DUBAI KEYNES SOCIETY NEWSLETTER

A Dubai College Initiative

June 2025 Edition

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'If economists could manage to get themselves thought of as humble, competent people ... that would be splendid'

John Maynard Keynes (1883-1946)

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This term at DKS has been a vibrant celebration of student initiative and intellectual curiosity. From the thoughtful economic analysis of our youngest speakers to the seasoned insights of industry leaders, Term 3 has offered a rich tapestry of perspectives. We began with Harihar Rengan's timely exploration of a potential second Trump presidency, followed by a powerful series of talks from professionals including Khatija Haque, Amanda Line, and Tucker Highfield, each sharing invaluable lessons from the worlds of finance, consultancy, and crypto. Roohi Hamlani brought a fascinating intersection of STEM and entrepreneurship to life, while Ziyad Akram impressed us all with his command of global monetary systems at just Year 8. We now look forward to hearing from Himakshi Shastri, whose journey from DC to Wharton promises to inspire the next generation of economists. It's been a term of bold ideas, diverse voices, and growing ambition—hallmarks of what makes DKS and DC so special.

- Mr. Duckling

Leading Dubai College's most prestigious and long-running club has been an honour this academic year. This term has been frenzied as Term 3 always tends to be, however, that didn't stop us from maintaining the high standards from earlier on in the year and from past leadership teams.

This term has hosted a cohort of sessions, from Tucker Highfield's second appearance this year talking about the future of Bitcoin and other cryptocurrencies, to Himakshi Shastri, a 2023-24 DC alum, who reflected on her experienced at Wharton School of Business in the USA, We are proud to have nurtured this club, with speakers bringing inspiration to our DC students every week, sparking new ideas and perspectives within DKS's over 100 members!

A few thank yous are also due. Thank you to all the speakers this year for being able to continue the rich tradition and heritage that DKS provides DC students. Thank you, Mr. Christopher, for the unwavering support and being willing to comply with our ideas and propositions on how to take this club even further. Thank you to everyone that wrote for the Ramadan Essay Competition or any edition of the Newsletters. Finally, thank you to everyone attending DKS – we are immensely grateful for your commitment to keep us moving forward!

- Raghav, Alp, Aryav and Sanaaya

Mr. Christopher's Foreword

Wow – what a year for the Keynes Society! Now in its 12th year, DKS continues to grow in ambition, reach, and relevance. This year marked a new chapter, with the Society led for the first time by not three, but four brilliant Heads: Alp, Sanaaya, Raghav and Aryav. This quartet worked in seamless harmony, combining creativity, professionalism, and insight to deliver one of our strongest programmes yet. Their teamwork has been nothing short of exemplary – a dream team who raised the bar in every sense.

Highlights? Too many to name, but here are just a few:

1) **Khatija Haque**, now Chief Economist at Mastercard, returned to give us her unique perspective on geopolitics and global finance – essential listening for anyone considering a career in economics.
2) **Andrew Hallam**, bestselling author of Millionaire Teacher, joined us for a wide-ranging Q&A session on personal finance, investing, and life after teaching.
3) **Rob Carver,** expert in quantitative finance, thrilled us with his experience as a hedge fund manager and systematic trader.
4) **Tucker Highfield**, CFO of Genesis Digital Assets, appeared not once but twice – offering deep insights into cryptocurrency, mining, and East Asian finance.
5) **Roohi Hamlani**, founder of CAREFUL Systems, inspired students with her story of innovation at the intersection of biochemistry, tech and entrepreneurship.
6) **And of course, our most loyal guest, Jahangir Aka**, returned for his 11th session with the Society – a truly remarkable contribution.

Our student-led sessions were just as impressive. From **Ali Mansur-Valiyev's** masterclass on crypto to **Harihar Rengan's** clear breakdown of Trump's economic policy, and from **Ziyad Akram's** explanation of the Dollar Standard (delivered at just 13 years old!) to the interactive debates, quizzes, and revision sessions, our members showed that the future of economics is in safe hands.

We also continued our commitment to sustainability through another successful beach clean-up in collaboration with Goumbook, strengthening our links between economics, community action, and the environment.

None of this would have been possible without the tireless efforts of Alp, Sanaaya, Raghav and Aryav. From planning and hosting weekly sessions to editing newsletters, managing guest logistics and mentoring junior members, they have carried the torch of DKS with distinction and left the Society in a stronger place than ever before. Taking on the leadership of DC's longest-running society is never easy – but this year's team made it look effortless. You've been outstanding custodians of something very special, and you leave behind big shoes to fill. To all our guest speakers, contributors, participants and attendees – thank you. We wish you all a restful and well-earned summer break. See you next year for DKS Year 13!

