

# GER

GODALMING ECONOMICS REVIEW

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EDITION ONE

JUNE 2026

**ISSUE THEMES;**

STATE ROLE IN MANAGING THE ECONOMY  
ECONOMIC SYSTEMS, POWER & DISTRIBUTION  
BEHAVIOUR, COMPETITION & MARKETS

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## Contents

Page 2: What is the GER & Editor's Note

### **PART 1: POLICY**

#### **State Role in Managing The Economy**

Page 4: How Japan's Monetary Policy Shaped Global Financial Markets – George Staley

Page 6: How Much Damage Are Companies Really Doing to Our Environment, and Is Sustainable Energy Shaping a Different Future? - Kiriana Nepia

Page 8: How the Increase in Fuel Prices Will Impact the UK's Overreliance on Car Commuting - Jacob Brewer

Page 9: Is Poor Nutrition Costing the Economy More Than We Think? - Daniela Vacca

Page 11: Why Do Wars Make Energy So Expensive? - Richard Powell

Page 13: Should AI Growth Be Regulated? - Daniel Lambkin

### **PART 2: OUTCOMES**

#### **Economic Systems, Power & Distribution**

Page 16: The Price of Power: How Modern Conflict Reshapes Global Inequality - Jay Plested

Page 18: How Has Government Austerity Since 2010 Caused Economic Inequality? - Dylan Crowley

Page 19: The Cost of Living: Easier or Just Changing Shape? - Jude Clarke

### **PART 3: BEHAVIOUR**

#### **Behaviour, Competition & Markets**

Page 22: Artificial Intelligence: Bubble or Real Development? - Chen Liang

Page 25: Are Companies Engineering Consumers to Spend More Money? - Elisa Mihasan

Page 27: How effective are PSR rules in the Premier League? - Isaac Littlecott

Page 28: Can Game Theory Be Used to Explain Behaviour? - Taalay Ullah

Page 30: How Behavioural Economics Plays a Part in Microtransaction Fraud - Maddie Kirkham

## **WHAT IS THE GER?**

The Godalming Economics Review is a Year 12 student-led economics journal started this year for and by Godalming College students. It provides a platform for students to explore contemporary economic issues through independent research and analysis.

It was founded with three aims that students decided on: to communicate economics to a wider audience, to help students develop skills that support university applications and future careers, and to encourage deeper engagement with real-world economics beyond the classroom.

Students selected their own topics, conducted independent research and produced the articles featured in this edition. A student editorial team then worked alongside the authors to peer review, edit and prepare submissions for publication, producing the final Journal.

## **EDITOR'S NOTE**

Welcome to the inaugural edition of the Godalming Economics Review.

The topics chosen by students for this first edition say a lot about the economic issues shaping 2026. Several articles examine the role of government in responding to challenges such as climate change, public health, energy security, transport and technological change. Others focus on living standards, inequality and economic power, exploring how economic and political decisions can have very different consequences for different groups within society. A third theme centres on behaviour, competition and markets, investigating how consumers, firms and investors make decisions in an increasingly digital economy.

As the first edition of the Review, this publication marks the beginning of what we hope will become a lasting annually published journal. It provides a platform for students to share ideas, develop their analytical skills and contribute to economic discussion beyond their studies.

Thank you to all of the student authors who contributed their work and to the editorial team whose commitment and attention to detail made this publication possible.

We hope you enjoy reading this first edition of the Godalming Economics Review.

Noor Hardo

Economics Teacher

Godalming Economics Review

2026

## PART 1: POLICY

### STATE ROLE IN MANAGING THE ECONOMY

Economic outcomes are not shaped by markets alone. Governments, central banks and regulators play a significant role in determining how resources are allocated, how industries develop and how societies respond to major challenges. The articles in this section explore the role of public policy in addressing issues including transport, environmental sustainability, public health, energy security and technological change. Together, they examine the opportunities and limitations of government intervention in shaping economic outcomes and improving social welfare.

How Japan's Monetary Policy Shaped Global Financial Markets – George Staley

How Much Damage Are Companies Really Doing to Our Environment, and Is Sustainable Energy Shaping a Different Future? - Kiriana Nepia

How the Increase in Fuel Prices Will Impact the UK's Overreliance on Car Commuting - Jacob Brewer

Is Poor Nutrition Costing the Economy More Than We Think? - Daniela Vacca

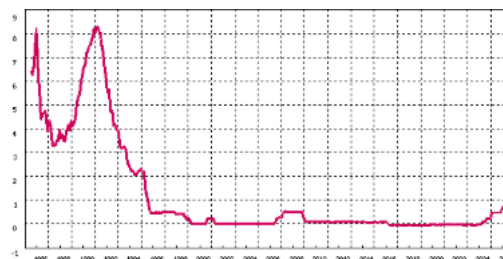
Why Do Wars Make Energy So Expensive? - Richard Powell

Should AI Growth Be Regulated? - Daniel Lambkin

## How Japan's Monetary Policy Shaped Global Financial Markets

*George Staley*

What happens when one of the world's largest economies makes borrowing virtually free? Japan is well known for its unique economic situation: it has one of the highest global public debt ratios, an ageing population, and low economic growth rates. However, perhaps its most notable feature is its interest rates, which have been ultra-low and, at times, negative- meaning that depositors pay to hold money in a bank. Low interest rates aim to increase aggregate demand by encouraging borrowing, reducing the marginal propensity to save, and improving export competitiveness via a depreciating exchange rate. But how did Japan reach a situation where such drastic measures were needed?



*BOJ real interest rates, 1985 to present*

To understand why Japan did this, we need to look back to the 1980s. Between 1985 and 1991, average prices of residential land rose by 180.5% across Japan's six biggest cities, whilst the Nikkei 225, an index of Japan's top 225 companies, tripled in value from ~13,000 in early '86 to ~39,000 in late '89 (Yahoo! Finance, 2026). The economy was operating in a positive output gap- meaning actual economic growth had exceeded its long-term potential, creating excess demand- and was overheating due to high levels of speculation and low interest rates. As a result, the Bank of Japan increased the interest rate from 2.5% to 6% over a period of three years, which led to a huge decline in consumer confidence: the asset price bubble had popped (Ito, 1995). Asset prices crashed, with the Nikkei 225 index, the main stock market index for Japan, falling to 36.8% of its all-time high and house values falling dramatically.



*Nikkei 225 Index*

Over the next few decades, inflation was extremely low and even negative in periods, leading to delayed consumer spending, low consumer confidence and overall weak aggregate demand, creating a deflationary spiral. As a result, the Bank of Japan cut interest rates to try to stimulate aggregate demand in the economy, but growth has remained relatively stagnant, with this period later becoming known as 'The Lost Decades' (Bayoumi, 2000). However, in doing so, this gave investors an opportunity for one of the cheapest sources of borrowing in the financial world.



*Japanese Economic Growth (1980 to 2026)*

A carry trade occurs when an investor borrows in a low-interest-rate currency and invests the borrowed money into a higher interest rate currency or asset elsewhere in the world, profiting from the difference. This strategy is conducted by financial institutions such as hedge funds, investment banks and asset management firms. Japan's low-zero interest rates have made the yen (¥) the world's most popular currency for this trade. As an example, an investor might borrow ¥1 billion (about £4.7 million) at a 0.1% interest rate. Then, they would convert this into a reliable currency such as dollars or pounds and use this currency to buy a safe asset such as UK or US bonds. If the yield for this asset was 4.5%, which is average for US or UK bonds, they would earn around £212,000 in income, whilst only paying £4,700 of interest on the loan, meaning a profit of £207,300 if the exchange rate remains the same. Whilst this strategy might seem extremely profitable, there is a risk due to the hot money effect. If the central bank suddenly decides to raise interest rates, savers will look to convert their currency into yen to put into Japanese banks, so the value will rise.

For investors conducting the yen carry trade, a depreciation of the yen reduces their returns because their debt must be repaid in yen, and the exchange rate will now be more expensive when converting from pounds or dollars to yen. This recently occurred in 2024, when the Bank of Japan raised interest rates to 0.25%, resulting in a small global crash, where the S&P 500 dropped by over 6%. This is called an unwinding of the carry trade, as investors sell other assets to pay for these exchanges in currency (Bank for International Settlements, 2024). Whilst some may argue that monetary policy of other nations, such as the UK or the Eurozone, have a large impact on the rest of the world, Japan maintains a uniquely important position due to its volatile, large-scale investment from financial institutions around the world.

Overall, the widespread use of the yen carry trade causes a depreciation in the value of the yen, making them more price competitive relative to other nations, leading to exports from Japan being more competitive. As exports increase, a current account surplus is created in Japan, which accounted for 3.9% of GDP in 2025, leading to a much-needed increase in aggregate demand, which leads to economic growth. However, Japan's monetary policy decisions are now tied to this financial strategy, reducing the central bank's freedom to set policy and take a Japan-first approach, creating a conflict for the Bank of Japan where attempts to control inflation may eliminate export competitiveness: one of the only benefits of this low-rate environment. However, this raises a question of whether the benefits of export gains from a weaker yen and stability of global finance outweigh the potential for inflationary stability in Japan, which could help them recover from 'The Lost Decades'.

