICO, notes a surprising finding from its year-long study with data from Affirm: for the most frequent borrowers, credit scores were improved or unchanged when BNPL loans are included. Research in Scandinavia finds similarly positive results. Christine Laudenbach of Goethe University Frankfurt and co-authors recently looked at 1m loan applications to an unnamed Nordic bank that makes use of BNPL data.



Clients with a history of BNPL use, as well as a strong repayment history, were able to borrow at an average interest rate of 1.4 percentage points below the level suggested by their credit ratings.

The final verdict on BNPL will come only in a severe downturn. But although its users are young, and many are new to borrowing, there are reasons for optimism. As this new form of finance becomes increasingly mainstream, it looks safer and more useful than its critics argue. Buy that burrito, and don't let anyone judge you.

Want better returns? Forget risk. Focus on fear

A recent study suggests a new paradigm for asset pricing



Illustration: Satoshi Kambayashi

An investor will take on more risk only if they expect higher returns in compensation. The idea is a cornerstone of financial theory. Yet look around today and you have to wonder. Risks to growth—whether from fraught geopolitics or vast government borrowing—are becoming ever-more fearsome. Meanwhile, stockmarkets across much of the world are at or within touching distance of record highs. In America and Europe, the extra yield from buying high-risk corporate bonds instead of government debt is close to its narrowest in over a decade. Speculative manias rage around everything from cryptocurrencies and meme stocks to Pokémon cards.

A common explanation for effervescent markets is that investors have become reckless or outright irrational. Or perhaps the relationship between risk and return simply is not there, posits a working

paper by Rob Arnott of Research Affiliates, an investment firm, and Edward McQuarrie of Santa Clara University. They argue that over the past two-and-a-bit centuries, risk (as conventionally defined) has done a lousy job of explaining the relative returns of stocks and bonds. In its place, they propose fear—a more complex thing—as the real driving force of markets.

Standard portfolio theory says a stock's uncertain future returns are distributed along a bell curve. The expected return lies under the peak, and risk is equivalent to the curve's variance, or spread. These assumptions make the maths elegant and, more important, tractable. But they are also flawed. Stock returns do not in fact follow a bell curve: they take extreme values too often and are asymmetric. Investors, meanwhile, do not regard the curve's full spread as risky, but just the side of it corresponding to losses. Who, however risk-averse, would be upset by an outsize return?

What is more, risk theory gives an inadequate account of historical returns. A core prediction is the "equity risk premium", meaning the tendency of stocks, being riskier, to deliver better long-term returns than government bonds. To test this, Mr McQuarrie compiled American stock and bond prices going back to 1793, using data from newspaper archives. Previous studies had seemed to establish the equity risk premium as a persistent, relatively stable property of markets; his new database calls that into question.

An investor who bought American stocks in 1804 would have had to wait 97 years before their return beat that of bonds. By 1933 they would have fallen behind again. A statistical test of the relationship between variance and return, over the database's full timespan, failed even to find a "modest or inconstant" risk premium. The cumulative equity risk premium (up to 2023) has nevertheless been large. But 70% of it came from an exceptional period between 1950 and 1999; the rest of the time, stocks' relative performance was middling or poor. And these, after all, were results for one of the world's best-performing stockmarkets. Other researchers have shown that, since 1900, those of other countries have on average returned far less.

Realised variance and returns contain both expected and unexpected elements, so no theory is likely to match the data perfectly. Even so, the scale of these departures from what risk theory would predict, over such a long timespan, warrants a search for a new framework. Messrs Arnott and McQuarrie propose that instead of pricing assets by their variance, investors price them according to two fears: fear of loss (FOL) and fear of missing out (FOMO). Whereas risk is measured by variance, FOL refers only to its downside (or "semivariance"). An asset inspires FOMO if it has the chance of wild, unexpected gains that those shunning it might miss. This is measured by the "skewness", or asymmetry, of its return distribution.



Rather than working through fear theory's maths, which they admit is formidable, the authors hope to tempt others to investigate it with them. They might just succeed. As well as being a widespread, often rational impulse, FOMO helps explain why people would buy overpriced stocks, or even speculative assets with no fundamental source of returns. Its absence from conventional theory seems like an error. And FOL describes how people actually think of risk far better than variance does. Just like investors' mood and market dynamics, the balance between the two can vary dramatically with time and circumstance. The historical record suggests that portfolio theory needs some new ideas. Fear might be just the thing.