Session Summary

23rd-April	Harihar Rengan Y11	We kicked off Term 3 with an insightful talk by Harihar Rengan in Year 11, who explored the potential economic impacts of a second Trump presidency. He broke down key ideas in a student-friendly way, linking exchange rates and trade policy to the real world – useful context for both GCSE and A-level economists!
30th-April	Khatija Haque	We were privileged to welcome Ms Khatija Haque, former Emirates NBD economist and now Chief Economist at Mastercard. A DC parent and long-time friend of DKS, Ms Haque shared her journey through the financial sector since 1999 and gave us a fascinating look at how geopolitics shapes business decisions. An especially helpful session for anyone considering economics at university or a career in finance.
7th-May	Amanda Line	This week, we heard from Ms Amanda Line, a DC governor, business owner, and former PwC consultant with over 40 years of professional experience. She shared her journey through roles in accountancy, consultancy, and education and gave valuable advice on leadership, entrepreneurship, and navigating the world of work.
14th-May	Tucker Highfield	We were delighted to welcome back Mr Tucker Highfield, CFO of Genesis Digital Assets, who gave his second talk of the academic year! Mr Highfield took us through his journey from analyst at Lehman Brothers to leading roles in the crypto world. He offered an eye-opening look at finance and tech in East Asia and how the crypto sector differs across regions.
21st-May	Roohi Hamlani	This week we welcomed Ms Roohi Hamlani, a biochemistry graduate from Oxford and founder of CAREFUL Systems – a medical tech company focused on secure communication during patient care. With 20 years of industry experience and previous roles at Johnson & Johnson, Ms Hamlani offered a brilliant look at how STEM meets entrepreneurship, inspiring students with her story of innovation and perseverance.
11th-June	Ziyad Akram Y8	Our youngest speaker of the year, Ziyad Akram from Year 8, delivered a fantastic talk on the Dollar Standard. He explored how U.S. monetary dominance affects the global economy – and what could change under a Trump administration. A great opportunity for students to see how textbook exchange rate theory connects to today's political landscape.
18th-June	Himakshi Shastri	We are thrilled to host Himakshi Shastri, an ex-DC student now studying economics at the Wharton School, University of Pennsylvania. Himakshi will be sharing her journey from DC to an Ivy League campus, offering great advice about university applications, adapting to new academic environments, and studying economics.

Economics in the News

Trump's attacks on international stu… enrollment could ultimately shake t…

By Alicia Wallace, CNN
5 minute read · Published 7:00 AM EDT, Fri June 6, 2025

UK inflation rate jumps to 3.5% in April as higher household bills kick in

Dollar slides to three-year low while FTSE 100 hits record high

…urn away from weakening US economy and …cy after Trump repeats tariff threats

ECONOMY

U.S. budget deficit hit $316 billion in May, with annual shortfall up 14% from a year ago

PUBLISHED WED, JUN 11 2025 3:07 PM EDT | UPDATED WED, JUN 11 2025 3:34 PM EDT

Jeff Cox

Javier Milei lowers Argentina's monthly inflation below 2% for first time since 2020

Libertarian leader tames chronic price pressures though annual rate remains among world's highest

The drop in inflation is a victory for President Javier Milei after he lifted a controversial currency control that had underpinned his fight against inflation © Sergi Perez/EPA-EFE/Shutterstock

Council tax expected to rise by 5% a year

5 days ago

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Kevin Peachey

Gold overtakes euro as global reserve asset, ECB says

Bullion second only to US dollar in 2024 after record central bank purchases

Retail sales fell 0.9% in May, worse than expected as consumers pulled back

US inflation ticks higher but tariff impact remains muted

6 days ago

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Natalie Sherman
BBC News

…wiss inflation turns negative for first time in …our years

…vestors bet on a return to sub-zero interest rates as central bank tries to restrain …aring Swiss franc

…s minus 0.1% in May © Pascal Mora/Bloomberg

The Big Read Global Economy + Add to myFT

How gold became the world's refuge from uncertainty

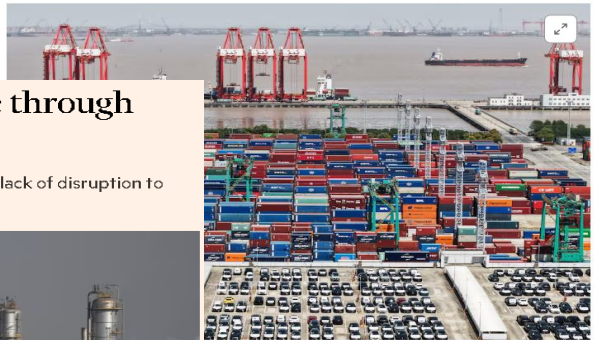
In an era where core assumptions about the global economy are being questioned, gold has once more become an anchor — especially for central banks

Europe cuts interest rates again, day after Trump renews attacks on the Fed

By Anna Cooban, CNN
3 minute read · Updated 9:06 AM EDT, Thu June 5, 2025

World Bank cuts global growth forecast as trade tensions heighten uncertainty

By Andrea Shalal
June 10, 2025 11:02 PM GMT+4 · Updated 7 days ago



Oil price falls back as flow of crude through Strait of Hormuz unaffected

Traders have shrugged off escalation of Israel-Iran conflict amid lack of disruption to exports from region

Tackling the Debt Crisis in Low-Income Countries

Aryav Odhrani

Introduction

Developing countries face a major debt-driven development crisis, with their external debt quadrupling to a record $11.4 trillion in 2023 (UNCTAD, 2025). As of 2024, five low-income countries (LICs) already are officially in external debt distress, with 28 more at high risk (IMF and World Bank Group, 2025). Debt distress is a matter worse than fiscal pressure; it severely constrains growth, crowds out vital public investment, and stalls progress on a country's development outcomes. This is due to a debt-development trap, where naïve and short-sighted, politically-influenced administrations in developing countries borrow heavily to grow but are forced to cut the v very investments required for long-term development due to rising debt interest payments. The risks of such a cycle have been exacerbated by deteriorating global financial conditions and the cascading effects of recent global crises. Heavily Indebted Poor Countries (HIPC) have seen a 62.7% surge in sovereign defaults since the COVID-19 pandemic, reflecting how vulnerable countries have resorted to unsustainable borrowing to stabilise their economics. To break this impasse, I propose two high-impact solutions targeted at different stages of the debt cycle: one to eradicate existing debt burdens through innovative swaps, and one to treat future vulnerability by strengthening countries' fiscal capacity to finance debt sustainably. Together, they form a strategy for how countries can reduce debt servicing costs and still support their own development.