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## How much damage are companies really doing to our environment, and is sustainable energy shaping a different future?

*Kiriana Nepia*

These questions are becoming impossible to ignore. The planet is facing critical rising temperatures, extreme weather conditions, and a slowly shrinking supply of natural resources. At the root of this issue lie businesses, consuming disproportionate amounts of energy that is often sourced from non-renewables such as fossil fuels.

Studies found that 36 major fossil fuel companies such as Shell produced coal, oil and gas responsible for more than 20bn tonnes of CO<sub>2</sub> emissions in 2023. (2) These pollutant gases have a multitude of impacts on our everyday lives; from the global warming crisis to the water, we drink and even the microplastics present in our food. Resultantly, when companies burn fossil fuels, not only are they contributing to climate change but also harming public health and ecosystems.

The economic costs (financial consequences to society) of this environmental damage are staggering with The Guardian and the BBC highlighting research that estimates climate change has cost the world roughly \$16 million an hour, amounting to roughly \$38 trillion annually. (3)

Rising global temperatures are already causing more floods, droughts, and storms, disrupting supply chains (the stages between the initial raw materials and the finished product). The resources that companies depend on, such as oil and gas, are finite and rapidly becoming scarce due to exploitation, which is causing prices to causing significant price volatility, increasing input costs for businesses. In other words, the environmental damage caused by companies' energy use isn't just bad for the planet; it's bad for business too.

With recognition of the issue increasing, more businesses have begun switching to renewable energy sources like solar and wind. By 2023, nearly a third of the biggest companies had promised to get all their electricity from renewables in attempt to decrease their carbon footprints. Why? Because these clean energy sources are becoming cheaper and more reliable than ever and investors and customers are demanding that companies act accordingly to the changing standards of modernity. The Dasgupta Review on the Economics of Biodiversity, commissioned by the UK Treasury in 2019 (1) suggests solutions of making food and energy systems sustainable through technological innovations and policies that change prices and behavioural norms which allow for increased accessibility to greener production methods. Alternatively, the government could also invest in programmes that implement large-scale and widespread natural solutions to address the significant loss of biodiversity.

Energy efficiency is another way that companies have begun cutting their environmental impact. Simple changes like reducing lighting usage, switching to smarter heating systems, and investing in efficient machines can reduce energy use by up to 40% in certain industries. Exemplar studies (4) show that dividing up spaces can reduce lighting energy consumption by [anywhere from 20% to 40%](#) without affecting visual comfort. And further savings – as much as [20-60%](#) – can be achieved through smart lighting systems that use sensors to automatically adjust lighting depending on where people are within a space. Not only does this help reduce the damage on the planet, but it also saves large amounts of money which can be reinvested into capital spending by industries in items such as renewables. For example, some big retailers have saved billions by investing in energy-saving technologies, such as the company Two Blues Solar - a relatively new start-up organisation that aims to cover the price for solar

implementation onto corporate buildings while gaining revenue from the energy purchased. Some companies are going even further by generating their own renewable energy on-site, such as a factory powered by solar panels or a warehouse utilising its own wind turbines. To have available institutions for renewable energy, protects companies from the impact of price spikes in fossil fuels and increases reliability in energy sources.

However, the journey toward sustainability faces a major challenge: most companies only control a small part of their total emissions. The majority come from their supply chains; from the materials they buy to the products they ship. Tackling these Scope 3 emissions requires cooperation across industries. Smaller companies also struggle with the costs and steps needed to switch to sustainable energy due to the lack of revenue initially faced in terms of the firm's size within wider markets. Additionally, there's also the problem of "greenwashing", where some companies speak about and promote sustainability but don't back it up with real action. This information asymmetry can confuse consumers and investors as they cannot easily find a quantitative value for economic performance, making it harder to tell who is genuinely committed to protecting the environment. Transparency and honest reports are crucial if we want to trust companies' green promises.

Despite these hurdles, the momentum is clear. Companies leading the way in renewable energy and efficiency are not only helping the planet but gaining a competitive edge. They face fewer risks from changing regulations, attracting more loyal customers, and saving money on energy bills. Ultimately, the relationship between business and its impact upon the environment is changing. The outdated idea that economic growth must come at the planet's expense is being challenged by a new vision where sustainability and profit work simultaneously. This shift is vital, not just to slow climate change but to create new jobs, drive innovation, and build economies that can thrive in a rapidly changing atmosphere.

So, how much damage are companies doing and how much good can they do by embracing sustainable energy? Decisions made by businesses today will shape the world for future generations. If companies continue to invest in clean energy and efficiency, they can prevent environmental damage and lead us toward a healthier, more sustainable future.

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## How the increase in fuel prices will impact the UK's overreliance on car commuting

*Jacob Brewer*

For decades, the UK has been a nation which relies on cars. Whether it's the school run or the morning commute to the office, the private vehicle is the backbone of British movement. However, in recent years there have been numerous periods of volatility in global oil markets which have sent fuel prices skyrocketing. Following the 2022 energy crisis which was caused by the Russia Ukraine conflict, the total direct cost of the fossil fuel crisis to the UK economy reached an estimated £183 billion (Holder, 2025). While economists often argue that higher prices lead to lower demand, the reality of the UK's car reliance is more complicated. This article will argue that while rising fuel prices may eventually reduce car use, in the short term they highlight the inequality in our transport markets, where the opportunity to stop driving is a luxury not everyone can afford.

In basic economic theory, when the price of a good rises, the quantity demanded falls. However, fuel for commuting is price inelastic, meaning it is price insensitive. This means that because many workers have no viable alternative, such as reliable trains or buses, they continue to buy fuel despite the high cost. In the UK, many commuter towns have seen their local buses cut, meaning having a car is essential as there is alternative, as there is no alternative. Cranleigh, which is the largest village in England, doesn't have a railway station, so residents often face a 20-minute drive just to reach a transport hub such as Guildford. In the Guildford area, commuters spend an average of 58 minutes a day travelling (SurreyLive, 2024). This is the longest outside of London with nearly 70% of Surrey residents relying on a car or van to get to work (IPPR, 2025). For these people, higher fuel prices don't immediately lead to less consumption, they simply lead to less disposable income for food or heating. For these households, a spike in fuel prices isn't an inconvenience, it is a direct impact on their standard of living. This is a clear example of how markets can distribute income away from the working class toward energy providers.

Furthermore, the inequality associated with this issue is significant. The ability to escape rising fuel prices is currently tied to high incomes and wealth. High income commuters can often afford the high upfront cost of an Electric Vehicle (even second-hand EV prices averaged around £20,000 in early 2026) (The Electric Car Scheme, 2026) and the charging port installation, or they can afford to live in city centres where the city's transport links allows for walking or cycling. Meanwhile, those on lower incomes are often pushed to outskirts of cities where housing is cheaper, but transport links are poorer. They are trapped, becoming reliant on older, less fuel-efficient petrol cars. Recent data shows that the poorest fifth of UK households spend an average of 25% of their income on their vehicles if they own one, compared to just 9% for the richest households (IPPR, 2025). Furthermore, those that cannot afford a car end up paying higher public transport prices as they can't afford the upfront costs of a car altogether. Therefore, the market outcome of high fuel prices isn't just a reduction in carbon but an increase in transport poverty, where the cost of getting to work consumes a disproportionate share of a person's earnings.

However, an alternative perspective suggests that high fuel prices are the shock the UK needs to break its car habit. From a long-term environmental standpoint, expensive petrol acts as a price signal for change. It encourages businesses to maintain work from home schemes, which already account for roughly 44% of workers in parts of Surrey (IPPR, 2025) and pressures the government to invest in better transport infrastructure. If fuel remained relatively cheap, there would be little incentive for the massive structural changes needed to meet Net Zero targets. Also, the current high price of train fares makes driving more cost effective and more convenient, even with higher fuel prices. The pain of the high fuel

prices currently might be the only way to force the market to innovate, triggering creative destruction and provide better opportunities for sustainable travel.

In conclusion, while rising fuel prices put a dent in the UK's overreliance on cars, they don't affect everyone equally. For the wealthy, it is a nudge towards an EV, whereas for low-income commuter in a rural area, it is a financial burden. The current market for transport in the UK distributes opportunity unfairly, favouring those who can afford to use alternatives. Until public transport becomes a genuine, affordable competitor to the car, high fuel prices will continue to be a tax on the working class rather than a simple solution to congestion.

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## **Is Poor Nutrition Costing The Economy More Than We Think?**

*Daniela Vacca*

The extent of which poor nutrition imposes systematic economic costs (financial burdens placed on public services, and losses in workforce productivity) on the UK remains insufficiently recognised in political debates. While poor dietary choices are often framed as individual choices, the reality is more complicated: the price of food, marketing practises and the way it's labelled all play a significant role in shaping what people eat. This article will explore the economics consequences of Britain's failing food system and the reform required for meaningful change.