An economist's guide to big life decisions

Forget your trip to the dentist. A new check-up is required

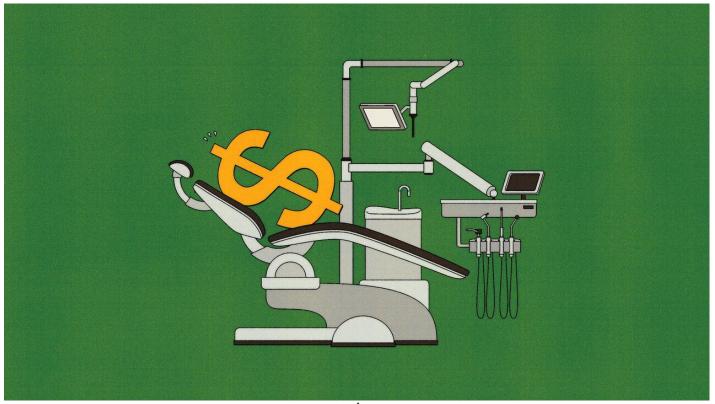


Illustration: Álvaro Bernis

Time for your annual check-up. After what feels like an eternity in the waiting room, flicking through dog-eared copies of the world's finest publications (did you know Indonesia is at a crossroads?), your name is called at last. A smiling professional awaits you, only this time the room smells not of disinfectant, but of the solvents used in whiteboard markers. Instead of a fold-out bed, there is a Bloomberg terminal behind the modesty curtain in the corner, flashing green or red with every tick of the market. The economist will see you now.

Economists should behave in a manner that would lead the public to think of them as "humble, competent people" akin to dentists, wrote John Maynard Keynes, a not-very-humble economist. If they could get the public to see the profession as being on a similar level to their white-coated peers, he wrote, that would be a "splendid thing". Keynes was referring more to a technocratic consensus about

how to run the economy, rather than to the sort of personalised care and attention provided by a medical professional. But what if the profession took his idea both seriously and literally? Could a trip to the economist make your life better?

On arrival, the first question is what seems to be the matter: income or happiness? The good news is that more money should make you jollier. Although economists once worried there was a point at which gains to emotional well-being from higher incomes plateaued—a study in 2010 pegged it at \$75,000 (\$110,000 today)—research by Matthew Killingsworth of the University of Pennsylvania has overturned this idea. He finds that for all but a small minority, well-being typically increases along with income, and that there is no upper limit to the trend. Modern economic research therefore confirms that Kingsley Amis, a British novelist, was correct when he wrote there is "no end to the ways in which nice things are nicer than nasty ones". But even if there was a point at which more money did not make you happier, the vast majority of an economist's patients would still benefit from earning more in other, non-happiness-related ways. Better the economist focuses on the tangible and leaves the transcendental to the priest.

With many patients, the economist might take a look at their chart and tut, "I wouldn't start from here." A person's place of birth has the biggest impact on their life outcomes. The 83% of the world's population who live in non-rich countries hold a bad hand. At least the prescription is simple: move if you can. Returns to migration are sky-high. A paper in 2016 by Michael Clemens, then at the Centre for Global Development, Claudio Montenegro of the World Bank and Lant Pritchett, then of Harvard University, calculated the benefits of moving from the poor world to America for a typical 30-year-old man with a secondary education. They came to \$14,000 or so a year, adjusting for the different price levels. Such benefits are also likely to be passed down to any offspring. Indeed, the puzzle among economists is why so few people move rather than so many. (Border fences explain only so much.)

The rest of the advice will depend on how old you are and what has already gone wrong. A handful of big decisions—whether to go to university and what to study, what career you pursue, whether to start a family and with whom—matter more than others. A college education is usually a good bet. In 2020 the Institute for Fiscal Studies, a British think-tank, found that, after accounting for individual characteristics and taxation, university leads to a typical bump of 20% in lifetime earnings. But the returns depend on what you study: entrants to creative-arts courses can expect no financial benefits. Male medics and economists both enjoy a lifetime wage increase of around £500,000 (\$625,000).

An economist should point out that, although wages do vary widely between occupations, a rising share of the variation is explained not only by what you do but by the company for which you work. Best, then, to get a job at a superstar employer. Unionised companies may pay more than their non-

unionised counterparts, but if you are a high-flyer you might want to opt for the latter. Unions tend to ensure that low performers get paid more while high performers get paid less. When it comes to relationships, later marriages are typically more stable, but much of this is what an economist might call a "selection effect". The timing of marriage has little effect in itself—instead, the pattern reflects the type of person who waits for just the right partner. Research also suggests that it may be better to delay having children, and in this case it might not be a selection effect: the later a woman's career break, the smaller the impact on her lifetime earnings.

For older patients, the economist has less advice. Saving for retirement is more valuable the earlier you start. The economist might get out their whiteboard markers for an impromptu refresher on compound interest for youngsters. Older folk do not have much time to improve their earning power, so they should focus on becoming happier instead. Loneliness is the big risk. Perhaps a second degree in the creative arts could help?

Nine out of ten wonks recommend...

All of this comes with a caveat: economic research tends to deal in averages. Much of the advice will be generic, rather than tailored to the individual. So, too, is a dentist's: brush your teeth, floss regularly, avoid sugar and do not smoke. But the dentist at least can carry out remedial work and fix things after they have gone wrong. The economist has few tools to fill in career gaps or polish a grubby CV. They can provide some helpful guidance to those who lose their jobs—retraining is helpful but think carefully about the precise course; if the whole region is suffering then those who move earlier are likely to suffer the least—but little in the way of direct help. To live up to Keynes's metaphor, economists need more than data. They need drills.