The Developmental Costs of Debt Servicing

Debt servicing obligations severely constrain fiscal budgets in LICs, forcing governments to allocate scarce resources to debt repayments at the expense of essential public spending. This crowding-out effect leads to significant opportunity costs: the funds diverted to service external debt reduces investment in critical sectors such as healthcare, education, and infrastructure which are vital for the long-term economic growth and development of any country. The prioritisation of debt servicing over public investment reduces the multiplier effect, where government spending typically serves as an injection that generates multiple rounds of growth in an economy. Without adequate investment, potential growth slows, weakening a country's future capacity to generate tax revenue and repay debt, forming a vicious cycle of debt distress. In 2023, 54 development nations had net interest payments exceeding 10% of their revenues, reducing spending on growing their respective aggregate supplies and productive capacities. In extreme cases, such as those countries at high risk of debt distress, a negative multiplier effect may occur.

Risk and Investor Confidence

The behavioural consequences that an intergenerational debt burden forms are profound, impacting both investor perceptions and domestic economic performance. When a country's debt trajectory is perceived as unsustainable, credit rating agencies respond with downgrades. For instance, Fitch downgraded Ethiopia, which is in debt distress, to a 'restricted default' following its failure to meet a Eurobond interest payment in 2023. Such downgrades lead to higher sovereign bond yields, as investors demand a premium due to risk, therefore raising the country's costs of refinancing and deepening the financial strain.

The erosion of creditworthiness reduces a country's future access to international capital markets. The average yield on Eurobonds issued by sub-Saharan African nations rose from 4% in 2019 to over 10% by late 2023 (European Investment Bank, 2024). Foreign direct investment (FDI) may decline due to investor concerns over macroeconomic instability and low growth potential where there are higher default risks. Ethiopia has experienced stagnating FDI inflows despite vast mineral wealth, as persistent debt overhangs and governance issues deter long-term investments by multinational corporations. Ethiopia's FDI inflows decreased 12% to $3.26 billion in 2023 (UNCTAD World Investment Report 2024). Domestically, a high debt burden further undermines consumer confidence, reducing consumption and eventually leading to lower private sector investment. The negative accelerator effect demonstrates how the lack of confidence in debt-distressed environment can reduce business confidence and thus constrain private investment. Keynes' theory of 'animal spirits' reinforces this: if the state of an economy is perceived pessimistically and a government's policy response to debt deemed ineffective or uncertain, consumption and investment fall, leading to subdued aggregate demand and weaker economic growth, harming a country.

The Changing Landscape of Sovereign Creditors

A critical yet underexamined dimension of debt crisis is who holds developing countries' debt, important because the intentions and mechanisms available to the different creditors have the potential to reinforce sustainable debt cycles or even help break them. Among the largest bilateral lenders and private bondholders to Africa are a range of non-permanent or ad-hoc Paris Club creditors, including China, Saudi Arabia, Kuwait, India, and the UAE (One Data, 2025). For instance, Ethiopia signed mineral and energy investment deals worth over $1.7 billion with Chinese firms in May 2025 (Business Insider, 2025). In 1996, Paris Club creditors held 39% of LIC's external debt while non-Paris Club creditors and private lenders each held just 8%. By 2021, the balance had flipped, with the former holding 11% and the latter 20% and 19% respectively (OECD, 2025). These newer creditors are not always part of coordinated debt relief frameworks and often lack incentives to align with climate or development goals, making collective action to reduce the debt burden harder.

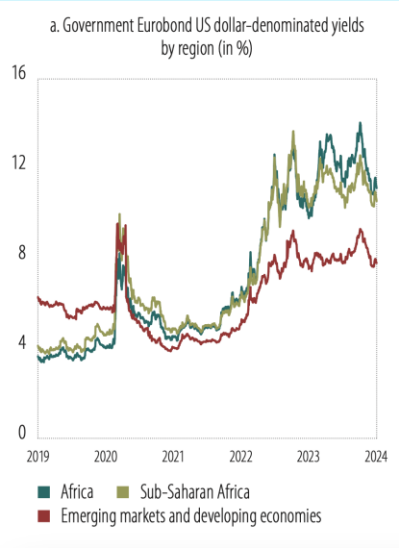


Figure 1 – Government Eurobond yields rising in Africa and developing economies (European Investment Bank, 2024)

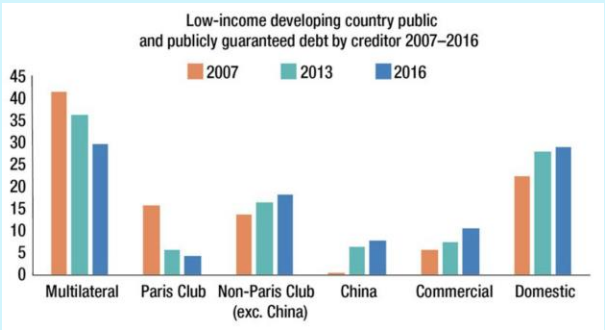


Figure 2 – Low-income developing country debt by creditor (ODI Global, 2019)

Debt-for-Climate Conversion Facility

This context presents a strategic opening for climate-aligned lenders to spearhead the creation of a Debt-for-Climate Conversion Facility (DCCF): a permanent, digital, diplomatic architecture to institutionalise green debt relief for vulnerable relations. The facility would operate as a secure digital portal, hosted by a union of governments, where LICs at risk of or already facing debt distress can submit climate-aligned investment proposals in exchange for partial debt cancellation. Creditors of all types would be able to evaluate and co-fund projects to effectively provide debt relief and improve climate performance across the globe.

The mechanism would serve as a neutral platform, increasing the transparency of deals and reducing the burden of negotiation for all parties. The monitoring would ensure that countries borrow sustainably and continue to prioritise environmental goals. Through this end-to-end system, parties would be set up in communication and trade deals would be performed through the portal. Essentially, the portal coordinates and brokers sovereign debt-for-nature swaps that maximise the benefit to both debtor countries and a broad group of creditors.