The food industry would have it believed that eating well is simply a matter of personal choice. But choice requires access, and access requires money. Research found that 1,000 calories of healthy food — fruit, vegetables, whole foods — costs £8.80, compared to just £4.30 for less healthy alternatives (The Food Foundation, 2023). That gap has widened considerably: healthy food prices have risen 21% over two years, against just 11% for unhealthy options. For lower income households, eating the government-recommended healthy diet would require 45% of their total disposable income, rising to 70% for families

with children. This not only causes a failure of willpower but also results in a market failure of information asymmetry, where consumers lack the knowledge to make fully informed choices, leading to a negative externality, where the true cost of poor nutrition is not accounted for by the food industry, but instead passed on to the NHS and wider society.

Additionally, the combination of advertising and marketing intensifies the issue by shaping consumer behaviour. Many of these products lack the nutritional quality needed to justify their healthy branding, so firms instead use advertising to influence consumer perceptions and create demand. As a result, rather than selling based on nutritional value, they sell you an emotion – associating the product with warmth, happiness, beauty and social connection through repeated exposure. Furthermore, over a third of all food and soft drink advertising spend (36%) goes on confectionery, snacks, desserts and soft drinks whereas only 2% is on fruit and vegetables (Advertising Standards Authority, 2023).

However, this imbalance is not an accident; it is a strategy. Products marketed as healthy — e.g. fruit smoothies, protein bars, low-fat yoghurts — are frequently loaded with preservatives, additives, artificial flavourings and more. Labels proudly declare ‘no added sugars’ while the small print sites concentrate, maltose, sweeteners and other abstract words that are in fact sugars – they just have more marketable names. Research by Action on Sugar found that 57% of products sold as healthy fruit snacks contained more free sugars (sugars added to food and drinks by manufacturers) per 100g than Haribo Starmix — yet they sit next to labels reading "made from real fruit" and "one of your five a day."

Consequently, surging obesity rates compromise children's cognitive development, trigger weight-related mental distress, and degrade physical health. Subsequently, fewer children reach their potential in education, so there is a less skilled workforce leading to lower labour productivity, causing the economy to grow slower. On current trends, at least one in twenty of those children born in 2022 will not survive to see 65 at all (Food Foundation 2023). This means even fewer workers and taxpayers, resulting in greater long-term pressure on public services.

Excess weight alone costs the UK approximately £74 billion every year — in NHS treatment, lost workforce productivity, and reduced life expectancy (Professor Tim Jackson's ‘Food, Farming and Countryside Commission’ report, 2024). The total cost of Britain's unhealthy food system reaches £268 billion annually, accounting for healthcare, social care, welfare spending, lost productivity and the human cost of chronic disease. To put it in perspective: the UK's entire annual healthcare budget is £292 billion (HM Treasury, 2024). As a result, the economy is spending nearly as much dealing with the consequences of poor nutrition as we spend on all of healthcare combined.

Not everyone agrees that government intervention is the answer. Supporters of a market-led approach argue that consumer demand is already driving change — healthy snacking sales rose by 39% in 2023 compared to 2022 (Food Manufacture, 2024), suggesting the market is self-correcting without the need for regulation. On this view, the role of government should be to inform consumers rather than restrict industry. However, rising demand among those who can afford healthier options tells us very little about those who cannot. The market may be responding to wealthier consumers, but it is failing the most vulnerable — and it is those households bearing the greatest share of the economic cost

What we need is a restructuring of the system itself — making the healthy choice the affordable choice and closing the information gap tricking consumers into making unhealthy choices. Providing the government-recommended Eatwell diet to the whole population would cost less than 25% of what the UK currently spends dealing with the consequences of not doing so (Professor Jackson, 2024). In

other words, fixing this is four times cheaper than ignoring it. That means proper regulation of health claims on food labels, rebalancing advertising spend and making it financially possible for every family to eat in a way that keeps them healthy, productive and out of the NHS. Above all, it means holding the food industry to account for the true cost of what it produces — not just the price on the shelf.

**Poor nutrition is not a personal failure. It is an economic one and until we start treating it that way, the bill will keep growing.**

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## Why Do Wars Make Energy So Expensive?

*Richard Powell*



Gulf war in 1990: Millions of barrels of oil into the Persian Gulf. The spill covered an area 100 miles by 40 miles (Iraq)

When energy bills suddenly rise, most people don't think about conflicts happening thousands of miles away. Yet wars and geopolitical tensions (strained political, diplomatic, and economic relationships between nations) are one of the biggest reasons energy prices can spike so quickly.

One of the most immediate effects of war is a disruption in energy supply. Many of the world's major energy producers are in politically unstable regions. Conflict can damage or shut down oil fields, pipelines, refineries, and shipping routes.

Wars themselves require enormous amounts of energy. Military vehicles, aircraft, ships, and logistics operations all rely heavily on fuel. This surge in demand is often price inelastic, meaning how sensitive the demand or supply of a good or services is to a change in its price, meaning militaries purchase fuel regardless of the cost, which places upward pressure on already strained global supplies. The U.S. Department of Defence (now Department of War) uses about 12.6 million gallons of fuel per day, placing it as the largest institutional consumer of petroleum in the world.

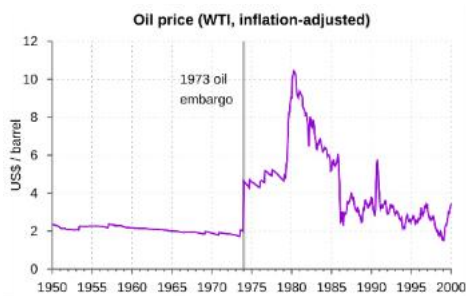
Recently, due to the ongoing war between Israel and Iran, with the involvement of the US there has been a significant increase in energy prices, especially oil, as the Strait of Hormuz has been closed since the 28th of February. This has been a major energy crisis, as it transports 20–25% of global oil consumption daily. Additionally, approximately 20–30% of the global liquefied natural gas trade passes through the Strait. When authorities restrict or close this route, global supply sharply declines while demand remains relatively constant, resulting in significant price increases.

This crisis is portrayed globally in different countries worldwide. For example, The Guardian has stated, "Fuel-price protests cause chaos in Ireland and spread to Norway," as 100+ petrol stations ran out of fuel due to high costs and supply disruption in Ireland, and in Norway fuel prices rose 23.6% in just one month (March 2026).



Vehicles queue on O'Connell Street in Dublin on the fourth day of the national fuel protest. Photograph: Liam McBurney/PA

Even in England, the rising oil prices have caused a nationwide ripple effect on food prices. This is because the increasing scarcity of fuel further leads to transport having less and less fuel to distribute goods across the entire country, this creates cost-push inflation when the overall price of goods and services rises due to increased costs of production, as businesses pass on higher costs to consumers. This in turn would lead to a decrease in consumption of goods like food and petrol for cars. As energy becomes scarce, prices rise despite weak demand as aggregate (Total) demand (AD) is decreasing. In an economy already facing a recession, this increases the negative output gap and may lead to stagflation, where prices rise and output falls.



Another historic war that led to a global energy crisis and supply shock across the globe was the Yom Kippur War in 1973, which led Egypt and Syria against Israel. Many other countries involved in the war were part of the Organization of the Petroleum Exporting Countries (OPEC), such as Saudi Arabia and Iraq. These countries responded to Western support for Israel by cutting oil production and imposing an embargo (official restriction that prevents trade) on exports to certain countries

led by Saudi Arabia. This caused a significant reduction in global oil supply at a critical time, as a result, oil prices rose exponentially, quadrupling within a year.

Some people may preserve fuel, especially oil, as it is essential for a country. This is something that the current president of the United States (Donald J Trump) preaches on a regular basis. The White House also presents fuel as far more than just a basic commodity, it is viewed as a central pillar of the economy and national power. Under Donald Trump, energy is framed as essential for driving economic growth, since industries like transport, manufacturing, and agriculture all depend heavily on affordable fuel. However, the White House official website states that "In recent years, burdensome and ideologically motivated regulations have impeded the development of these resources". This presents oil not just as an essential but as an absolute need for a country's growth and stability, and if the supply is low, then it will create mass disruption globally.

Wars make energy more expensive as they disrupt the balance between global supply and demand. When conflict damages oil and gas infrastructure, such as blocking shipping routes, or forces countries to cut trade through areas, the available supply of energy drops, but demand usually stays the same, pushing prices up. Wars also make transportation more expensive and can force countries to rely on longer, costlier supply routes, which takes way more time.

## Should AI Growth be Regulated?

*Daniel Lambkin*

AI growth is the rapid, technological development of artificial intelligence across industries such as healthcare, finance, and education. Within firms, this enables workers to complete day-to-day, time-consuming tasks with increased accuracy and efficiency which boosts the productivity of labour for firms. AI is developing and growing at an unpredictable rate across multiple industries, raising not only political and economic concerns but also ethical concerns as well. AI expansion contributes to the growing division between innovation and control. On one hand, 76% of Americans argue that AI should be regulated to prevent economic harm such as job displacement. Opposingly, others believe that it should not be regulated due to the risk of slowing down progress and limited international competition, also restricting innovation especially creative destruction, (the economic process where new innovations, technologies or business models replace old ones).