Tecnology Fraudulent scientific papers are booming

A subset of journal editors may be partly responsable



Illustration: Ben Denzer

SCIENTIFIC JOURNALS exist to do one thing: provide accurate, peer-reviewed reports of new research to an interested audience. But according to a paper published in PNAS on August 4th, that lofty goal is badly compromised. Scientific fraud, its authors conclude, happens on a massive scale and is growing quickly. In fact, though the number of scientific articles doubles every 15 years or so, the number thought to be fraudulent has doubled every 1.5 years since 2010 (see chart). If nothing is done, says Luís Nunes Amaral, a physicist at Northwestern University in Chicago and the study's senior author, "The scientific enterprise in its current form would be destroyed."

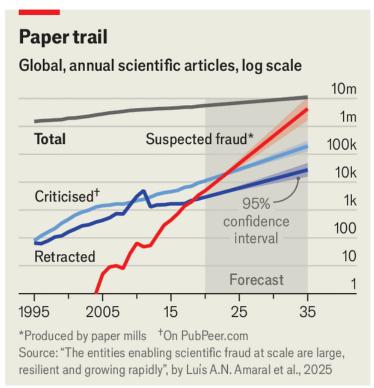


Chart: The Economist

It has long been clear that publication fraud rarely comes from lone fraudsters. Instead, companies known as paper mills prepare fake scientific papers full of made-up experiments and bogus data, often with the help of artificial-intelligence (AI) models, and sell authorship to academics looking to boost their publication numbers. But the analysis conducted by Dr Amaral and his colleagues suggests that some journal editors may be knowingly waving these papers through. Their article suggests that a subset of journal editors are responsible for the majority of questionable papers their publications produce.

To arrive at their conclusion, the authors looked at papers published by PLOS ONE, an enormous and generally well-regarded journal that identifies which of their 18,329 editors is responsible for each paper. (Most editors are academics who agree to oversee peer review alongside their research.) Since 2006 the journal has published 276,956 articles, 702 of which have been retracted and 2,241 of which have received comments on PubPeer, a site that allows other academics and online sleuths to raise concerns.

When the team crunched the data, they found 45 editors who facilitated the acceptance of retracted or flagged articles much more frequently than would be expected by chance. Although they were

responsible for the peer-review process of only 1.3% of PLOS ONE submissions, they were responsible for 30.2% of retracted articles.

The data suggested yet more worrying patterns. For one thing, more than half of these editors were themselves authors of papers later retracted by PLOS ONE. What's more, when they submitted their own papers to the journal, they regularly suggested each other as editors. Although papers can be retracted for many causes, including honest mistakes, Dr Amaral believes these patterns indicate a network of editors co-operating to bypass the journal's usual standards.

Dr Amaral does not name the editors in his article, but Nature, a science magazine, subsequently made use of his analysis to track down five of the relevant editors. PLOS ONE says that all five were investigated and dismissed between 2020 and 2022. Those who responded to Nature's enquiries denied wrongdoing.

Compelling as Dr Amaral's analysis is, it does not conclusively prove dishonest behaviour. All the same, the findings add to a growing body of evidence suggesting some editors play an active role in the publication of substandard research. An investigation in 2024 by RetractionWatch, an organisation that monitors retracted papers, and Science, another magazine, found that paper mills have bribed editors in the past. Editors might also use their powers to further their own academic careers. Sleuths on PubPeer have flagged papers in several journals which seem to be co-written by either the editor overseeing the peer review or one of their close collaborators—a clear conflict of interest.

Detecting networks of editors the way Dr Amaral's team has "is completely new", says Alberto Ruano Raviña of the University of Santiago de Compostela in Spain, who researches scientific fraud and was not involved with the study. He is particularly worried about fake papers remaining part of the scientific record in medical fields, where their spurious findings might be used to conduct reviews that inform clinical guidelines. A recent paper in the BMJ, a medical journal, found that 8-16% of the conclusions in systematic reviews that included later-retracted evidence ended up being wrong. "This is a real problem," says Dr Ruano Raviña.

Yet the incentives to commit fraud continue to outweigh the consequences of being discovered. Measures including a researcher's number of publications and citations have become powerful proxies for academic achievement, and are seen as necessary for building a career. "We have become focused on numbers," says Dr Amaral. Some journals, for their part, make more money the more articles they accept.



All the same, pressure is growing on publishers to root out bad papers. Databases of reputable journals, such as Scopus or Web of Science, can "de-list" journals, ruining their reputations. It's up to the publishers to bring about a relisting, which means tidying up the journal. "If we see untrustworthy content that you're not retracting, you're not getting back in," says Nandita Quaderi, editor-in-chief of Web of Science. But whether publishers and the many editors who work hard to keep bad science out of their journals can keep up with the paper mills remains to be seen.

The Economist: https://www.economist.com