The DCCF could be used across the year by multiple different countries. Furthermore, an annual Climate Finance Summit could be held, similar to the Commonwealth Trade and Investment Summit, inviting debtor countries, Paris and non-Paris club lenders, ESG-focused private institutions, and multilaterals like the IMF and Green Climate Fund to discuss and complete structured swap deals. Considering the structural shift in creditor politics following the turn of the century and the resulting slowing of coordinated relief efforts for climate-linked financing, a mechanism to like the DCCF or a Summit is of vital importance. It would encourage the idea of debt-for-climate swaps and set standardised contracts and environmental benchmarks to appeal to new creditors. The platform provides the frameworks to enable transactions at scale, so capital and climate gains are shared globally.

The developmental benefits of the Debt-for-Climate Conversion Facility are massive. In 2024, 92 countries were projected to spend more on debt service than on UN's Sustainable Development Goals. However, debt-for-nature swaps could help redirect over $100 billion in developing country debt – often those most at risk – to nature restoration and climate adaptation (OECD, 2025). In 2020, a debt conversion deal helped Seychelles commit to protecting 30% of its ocean. With the development of a platform that hosts, verifies, and structures climate-linked debt relief deals, rather than focusing solely on ad hoc bilateral agreements, governments could replicate Seychelles' success for up to 85 countries (The Nature Conservancy, 2018), reducing debt burden while promoting global environmental development.

Tax Reform and the Path to Debt Sustainability

Second, I propose tax reform in countries in, or at risk of, debt distress targeted at efficiently increasing tax revenue to finance debt interest payments more comfortably and leave sufficient capacity for government spending. Debt servicing costs have a large opportunity cost in HIPCs, the forgone value of investment into healthcare, education, and other key sectors, and consume over 20% of tax revenue in 25 developing countries (OECD, 2025). Developed countries' governments could collaborate with institutions like the IMF to form advisory councils that provide analysis and support to HIPC governments.

There are two major benefits of tax reform regarding reducing debt burden and supporting a nation's development. First, if countries were to reform their tax system to maximise government income, the proportion of the government budget spent on debt interest payments would reduce. Governments would offset the reduced debt servicing costs with increased expenditure on the public sector. This would lead to an injection into developing countries' economies, expanding their circular flow of income. Since a large proportion of an LIC worker's income is spent on necessities rather than luxuries, consumers typically have a higher marginal propensity to consume. This would boost the multiplier effect, where the government spending stimulated further growth of aggregate demand in the economy. Supply would extend to meet this increased demand, leading to derived demand for labour, higher employment, and more private investment into the productive capacity of the economy. Tax reform would thus provide more headroom for spending, leading to potential economic growth and higher standards of living for citizens of HIPCs.

Alternatively, LICs would be able to borrow significantly more to maintain a sustainable ratio of servicing costs as a proportion of overall tax revenue. A larger tax revenue would also increase the headroom for borrowing without widening a budget deficit massively. With a greater borrowing capacity, countries could sustainably manage greater debt for the purposes of growing their economy. A developing country's government could engage in more public sector borrowing and increase expenditure, targeting the increased spending on the supply side of the economy. This has a massive potential for countries to increase their spare capacity, productivity, and long run aggregate supply. For example, if the Democratic Republic of Congo spent $2 billion on education and training schemes to increase the human capital of their workforce, productivity – output per worker per hour – would rise. Investing into technological advancements through capital and machinery, especially in countries dominated by the primary and secondary sector, would also shift out the production possibility frontier for a country. These would all contribute to raising the trend rate of economic growth. Greater government borrowing and spending, financed by effective tax reform, would allow a country to develop.

Conclusion

I believe that an effective strategy combining capacity building to prevent future debt distress and debt management support to reduce current burdens is vital to support the sustainable growth of HIPCs in the future. Innovative solutions such as the Debt-for-Climate Conversion Facility allow governments across the globe to collaborate with lenders and support the reduction of debt burden and distress while promoting environmental and economic growth in developing countries.

Kuznets Curve: Informative or Misleading

Raghav Jasuja

The Kuznets Curve is an economic hypothesis proposed by Simon Kuznets in the 1950s, which suggests that as an economy develops, inequality first increases and then decreases—forming an inverted-U shape when income inequality is plotted against GDP per capita. Since its introduction in 1955, the Kuznets Curve has become somewhat of a law in development economics. However, is this piece of economic theory useful for real-world analysis? Or is it merely a theoretical construct with limited applicability outside controlled academic contexts?

Background

In his original paper, Simon Kuznets expressed his desire to analyse the causes of long-term changes in the personal distribution of income, specifically whether 'inequality in the distribution of income increase[s] or decrease[s] in the course of a country's economic growth'.

Interestingly, Kuznets was extremely careful not to overstate the importance of the research and analysis he undertook. He acknowledged that the field of development economics (which had only begun to enter orthodox economic research in the early 1910s) had long been hindered by a shortage of quality data, vague definitions, and a lack of secular analysis. As such, he emphasised the need to collect data according to five specifications:

1. Income should be recorded by family expenditure rather than personally.
2. The distribution of income must be equally representative in terms of the proportion of each income group in society (i.e. a stratified sample).
3. All individuals not of working age (including retired senior citizens and students) should be excluded for ease of data collection.
4. Income must be defined in line with national income standards (including both pre-tax and post-tax income).
5. Income should be grouped secularly/structurally (free from cyclical disturbances).

These conditions were used by Kuznets to analyse time series data from 1800–1950 in the UK, US, and Germany—covering periods when each country was relatively poor before experiencing rapid economic progression due to industrialisation and agricultural revolutions.