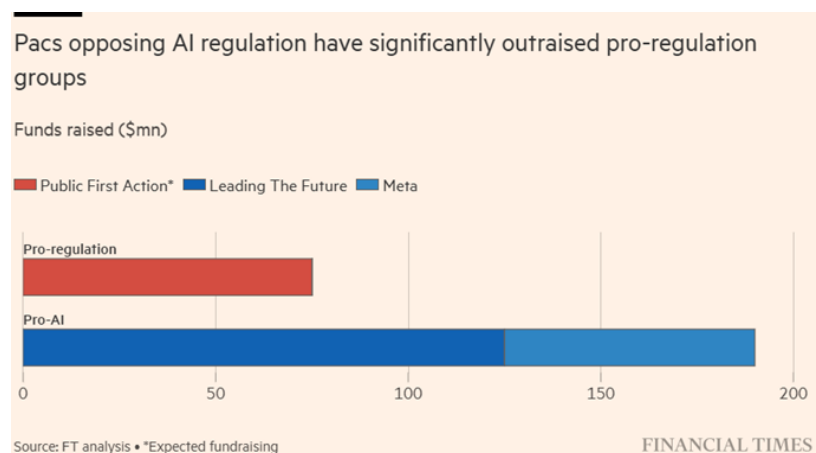
Overall, implementing regulation on AI would be beneficial to an extent: ensuring safety, equality, and low unemployment, assuming innovation and growth would not be restricted. AI should be regulated for several reasons, a few being:

**Misuse/Exploitation** – With the expanding usage of AI across all industries AI will be overused or exploited when completing a task. A common example of this is students using AI to complete assignments, as a result no learning or understanding is gained by the students.

**Avoid significant technology skills gap** – There is an increasing divide between individuals and firms who are willing to learn and embrace AI and there are those who are not, instead they are afraid of it, eventually falling behind everyone else. As a result, widening the technological skills gap.

**Prevention of industrial decline** – AI is becoming increasingly developed by the day, completing tasks and entire job roles with ease in which most humans would struggle to do. As AI technology develops, firms can substitute human labour with AI to reduce costs on wages. While this increases productivity, it causes structural unemployment as the skills of displaced workers no longer match the requirements of the changing labour market.

Famous, wealthy names like Mark Zuckerberg, Joe Lonsdale, Greg Brockman, Alex Bores and more have invested at least \$265mn in collective financial firepower both for and against regulation. Alex Bores is the leader of the Public First Action which is the one major tech company to back increased regulation of AI. Public First Action's agenda is to “protect kids, workers and families from AI risks, and elect candidates who support guardrails on AI”, contributing to the belief that AI growth should be regulated in order to “protect workers”, this is referring to the substantial skills gap that occurs as a result of the technology evolving faster than traditional education and training can adapt. Furthermore, resulting in an increase in structural unemployment due to occupational immobility.



Whereas Meta, led by Zuckerberg, has warned of a “growing patchwork of inconsistent regulations that threaten homegrown innovation and investments in AI”- what does this show for the development of AI and risk managements associated.

Leading the Future is a political action committee backed by Trump megadonors such as OpenAI co-founder Greg Brockman, venture capital giants Andreessen Horowitz and Palantir co-founder Joe Lonsdale. Its leaders claim that state level AI regulation would “stifle innovation and enable China to gain global AI superiority,” supporting the pro-AI argument as to how AI regulation will restrict innovation by limiting the technology’s full potential which could cause possible, future innovations. However, it is easily appreciated as to why individuals and companies (like, Meta) may be pro-AI due to the multiple benefits that come with this substantial AI growth:

Increased productivity and efficiency – AI can automate routines and step by step instructions of day-to-day tasks across all industries such as education, where students can receive help through AI essay marking or knowledge quizzes.

Boosts innovation through creative destruction – Creative destruction is the economic process where innovation dismantles traditional business structures and replaces them with new, more efficient ones, creating a temporary monopoly between each technological jump, revealing another question as to whether or not monopolies are beneficial for the economy.

Boosted innovation stimulates economic growth partially by increasing the Productivity Possibility Frontier through technological improvements in labour and capital, allowing tech companies to pursue in artificial intelligent development with no regulation to hold them back in order to achieve full employment of this new groundbreaking technology.

### **So, should AI be regulated?**

In general, the government should regulate AI growth, however only to the extent where regulations are strict enough, acknowledging the risk of increasing corporate dictator-like influence and other potential risks that could harm society. However, if the regulation is too strict it could restrict innovation prohibiting economic growth whilst simultaneously limit productivity and efficiency for labour and capital. The best approach when setting the regulation is a balanced, flexible constraints that allows for AI evolution whilst also preventing inequality and monopolies, as well as unsafe or unethical AI exploitation.

The question at hand is not whether AI should be regulated, but to what extent regulations should be put in place to attempt to counteract and control this unprecedented, rapidly changing technology.

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## PART 2: OUTCOMES

### ECONOMIC SYSTEMS, POWER & DISTRIBUTION

Economic growth does not affect everyone equally. Behind headline statistics lie important questions about who benefits from economic activity, who bears its costs and how wealth, income and opportunity are distributed across society. The articles in this section explore living standards, inequality, conflict and austerity, highlighting how economic and political decisions can have very different consequences for different groups. Together, they examine the relationship between economic systems, power and the distribution of resources in the modern economy.

The Price of Power: How Modern Conflict Reshapes Global Inequality - Jay Plested

How Has Government Austerity Since 2010 Caused Economic Inequality? - Dylan Crowley

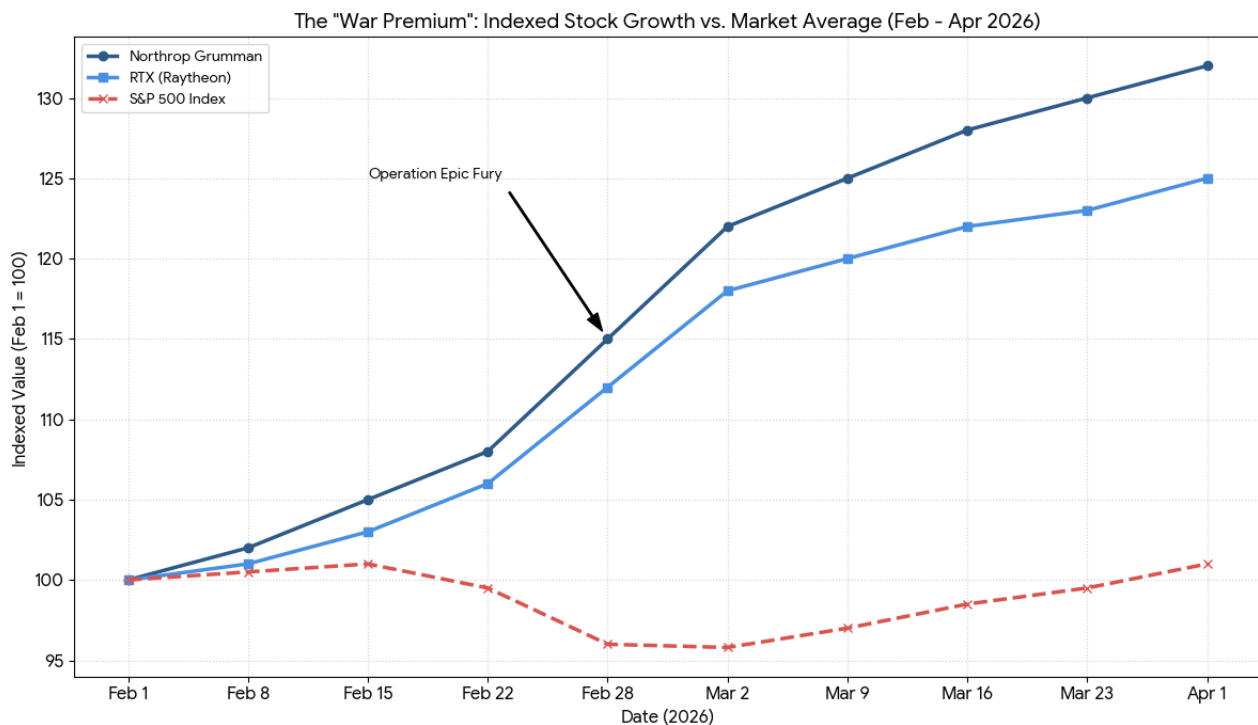
The Cost of Living: Easier or Just Changing Shape? - Jude Clarke

# The Price of Power: How Modern Conflict Reshapes Global Inequality

*Jay Plested*

Global conflicts are often measured in territory gained or lost, yet their most enduring legacy may be the widening chasm of economic inequality. While the immediate effects appear localized to the battlefield, modern warfare fires ‘shrapnel’ at the entire global economy. In 2026, the escalation in Iran serves as a significant case study for this phenomenon, illustrating a disturbing paradox: while conflict often acts as an engine of desperation for the many, it can simultaneously serve as a source of record-breaking profit for a select few.