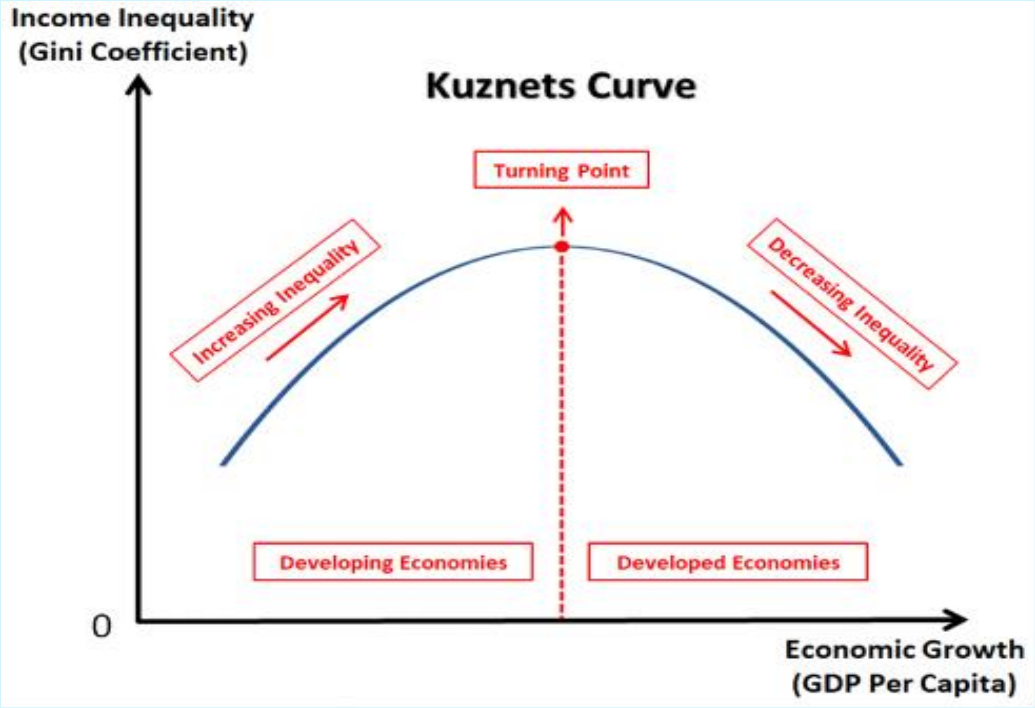


Figure 1

Theory

Figure 1 illustrates the observations of the Kuznets Curve: income inequality initially rises as an economy undergoes rapid economic development, reaching a peak before eventually declining.

Kuznets' theory followed these observations for several reasons. Firstly, with economic growth, savings tend to be concentrated in higher income groups, as profits initially accrue to business owners and wealthy individuals who already own capital. These actors can exert control over wage increases, which tend to lag behind the growth in profits—thereby increasing income inequality.

Secondly, economic growth often leads to increased house prices—an asset predominantly owned by the rich. As a result, wealth increases structurally for the rich but not for the poor.

Thirdly, economic growth brings industrialisation and urban migration. People formerly living in rural areas shift to non-agricultural jobs in urban sectors. Rural areas tend to have narrower income inequality than urban areas. This disparity arises because infrastructure growth lags behind industrialisation, meaning access to housing and basic services becomes a rationing mechanism: the rich can afford them, while the poor face exclusion and rising inequality—even if average incomes are increasing.

In the long term, however, as productivity rises through industrialisation (a higher-paying sector than agriculture), average wages increase. Urban migration also improves access to public goods such as education and healthcare, which provide long-term benefits (often 15–25 years later). Public education and healthcare are progressive in nature—disproportionately benefiting poorer groups and enabling them to acquire skills at a faster rate than the rich. Over time, this results in faster wage growth for the poor, improving their access to goods and services and leading to a reduction in income inequality, as shown in Figure 1.

Implications and Shortcomings

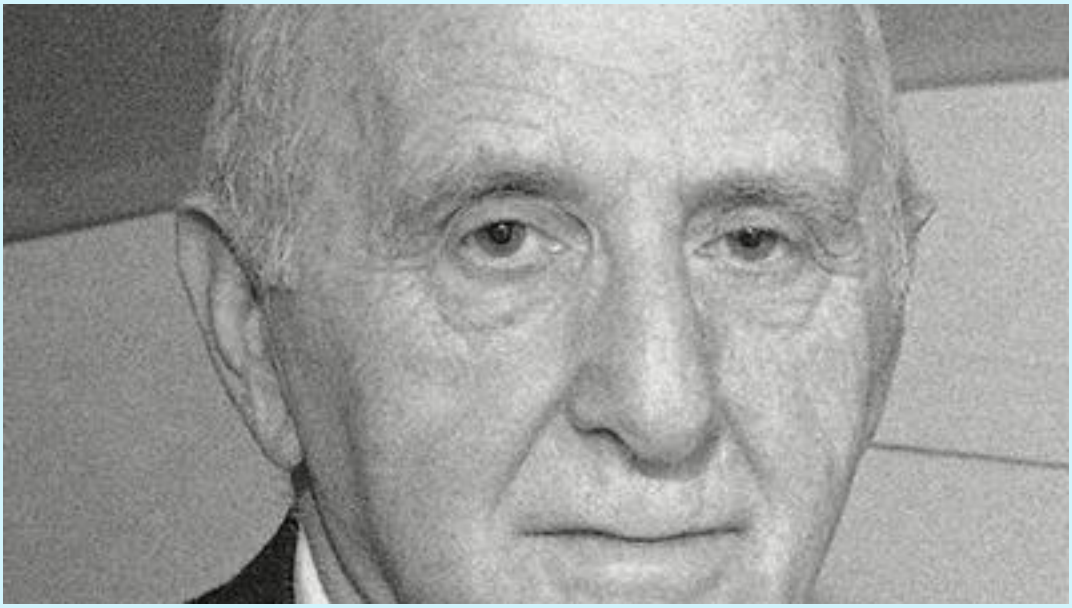
Despite Kuznets explicitly stating that his research was based "5% on empirical evidence and 95% on wishful thinking", the theory gained traction—largely due to the infancy and eagerness of development economics to align with classical macroeconomic frameworks. This made academics more likely to embrace simplified, applicable theories.