The divergence is most visible in the decoupling of the "war economy" from broader market trends. As illustrated in Figure 1, the first trading day following Operation Epic Fury on March 2nd, 2026, saw a sharp bifurcation between defence indices and the wider market. While the S&P 500—a proxy for the diversified portfolios of average households—largely stagnated, global defense firms experienced a ‘conflict premium.’ Northrop Grumman rose by 6%, and Palantir climbed 5.8% in a single session. This suggests that the financial benefits of escalation are increasingly concentrated within specialized sectors, while the average consumer faces the negative externalities of rising energy costs and market volatility.



However, the most acute impact of this divergence is felt within the conflict zones themselves. In Iran, the 2026 military escalations led to a collapse of the Rial, which hit record lows against the dollar. This devaluation functions as a regressive tax, disproportionately impacting those without access to "hard" assets or foreign currency. By April 2026, food inflation in the region surged above 70%, forcing low-income households to spend an even greater share of their earnings on survival. While elite groups may maintain their wealth through capital maneuverability and digital assets, the middle and lower classes find their purchasing power evaporated. This trend is not exclusive to Iran; similar patterns of domestic "hollowing out" have been observed in other 21st-century regional instabilities, where the domestic workforce bears the brunt of currency devaluation.

To evaluate this trend, one must consider the historical "Great Leveler" theory. Scheidel (2017) argued that "total wars," such as World War II, historically reduced inequality by destroying elite capital and forcing governments to implement massive social welfare programs to ensure domestic mobilization. In 1940, the requirement for mass conscription gave the working class significant leverage over the state.

Yet, the 2026 Iranian context suggests this historical rule may be weakening in the age of asymmetric warfare. Modern conflict is increasingly capital-intensive rather than labor-intensive. The use of AI-driven drones and precision missiles reduces a state's reliance on mass social mobilization, potentially removing the incentive for governments to "purchase" the loyalty of the poor with social reforms. Furthermore, the digitalization of wealth allows the modern elite to engage in "capital flight," moving assets instantaneously across borders—a luxury not afforded to the factory owners of the 20th century. This shift suggests that modern conflict may act more as a wedge than a leveler.

A more balanced perspective, however, must acknowledge that this outcome is not universal. In some contemporary instances, conflict can still trigger redistributive effects. In nations with strong democratic institutions, war-time exigencies often lead to expanded veteran benefits, state-funded technological innovation, and urgent infrastructure repairs that can create localized employment. Furthermore, increased state spending in response to regional threats can, in specific circumstances, stimulate domestic manufacturing in sectors beyond just defense, providing a temporary buffer against stagnation.

Ultimately, the 2026 conflict in Iran highlights a shifting plate in global economics. While conflict can occasionally trigger state spending that benefits certain domestic sectors, the prevailing trend in the digital age appears to favor the maneuverability of global capital over the stability of local labor. If conflict remains a source of profit for distant shareholders while functioning as a driver of hyperinflation for local populations, the global wealth gap is likely to continue its expansion. Peace, therefore, is not merely a diplomatic goal; it is a fundamental requirement for a more balanced and equitable global economy.

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## How has Government Austerity from 2010 Caused Economic Inequality?

*Dylan Crowley*

Government austerity is when a government cuts spending and raises taxes. This policy is usually implemented when the government is running a budget deficit, to reduce national debt. In the UK, austerity was active from 2010 to around 2020, including the early COVID era. It was first introduced by the Conservative–Liberal Democrat coalition in 2010 and continued under David Cameron and Theresa May. Austerity involved major welfare reforms, large cuts to local government funding, and public sector pay freezes. These measures caused significant harm to financially vulnerable groups, as they reduced support for those individuals and for workers in public services. While some form of austerity may have been necessary after the 2008 financial crisis, it has significantly increased economic inequality.

One of the main areas affected was welfare, where many parts of the system were changed. Changes included capping benefits (reducing the total amount of welfare benefits a working-age household can receive) and reductions in housing benefits (supporting low-income individuals pay rent). These changes contributed to increased wealth inequality because they disproportionately affected the lowest earners, who lost a larger proportion of their income. Tax increases for the lower class were introduced while lowering the rate of the top bracket from 50% to 45%, lowering the disposable income needed by the lower class and allowing the wealthy to collect more wealth. This massively limited their ability to earn and increased the likelihood of falling into poverty. As only the poorest groups were significantly impacted by these cuts, the system of wealth redistribution became weaker, leading to higher levels of income inequality. On average, 22.8% of individuals on benefits' income comes from benefits, highlighting their reliance on this support.

Another area affected was local governments. Following the 2010 spending review, the conservative/liberal democrat government reduced local council budgets, leading to a reduction in funding for council provided services such as giving direct grants to charities (food banks and community kitchens) and crisis/resilience funds (directly giving money to families to help cover things such as food and bills). Removing or reducing the availability of these services directly lowers quality of life for lower-income families but has no impact to higher-income households who don't need these support systems for their day-to-day living as such services act as a form of income for poorer communities, so indirectly reduces income. The scale of 'food poverty' (The inability to afford or access an adequate, nutritious diet) has increased massively, with a study from The London School of Economics stating that the delays and changes in benefit payments were responsible for 28% and 13.5% increases in the usage of food banks.

Changes to labour regulations also contributed to rising economic inequality. Austerity played a key role in the growth of insecure and lower-paid work where public sector wages were subject to years of pay freezes and caps. A 1% wage increase cap for public sector jobs was introduced in 2013, which was well below the inflation rate of 2.6%, making their wages less valuable in time. This led to a decline in morale and, subsequently, productivity in the public sector. It also increased inequality by limiting workers' ability to increase their earnings, even if they were willing to work more hours. Additionally, the rise of low-regulation zero-hour contracts has made employment more insecure, particularly for lower-income workers, as these contracts are concentrated in low-paid jobs. This has widened the gap between high- and low-income earners, as those in insecure jobs have fewer opportunities to increase their income compared to those in stable, high-paying roles. Leading to the bottom 10% of earners having an estimated amount of wealth of around £12,835 and the top 10% having 17,820% more wealth.

However, despite these negative effects, austerity was arguably necessary. In 2010, the UK budget deficit was around 9.9–10% of GDP, approximately £160 billion, which was highly unsustainable. Without intervention, this could have led to further economic instability and potentially worsened conditions for low-income individuals, even more than austerity did. As if the UK went into another economic crisis without significantly lowering borrowing, such as COVID-19 where borrowing rose to 17% of GDP, it could trigger a large amount of fiscal and monetary changes high interest rates and huge debt-interest payments which would lead to the same cuts in government spending but on a much more extreme scale. This would have the same impacts as austerity had but would be likely to last a lot longer and create much more poverty.

In conclusion, although austerity was needed to reduce the budget deficit of 10% following the 2008 financial crisis, it reduced in a manner that has very clearly increased economic inequality in the UK. The cuts to welfare, local government funding and public sector pay have disproportionately affected lower-income households in comparison to the higher-income households, massively reducing social protection in the process. While austerity helped improve government finances, increasing their revenue, it came at the cost of greater inequality, suggesting it had been designed at the expense of the lower class.

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## The Cost of Living: Easier or Just Changing Shape?

*Jude Clarke*

The phrase “cost of living crisis” has dominated economic discussion in the UK over the past few years. While the intense inflationary pressures of 2021–2023 have eased, it is less clear whether living standards have genuinely improved. To understand the current situation, it’s helpful to compare the causes and consequences of the original crisis with the economic pressures households face today. Although inflation has fallen significantly from its peak, this does not necessarily mean life has become easier.

The cost of living refers to the amount of money required to maintain a given standard of living, including spending on essentials such as food, housing, transport and energy. Changes in the cost of living are often linked to inflation, which measures the rate at which the general price level rises over time. In the UK, inflation is measured primarily through the Consumer Prices Index (CPI), which tracks the average price changes of a representative basket of goods and services purchased by households. The figure below gives a visual representation of how CPI has fluctuated in recent years.



The original cost of living crisis was largely driven by a series of global supply-side shocks. Following the COVID-19 pandemic, demand recovered rapidly as economies reopened, but global supply chains remained disrupted. This mismatch between demand and supply contributed to rising prices across many sectors. At the same time, Russia’s invasion of Ukraine caused significant increases in global energy prices. As the UK is heavily exposed to international gas markets, higher energy prices fed through to household and business costs.

The result was a period of severe cost-push inflation. According to the Office for National Statistics, CPI inflation peaked at 11.1% in October 2022, its highest level for over forty years. Rising energy and food prices reduced households' real incomes, meaning that although nominal wages were increasing, they were not keeping pace with inflation. Consequently, many households experienced a fall in their purchasing power and were forced to reduce spending, draw on savings, or increase borrowing. The effects extended beyond household finances. As consumers became more cautious, confidence weakened and concerns about future living standards increased. The crisis therefore had both economic and psychological consequences, with many households feeling financially insecure even when employed.