Although the Kuznets Curve was originally devised to describe income inequality trends during economic growth, it has since been extended to other macroeconomic objectives, such as environmental degradation, and has inspired other bell-shaped models like the Laffer Curve. These frameworks have enriched the understanding of how macroeconomic goals interact and the trade-offs involved—an insight valuable for effective policymaking.

However, the Kuznets Curve fails to explain certain developmental trajectories, such as those of South-East Asian countries in the late 1960s. South Korea and China, in particular, experienced rapid economic growth driven by industrialisation (mainly export-led), widespread education, and coordinated economic policy. In China, for example, while 88% of the population lived below the poverty line in the early 1960s, an estimated 600–700 million were lifted out of poverty by the late 1970s. This suggests that economic growth can lead directly to reductions in income and wealth inequality—particularly when governments implement effective, inclusive policies.

Conclusion

In conclusion, while Kuznets' research was conducted in an academically rigorous manner, its status in development economics has arguably been overstated—often treated as an economic law. Yet, case studies from South-East Asia demonstrate that rapid economic growth need not entail rising inequality. This indicates that the Kuznets Curve is context-dependent and may fall short of being a universally applicable theory. Nevertheless, the theory's influence in highlighting the importance of development economics—often considered the 'humane' branch of the discipline—remains a lasting and positive contribution.

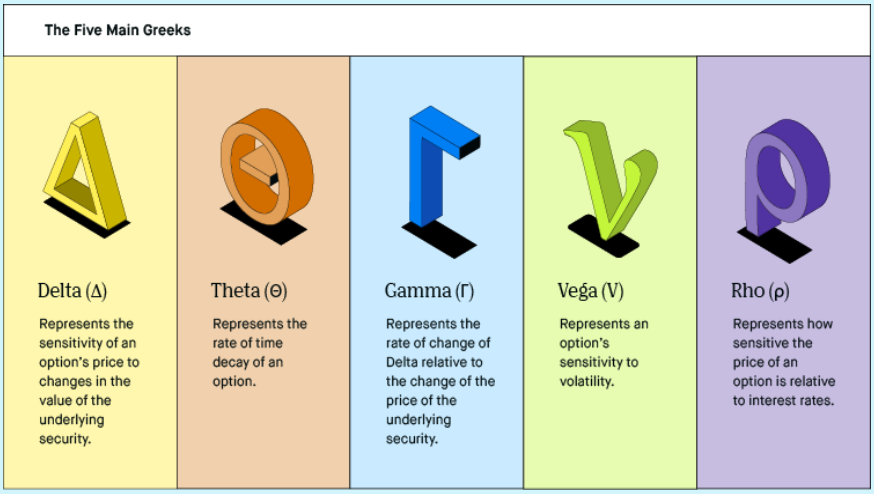


How Do The Greeks Help Investors Manage Risk In Options Trading, And What Are The Limitations of Relying On Them?

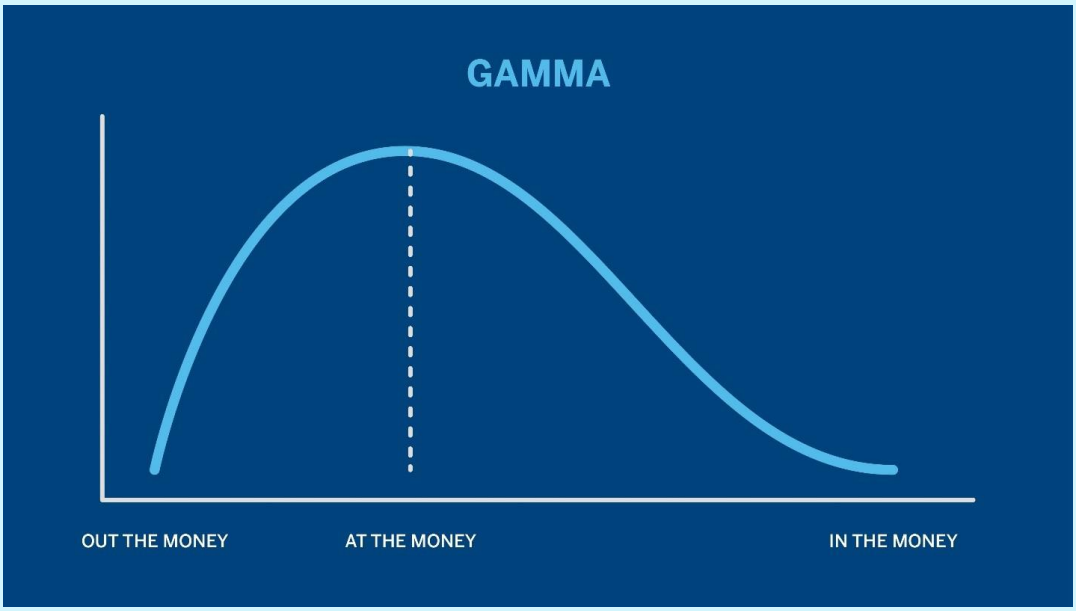
Mustafa Alp Ata

Financial derivatives are advanced tools in financial markets that go beyond securities. They are becoming increasingly integral. The value of a financial derivative is derived from the value of an underlying asset. Therefore, derivatives can be used to speculate on future changes in markets, hedge risks, and create large leveraged positions. Due to their complexity, financial derivatives are non-linear instruments that can vary in intrinsic value based on various market variables. Stock options have become a popular derivative contract due to the flexibility that they provide. Their value does not vary proportionally with movements in the price of their underlying asset. Traders use a set of risk measures called “the Greeks” to traverse through this complexity. They serve to quantify how sensitive option prices are to changes in various factors like the underlying asset price, interest rates, and time. “The Greeks” are integral tools for traders when trading a high volume of stock options.

Stock options give holders the right to buy or sell a specific stock at a predetermined price, called the strike price, before the expiration date. There are two main types: call and put options. Call options allow you to buy the stock, whilst put options give you the right to sell the stock. Investors that speculate stock prices will increase use call options to capitalise on the predicted gains. Conversely, investors that expect stock prices to fall generally buy put options to sell their assets at a higher price. Stock options serve as a hedging tool for investors buying volatile assets, protecting them from uncertainty by placing a minimum sale price. Options are complex financial instruments influenced by time to expiry, asset price, strike price, volatility, interest rates and dividends. The Black-Scholes equation famously uses a partial differential equation to price options. For instance, volatility traders purchase more options during periods where they expect greater volatility which enhances the probability of large stock price rises. The Greeks can be used to analyse changes in the value of options using multivariate calculus, accounting for the multitude of factors that affect option prices.



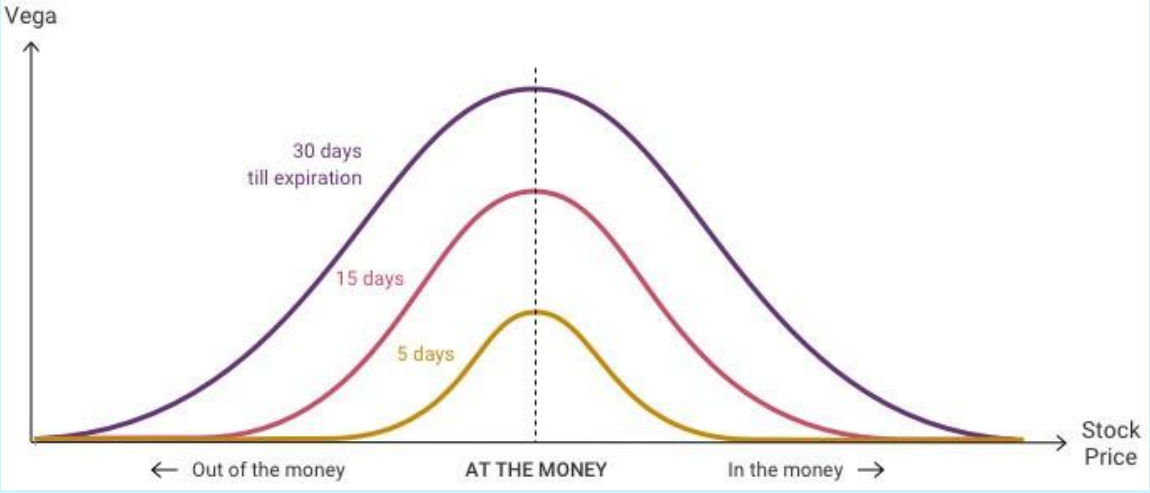
Delta is the first and most important Greek derivative. Delta measures the sensitivity of the price of an option to a $1 change in the price of the underlying stock. Call options have positive delta because when the underlying stock gains value, the option is more likely to be in-the-money. Delta is generally negative for put options because a higher stock price increases the likelihood that the option is out-of-the-money. As option prices tend to the price of the underlying stock, Delta values tend to be 1 or -1 (meaning that the change in price of the option is equal to the change in price of the stock). For deep out-of-the-money options, when the option price is far away from the stock price, Delta is close to zero, as further price changes are insignificant to option value. Traders can use Delta to ensure that their portfolios are protected in both bull and bear markets by hedging their option portfolios. They can create a "delta-neutral" portfolio which offsets fluctuations from movements in underlying prices and keeps portfolio value relatively stable.



Gamma is the most unique of the five main derivatives. Gamma is not a direct derivative of a factor that affects stock options, but it is the derivative of Delta or the second derivative of the underlying asset price. Gamma is always greater than 0, as for both call and put options, delta increases with the underlying stock price. For call options, delta increases towards 1 as the option price moves towards the strike price. Past this point where the option is at the money, Delta still increases by smaller amounts, so Gamma is still positive but has a smaller magnitude. Put options are in the money when asset prices are low, as the stock prices increase towards the strike price, delta increases slightly (magnitude decreases). As the underlying asset price increases further, the option becomes out-of-the-money, and delta increases from around -1 towards 0. Gamma is an essential tool for assessing the stability of an option contract. High gamma means that traders must employ more active risk management strategies, as delta is highly sensitive. Low gamma means that delta is stable, and the investment can be managed more passively. Options become more sensitive near the expiration date due to spikes in Gamma; therefore, hedges must be adjusted more aggressively.

Theta represents the time decay of a stock option. It is the derivative of option value with respect to time. Theta is generally negative for options, representing the time decay that acts upon option prices. The magnitude of theta increases as the time to expiry decreases. When there is less time until expiration, there is less potential for large changes in the underlying stock value. When an option is at-the-money, theta decay accelerates at a greater rate, reflecting the lack of incentive for someone to purchase an at-the-money option near expiry. Theta is a depreciation that is always present in options but not constant. Theta is often thought of as a rent you must pay for holding a stock option. There is a close relationship between time decay and volatility, linking theta and Vega together. The price you pay for owning the option is greater when implied volatility is greater so theta is higher in terms of dollar terms but may not be greater as a percentage. Theta is often cancelled out in times of increased volatility, like market crashes, government statements and earnings reports. The volatility inflates prices as investors flock to stock options to manage the uncertainty. This inflates prices and can offset the time decay. Therefore, investors must consider market conditions when managing theta and must be willing to pay the price of theta to own their stock options.