Today, the economic environment appears more stable. Inflation has fallen considerably from its 2022 peak, moving closer to the Bank of England's target rate of 2%. However, lower inflation does not mean that prices are falling. Instead, it means that prices are continuing to rise, but at a slower rate. The substantial increases seen during the crisis remain embedded in the price level, meaning households are still paying considerably more for many everyday goods and services than they were before 2021.

There are also reasons to believe that inflationary pressures could persist. Ongoing geopolitical tensions in the Middle East, specifically the war in Iran, has created uncertainty within global energy markets. If oil and gas prices rise significantly, production and transport costs for firms may increase, potentially leading to further cost-push inflation. However, the extent of this effect depends on how long energy prices remain elevated and whether firms choose to absorb higher costs or pass them on to consumers. Recent analysis by the Resolution Foundation suggests that higher energy prices linked to geopolitical instability could leave the median working-age household around £480 worse off over a financial year. This highlights how external shocks continue to influence living standards even after inflation has fallen. What makes the current situation particularly challenging is that many households enter it from a weaker financial position than before the crisis. Savings accumulated during the pandemic have been depleted for many families, while higher mortgage costs and rents have placed additional pressure on disposable incomes. Although nominal wage growth has strengthened in recent years, improvements in real wages have been uneven across sectors and income groups.

The burden is also not shared equally. Lower-income households tend to spend a larger proportion of their income on necessities such as food, energy and housing, sectors that experienced some of the largest price increases. As a result, inflation acts in a regressive manner, disproportionately affecting those with the least financial flexibility. Furthermore, lower-income households typically have a higher marginal propensity to consume, meaning they are less able to absorb rising costs through savings. Even relatively small increases in prices can therefore have a substantial impact on their living standards.

Have things become easier? In some respects, yes. Inflation is significantly lower than it was during the height of the crisis, energy prices have fallen from their peak, and real wages have begun to recover for many workers. Government support measures also helped to cushion some of the worst effects of rising household costs. However, these improvements should not be overstated. The price level remains substantially higher than it was before the crisis, and many households continue to face pressure from housing costs, food prices and economic uncertainty. While the pace of deterioration has slowed, this is not the same as a return to previous living standards.

## PART 3: BEHAVIOUR

### BEHAVIOUR, COMPETITION & MARKETS

Markets are shaped by human behaviour. Consumers, firms and investors do not always act with perfect information or complete rationality, and the incentives they face can produce outcomes that are not always socially desirable. The articles in this section explore how psychology, technology and competition influence decision-making, from consumer spending and online fraud to artificial intelligence, market power and strategic behaviour. Together, they examine the forces that shape modern markets and the challenges of ensuring that markets serve the wider public interest.

**Artificial Intelligence: Bubble or Real Development? - Chen Liang**

**Are Companies Engineering Consumers to Spend More Money? - Elisa Mihasan**

**How effective are PSR rules in the Premier League? - Isaac Littlecott**

**Can Game Theory Be Used to Explain Behaviour? - Taalay Ullah**

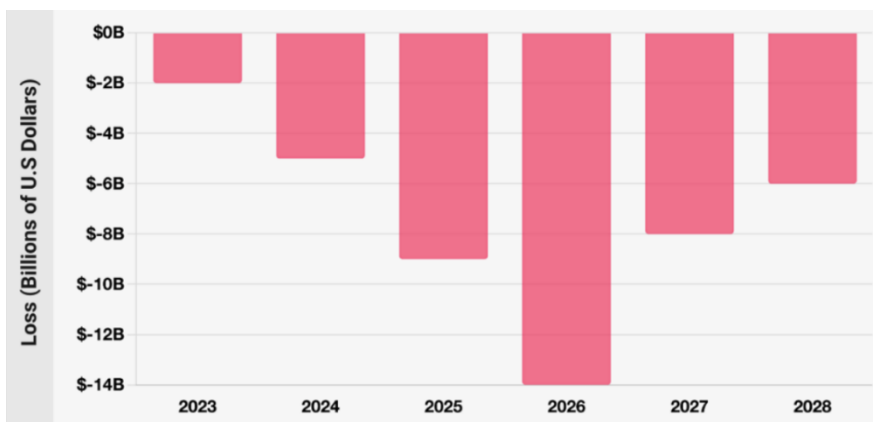
**How Behavioural Economics Plays a Part in Microtransaction Fraud - Maddie Kirkham**

## Artificial Intelligence – Bubble or Real Development?

*Chen Liang*

Is the perceived value of Artificial Intelligence (AI) indicative of its capabilities or is it merely a target of investment hype? Taking the world by storm in the decade or so, it has become a virtually omnipresent topic as the IT sector sees huge growth year upon year. Capital expenditure in this sector has been at an all-time high with OpenAI recently having the largest private fundraise in history at 110 billion USD (Forbes, 2026) and the bank Goldman Sachs predicting there would be 500+ billion dollars of investment in AI in the 2026 calendar year. The sheer volume of investment in this product would imply that there are high hopes placed in its value: as a new technology, we should expect AI to decrease firms' costs of production and shift the supply curve outwards by augmenting productivity in the workforce. However, there exists a stark monetisation gap between the influx of currency going in versus the actual revenue, dividing investors' opinions. Whilst some may argue there is overspeculation and hype in the private sector, I believe the growth in infrastructure in the public sector likely is a sign of real development.

Firstly, what exactly is a bubble? As Joseph Stiglitz put it, a bubble exists “when 'fundamental' factors do not seem to justify such a price” - in other words, the sole reason for price increases is derived from future expectations. At some point, investors will realise the “true” value of the good (which is much lower than what the inflated price suggests) and so everyone tries to simultaneously sell, causing a price crash due to a huge supply surplus. Personally, I view AI as only partially fulfilling this definition as its capabilities are indeed improving in real time, thus giving it value for a reason other than investor optimism. OpenAI's current valuation at \$852 billion despite consistent losses numbering in the tens of billions every year (see fig. 1., below) could be a sign that its value is overestimated by investors. One warning sign is the “productivity paradox”, essentially questioning that despite the omnipresence of AI, why haven't productivity and growth skyrocketed? Daron Acemoglu, 2024 Nobel prize laureate, predicted that over the next decade, only 4.6% of jobs will become meaningfully automated (The Simple Macroeconomics of AI, 2024). His estimate contradicts the view of many optimistic investors, highlighting the fact that AI's impact is greatly hampered by the number of tasks it can complete autonomously.



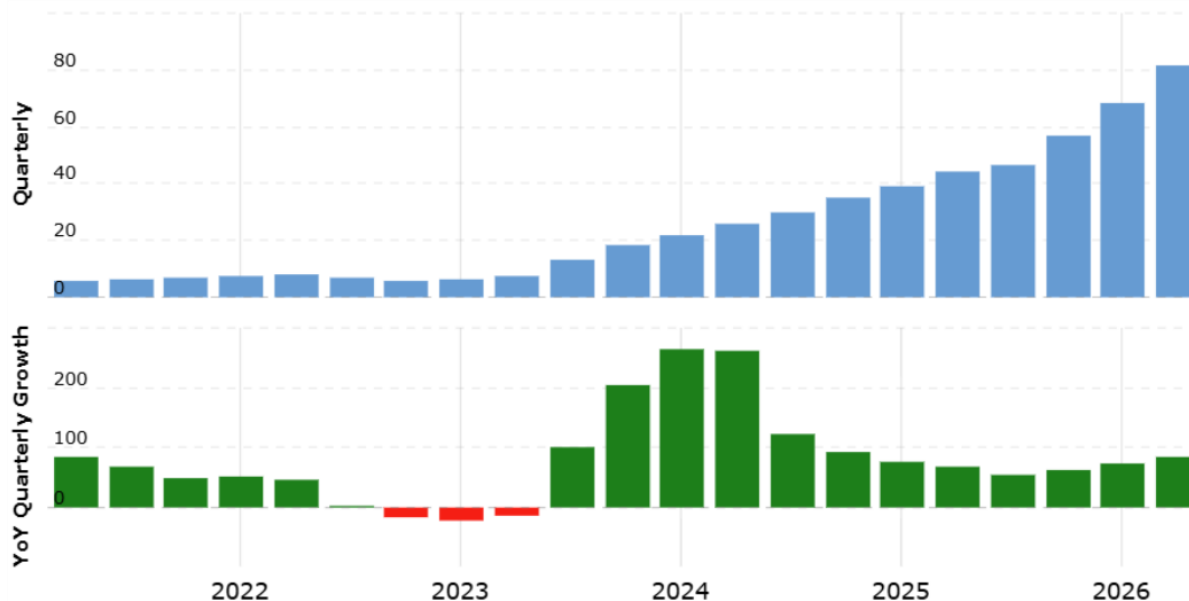
**Fig. 1. OpenAI Profit Losses – projections past 2024 (Taptwicedigital, 2024)**

Despite some pessimistic views especially regarding the private sector, there has been evidence of real development. In contrast to the dot-com Bubble of the 2000s, big

tech/AI companies can generate its own Free Cash Flow (FCF - operating cash flow - expenditure) instead of relying solely on Venture Capital (financing for startups), proving the market can mature and sustain itself. One indication of AI success is the huge growth of Nvidia, which can be seen as a proxy for AI investment, reporting 216 billion in revenue in 2025 with 65% in year-on-year growth (see Fig. 2.,

below). Several facets of this company point towards AI being permanent: it has ~100 billion in non-cancellable purchases from other tech giants that are to be fulfilled in the next year, unlike dot-com, which was characterised by inflated valuations but no orders. Furthermore, Nvidia’s huge margins (~75%) on its hardware chips give it a monopoly-like nature that aligns with the market behaviour when a new innovator in technology is able to charge exorbitant prices for its differentiated product. Overall, the statistics regarding Nvidia’s revenue prove that the hardware it produces will continue to be relevant and thus acts as a sort of “insurance” on AI’s value.

**Fig. 2. – Nvidia’s Quarterly Revenue (Billions of US \$) and Year on Year Quarterly Growth% (Macrotrends, 2024)**



There is a lot more nuance regarding the AI market, and it is highly unstable even with all the liquidity it has taken (high liquidity allows assets to be sold efficiently without causing fluctuation). One notable example was the announcement of DeepSeek’s capabilities in January 2025 - the shock that a Chinese startup could achieve comparable capabilities at a fraction of the cost and computational power caused AI shares to drastically plunge, with Nvidia’s stock falling 17% (\$589bil) overnight, the largest market capitalisation fall in US stock market history. If the development of software far exceeds its need for hardware like data centres, it could leave them as stranded high-risk assets. Resultant ripple effects of entry of said low-cost firm into an industry perceived with insurmountable barriers expose the contestability (difficulty) of market entry – DeepSeek’s emergence suggests that Nvidia’s monopolistic profits may not be sustainable in the long run when there is more competition. Despite a temporary crash, an increase in contestability leads to allocative efficiency and AI becoming more accessible as price falls, leading to real development as the whole of society benefits.

Ultimately, I believe the AI market can be seen as a shift to a new technology rather than a speculative bubble. The creation of infrastructure networks such as data centres and optimised hardware lays the groundwork for future improvements in terms of productivity. Although the high cost of some private shares may be an indicator of a bubble, AI has proven to be able to still acquire FCF, cementing its status as something more than temporary. One caveat to this is if the productivity and monetisation AI offers never catches up to the huge investment into hardware, it could lead to the eventual contraction of demand in the market and a collapse in the prices as its perceived utility falls. However, Carlota Perez

argues that paradigm shifts in technology often begin with a “frenzy phase” of speculative investment and transition to a “deployment phase” where the potential of the technology is achieved, possibly justifying the current spending as a part of an economic cycle rather than a sign of a bubble. In all, the returns of certain AI developing firms remain uncertain in the foreseeable future, but the impact of real infrastructure being developed is permanent and a sign of real development (ie societal progression) even if its full impact remains unknown.

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## Are Companies Engineering Consumers to Spend More Money?

*Elisa Mihasan*

In today's digital economy, spending money has become practically effortless. With a few taps on your phone, you can turn curiosity into a purchase within seconds. This raises an important ethical question: are people simply choosing to spend more, or are companies deliberately engineering our behaviour to make consumers spend more? While firms argue that they are responding to consumer demand, there is growing evidence that many modern platforms, such as TikTok, are designed using psychological data and behavioural economics to shape the choices consumers make to try to influence consumer decisions. In this case, the issue is not just whether companies persuade us, but how far they go in influencing decisions on a personal level.

One apparent reason this debate is important is because of the rapid rise of online shopping and social media commerce. Companies like Amazon collect vast amounts of user data on preferences, search history, and online behaviour. "Ofcom" recorded a survey in 2024 stating that around 84% of adults buy goods or services online and these purchases can now be made directly through social media platforms such as Instagram and Facebook Marketplace, which allow for a quicker checkout process and therefore more impulsive purchasing.

With firms often collecting detailed consumer data, algorithms use this data to personalise recommendations and advertisements, so consumers face more relevant and tempting choices, increasing the probability of impulse purchases and overall spending.

Companies also use behavioural techniques – applications of psychological principles to understand and improve economic decision-making- to shape demand. Evidence suggests that consumer behaviour is typically far from rational. According to a 2023 survey recorded by "Slick Deals", 89% of consumers admit to making impulse purchases, with the average person spending around £3,300 annually on unnecessary items. The Competition and Markets Authority describes "online choice architecture" as "the way choices are presented and arranged online, including ranking, layout and design features that affect consumer behaviour". These features create false urgency in consumers, such as countdown timers or messages like "only 1 left in stock," which work due to consumers' fear of losing out on these products.

According to the UK's Office for National Statistics, promotional pricing (a short-term strategy where products or services are offered at temporarily reduced prices) significantly influences purchasing decisions, with statistics showing that around 70% of consumers are more likely to buy items on sale.

Digital platforms also maximise consumer engagement with features like infinite scrolling and pop-up notifications to capture users' attention. The longer users remain on an app, the more advertisements they encounter, which increases the probability of conversion, in turn, boosting firm revenue. Social media platforms have gone further by incorporating e-commerce into their platforms. According to a survey recorded by "Statista" in 2024, over 25% of UK consumers now purchase directly through social media platforms.

Critics argue that these methods promote overconsumption in the economy. A report by Barclaycard in 2023 found that 44% of consumers regret purchases made during major sales events like Black Friday. This indicates that many purchases are driven by short-term impulses rather than real need and long-

term use. This can result in inefficient use of resources and reduced consumer well-being. In contrast, companies have always tried to influence consumer behavior as much as they can, from store layouts to TV ads. In this case, digital marketing is just a more data-driven evolution of traditional methods. Consumers still have the power; they ultimately decide whether or not to buy a product.

Supporters of this view also argue that personalised recommendations can genuinely improve choice by helping consumers find products they want, efficiently. Therefore, personalised recommendations can improve market efficiency. By matching consumers with products, they are more likely to value, it leads firms to reduce wasted time and improve satisfaction. In competitive markets, companies that fail to meet consumer preferences and demand will lose a large amount of market share. This shows that consumer choice plays a very important role in success within a competitive market.

Higher consumption will boost overall demand, which is the total need for goods and services in an economy during a specific time and at a certain price level. This can lead to economic growth, more jobs, and higher tax revenue. Consumer spending accounts for over 60% of GDP, as shown in the formula  $AD = C + I + G + (X - M)$ .

Encouraging spending will stimulate economic activity, especially during slow growth or recessions. However, concerns persist regarding the balance of power between companies and consumers. As algorithms become smarter, they can predict and influence behaviour more easily and accurately. This brings ethical questions about whether these practices move from persuasion to manipulation, especially for younger and more vulnerable consumers.

In conclusion, while consumers are not completely controlled by companies, firms are increasingly engineering environments that encourage higher levels of spending through data collection, behavioural insights, and platform design. The real issue is therefore one of balance, as persuasion is part of business, but when a design starts to exploit human weakness too effectively, the line between marketing and manipulation begins to be harder to distinguish. As digital technology continues to evolve, the challenge for consumers will be recognising when their decisions are truly independent or when they have been carefully engineered.

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## How Effective are PSR Rules in the Premier League?

*Isaac Littlecott*

The Profit and Sustainability Rules (PSR) are financial regulations designed to keep premier League clubs stable and responsible; they restrict clubs to a maximum loss of £105 million over a three-year period, or £39 million for newly promoted teams. The core objective of these is to encourage healthy competition and prevent clubs from falling into administration as seen in the past, such as, with teams like Bury FC.

The protection of competition helps prevent market failures such as oligopolies, where a few powerful clubs completely dominate the Premier League. We can already see these rules succeeding, as the traditional 'Top 6' is becoming less distinct, other clubs are winning domestic trophies, and more teams are qualifying for Europe.

### **So, what is the economic rationale behind PSR?**

This question can be covered in two key points – overspending and financial stability.

Firstly, overspending can effectively lead to an inflation problem within the player market. This occurs when with greater budgets there is a greater demand for top level players. These players have an inelastic supply, meaning there is a very limited number of world-class players available, so clubs can't just create more of them - hence with an increase of demand there is a proportionately larger increase in price level than in quantity. Without owners directly doing the spending an apparent moral hazard becomes evident - when people take big financial risks because they won't personally suffer the consequences -as the decision-makers in these top clubs can overspend knowing that the financial consequence is unlikely to fall directly on them.

As a result, financial support is pumped into clubs by wealthy owners forming an investment in hope of a profitable return from lucrative sponsorships, European qualification and TV money. Not only this, with such high demand player wages skyrocket, causing large unsustainable costs to the club leading to financial instability throughout the league. With different intentions mid table teams are now pressured into spending greater amounts or risk the face of relegation unable to compete at the new level. Financial instability can lead to large cash flow problems, large debts and ultimately a risk of administration. The basis of PSR prevents overspending therefore aiming to prevent not only overspending but the issues that are of a cause of overspending reforming true equality.

### **In the media, PSR is still a prominent talking point but is this for positive or negative reasons?**

In terms of financial stability, the answer is yes, in many ways have PSR been effective in preventing overspending, leading to financial stability. Almost all clubs from 2022 to 2023 have seen an increase in revenue, suggesting that there is a decreasing aggregate loss and net debt - the total debt a club owes after subtracting the cash they have - of clubs, which is a large problem for clubs such as Manchester United and Tottenham, having over £600 million respectively. From this data we can understand that with clubs increasing revenue, administration becomes less of a risk.

Alternatively, these rules are not flawless, and loopholes can be exploited, possibly leading to similar problems once more. Such loopholes exist in selling assets, such as Chelsea did with their Women's team to themselves, in order to increase revenue, or giving players longer contracts. This means the cost per year is the total cost divided by number of years, significantly decreasing yearly spending on players while being able to gain all the revenue of players at the time of the sale. Recently all premier league clubs voted

in favour that the total amount can only be divided across 5 financial years, helping this problem yet not providing a total fix.

Furthermore, for some, the view of PSR has been highly negative, stemming from such factors such as reduced external investment, points deductions and entrenching inequality- making the gap between rich and poor clubs even deeper. For example, the points deduction of Everton in November 2023 shows that mid-table teams are unable to invest to the same level as top clubs due to the financial restrictions and their lower revenue. This contrasts the idea that there is more equality, possibly solidifying an oligopoly- where a small handful of powerful clubs dominate- rather than moving away from it. The idea that there is far more risk of external investment if the team does not do well in domestic competitions and Europe from points deductions can limit external investment decreasing global competition of the premier league and lead to a lower quality of football

Overall, PSR has been successful ultimately in its goal of preventing overspending and maintaining financial stability without heavily compromising the competition significantly in any way. Evidence of the rules being enforced is evident with the point deductions, and this encourages clubs to support stable finances. I believe that although it has been successful, there are ways it can be improved, such as incorporating more flexible investment rules- especially to investigate bridging the gap between the Championship and Premier League.

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## Can Game Theory Be Used to Explain Behaviour?

*Taalay Ullah*

Imagine you are a market leading supermarket and a challenger considers entering your space. As the dominant business, you have three options depending on your competitive strength:

- **Very weak company: Concede and allow entry**
- **Weak company: Bluff through a price war and coexist**
- **Strong company: Fight a price war to remain dominant**

In practice, you slash prices — not because it makes financial sense, but to send a message: "I am willing to lose money to make sure you cannot make any."

### ***What Is Game Theory?***

Game theory is the mathematical study of decision making where outcomes depend not only on your own choices, but on the choices of others. It asks a central question: if everyone acts in their own self interest, what happens to the group?

The Prisoner's Dilemma (Tucker, 1950) is a foundational framework for this. Two criminals are held in separate cells. Each is offered a deal: betray your partner and go free, or stay silent and risk a heavier sentence. If both stay silent, both receive a light sentence. If both betray, both receive a heavy sentence. If one betrays and the other stays silent, the betrayer walks free while the other faces the maximum penalty. Betrayal is a dominant strategy. It is the optimal choice regardless of what the other player does.

The result is a Nash Equilibrium: a point where neither player can improve their outcome by changing strategy alone. Both betray, and both end up worse off than if they had simply trusted each other.

The dilemma is not that they make the wrong choice, it is that they make the rational one.

### ***From Theory to Markets***

A striking real-world parallel emerges in oligopolistic markets. The UK grocery sector is dominated by a small number of large firms (Tesco, Sainsbury's, Asda, and Morrisons) whose pricing decisions are fundamentally interdependent. The Competition and Markets Authority (CMA) has repeatedly scrutinised this market; its 2023 review into grocery pricing found that major supermarkets raised prices faster than input cost increases during the inflationary period, raising concerns about coordinated behaviour (CMA, 2023). Each firm, acting individually and rationally, pursued margin protection, yet collectively, consumers faced prices higher than a fully competitive market would produce. This is the Prisoner's Dilemma in corporate form: undercutting rivals is the dominant strategy, even though mutual price stability would be Pareto superior which is better for all parties without making anyone worse off.

This dynamic is not limited to supermarkets. Competing firms across oligopolistic industries engage in price wars to protect market share, even when both would earn higher profits through stable pricing. Individual rationality produces collective inefficiency.

### ***When the Game Is Repeated***

The original Prisoner's Dilemma carries a critical assumption: the two players meet only once. Once that changes, so does the outcome.

Political scientist Robert Axelrod tested this in a landmark tournament in 1984, inviting economists and mathematicians to submit strategies for a repeated Prisoner's Dilemma played hundreds of times between the same players. The winning strategy was the simplest entry: tit-for-tat. It cooperated on the first move, then mirrored whatever the opponent did in the previous round — rewarding cooperation, punishing defection, but never holding a grudge. It never exploited, yet it outperformed every more complex strategy in the field.

Axelrod's conclusion was clear: in repeated interactions, cooperation is not naive, it is optimal. When players expect to face each other again, reputation matters and trust becomes rational. This finding has direct macroeconomic relevance. It helps explain why rival nations negotiate trade agreements despite underlying tensions, why OPEC members periodically stabilise output despite incentives to overproduce, and why the UK's major supermarkets have, at times, engaged in tacit collusion, maintaining parallel pricing structures without explicit coordination, precisely because they compete in a repeated game where retaliation is always one pricing cycle away.

### ***Conclusion***

Game theory does not tell us what people should do. It tells us what they will do. And it reveals why intelligent, well intentioned actors can collectively produce outcomes nobody wanted.

The Prisoner's Dilemma is not confined to abstract theory. It is embedded in oligopolistic competition, from UK supermarket pricing to international trade policy. Understanding the logic of the game is the first step toward designing better institutions: repeated interactions, binding commitments, and

regulatory oversight are all mechanisms that shift incentives away from dominant strategies toward cooperative equilibria that leave everyone better off.

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## **How Behavioural Economics Plays a Part in Microtransaction fraud**

*Maddie Kirkham*

In today's economy we cannot afford to fall victim to scams, yet it is easier than we realise to be tricked into scams that appear genuine and trustworthy. This is especially true with what seem to be harmless micro transactions and 'one-time' purchases, such as online quizzes that claim to reveal our personality type or suggest what university course might suit us best. These can be considered a form of APP (Authorised Push Payment) fraud. In this article I will take a behavioural economics perspective to explain how individuals are subtly tricked into giving away money, or personal information, and how we might be able to avoid these traps.

One theory that can be applied to this is the System 1/System 2 dual-process theory developed by psychologists Daniel Kahneman and Amos Tversky and later popularised by Richard Thaler and Cass Sunstein in their 2008 book "Nudge". For this article, we will assess the role of the automatic system in APP fraud. This is where our brain avoids in-depth thought processes when making decisions we do not believe to be high stakes. In simpler terms, these are like reflexes. Imagine someone has just pushed you from behind. You will instinctively react by sticking your leg out in front of you. With APP fraud, the 'push' comes in the form of an 'unlimited offer' or 'one-time microtransaction', and our instinctive, unreflective response, much like a reflex, is to pay or accept the offer, as our automatic system doesn't recognise it may be a scam.

Similarly, the representative heuristic is often applied in these scenarios, where people judge situations based on how similar they are to pre-existing mental prototypes. From this, we can infer that past experiences of being scammed may encourage the use of the reflective system, as it increases caution and more deliberate thinking.

Another reason these microtransaction scams are successful is due to our irrational decision-making tendencies when we are exposed to what we perceive as ‘scarcity’ within the scam, where limited availability or exclusive offers, and time pressures lead us to act quickly without fully recognising what we are purchasing/clicking on. For example, say you follow a brand on social media, such as Scuffers. Scammers will recognise you follow the brand and offer you a ‘one time flash deal’ for their hoodies given that you click on the link provided. Because of the scarcity principle used in these scenarios, we are unconsciously nudged to buy quickly, when in hindsight you may have not even bought the hoodie if there were no perceived scarcity cues. This is called loss aversion based on Daniel Kahneman’s Prospect Theory, which suggests that people make decisions based on perceived gains or losses rather than final outcomes, and that losses tend to feel more impactful than equivalent gains.

Nevertheless, these behavioural influences can be mitigated through greater awareness and what behavioural economists Richard H. Thaler and Cass R. Sunstein refer to as ‘Nudges’. In the context of reducing APP fraud, these nudges act as friction between the scam and instinctive decision making. For example, adding an extra verification step within the payment process, interrupting the automatic systems impulsive state and forcing you to evaluate the transaction more carefully before you get scammed out of money in what may appear to be high stake situations. Although, is it the consumers that should be held accountable for the scam? Or should there be more emphasis on the apps/ scammers to take the blame?

However, while nudges can help reduce impulse decisions, the effectiveness of these nudges depends on our willingness and awareness to engage with them. Therefore, a combination of behavioural interventions and increased awareness in education about cognitive biases, alongside increased regulation and or restrictions to stop the initial scam is likely to reduce APP fraud more effectively than any single solution alone.

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