Vega is the responsiveness of the option price to the implied volatility or sigma of the underlying asset. Vega uses a market estimate of future volatility. Higher implied volatility means that there is an increased likelihood of large movements in the option price. Greater volatility increases the value of stock options, as there is a greater chance of the option being in the money for both put and call options. Therefore, Vega is always positive for both call and put options. Vega is also responsive to time until expiration, as volatility is more impactful over a greater period. The value of Vega falls as the option gets closer to expiring, as there is less potential for the volatility to impact the option price to become in the money. Vega is greatest when the option is at the money, as a small fluctuation in price can determine whether the option has value or is worthless. If the option is far out of the money, vega is insignificant, as fluctuations cannot make the option have value, whereas if the option is already far in the money, it already has a high value, and a slightly greater stock price will have minimal effect on the option price. Therefore, Vega is bell-shaped, derived from the normal distribution with a peak at the underlying stock price.



Rho is generally considered the least significant Greek. It measures how responsive option prices are to interest rates. This is not very impactful in the short term, as interest rates occur gradually and are generally very small. The interest rate considered is the risk-free rate, which is generally the yield of government bonds. The higher the interest rates, the less the strike price you pay in the future is worth today. This is seen in the time value of money formula, where $PV=FV/(1+r)$^t, as a higher risk-free rate reduces the present value when future value is constant for a given period. Rho is positive for call options as the value of the strike price decreases with interest rates. In contrast, Rho is negative for put options as the strike price that you receive loses value at higher interest rates, so the put option loses value and falls in price. Although Rho is not always significant for short-term options, it can be an essential factor to consider for long-term derivatives and during periods of volatile interest rates.

Despite the evident effectiveness of “The Greeks” for managing option portfolios, they come with their limitations. "The Greeks" are based on theoretical option pricing models like the Black-Scholes model, assuming conditions like the efficient market hypothesis, no transaction costs and constant volatility. These assumptions do not reflect real markets, which are completely unpredictable and are not always efficient due to consumer irrationality.

“The Greeks” are merely predictive models of markets that cannot foresee shock events like Covid-19 and natural disasters. Therefore, investors cannot manage their risks when option trading based purely on “the Greeks”. Vega is limited in accuracy, as the volatility used is an implied volatility derived from the market price of the option using the Black-Scholes model. As it is impossible to exactly quantify volatility in a market, Vega should not solely be relied on without other Greeks. Theta calculates time decay based on the assumption that all other factors are constant, like the underlying stock price and volatility. Markets are variable and these factors are unlikely to stay constant, complicating the calculation of time decay on an option’s price. Gamma and other higher-order derivatives provide investors with more insight into the sensitivity of the option’s price. However, there is a trade-off with higher uncertainty and more errors as they are derived from mathematical calculations. These Greeks are more model-dependent, relying more on constructs like the lognormal distribution of stock prices in the Black-Scholes model.

“The Greeks” are essential risk management tools that effectively capture the dynamic movements of option prices. Robust risk management strategies can be built on the framework created by "The Greeks". Like any mathematical model, they have discrepancies and cannot predict financial markets perfectly due to the number of assumptions they are formed upon that are infrequently met in real markets. The framework from “The Greeks” should be combined with critical navigation of shocks, scrupulous evaluation of model risks and research into underlying stocks beyond numerical data. Current financial landscapes oscillate between structured patterns and unforeseen shocks that cannot solely be managed by tools like “The Greeks”. Risks can be navigated by proficient traders who combine their problem-solving skills with theoretical models.

The Economics of Mental Health

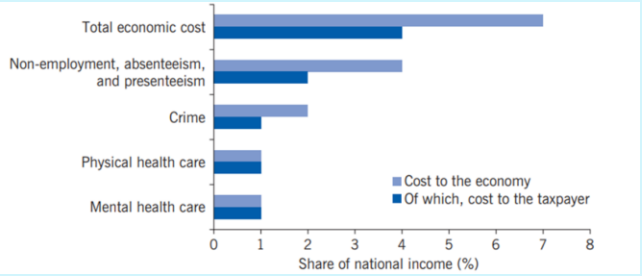
Sanaaya Patel

In the aftermath of the COVID years, we find ourselves suffering from an arguably greater and more persistent pandemic: mental illness. Once rarely discussed but now considered a defining issue of the modern age, it has consequences not just for individuals but also for the global economy. An accumulating volume of research highlights the sheer scale of the mental health crisis. The World Health Organisation estimates that 12 billion working days are lost annually due to mental health conditions, with rising levels of depression and anxiety costing the world over one trillion dollars. These costs could reach up to 4% of global GDP, which is equivalent to the damage of an economic recession (Cummings, 2024). This is a damaging cycle: poor mental health worsens the economy, and economic downturns worsen mental wellbeing.

Almost half of the world's population will experience a mental health condition during their lifetimes. The pandemic created severe disruptions to the way we were used to working, learning and living, further exacerbating the long-term decline in mental wellbeing, since depression cases rose by 25% and almost doubled in some nations. Even prior to COVID, studies suggested 548 million people were affected by anxiety and depression, a number likely to be larger given how many don't have access to or don't seek help. The rise of social media has undoubtedly contributed to this, fuelling loneliness, anxiety and low self-esteem. At the same time, being coupled with facing a climate and cost of living crisis has meant mental health illnesses remain extremely high.

Despite being less visible than physical illnesses, mental health interferes with normal living to the same extent or even greater. One study demonstrated that depression, in comparison to the four most common chronic illnesses, was significantly more disabling. A WHO study revealed that in wealthier countries, mental illnesses are now the most common cause of disease amongst those of working age, which reduces employment prospects for the more than 20% of adults who live with it. Also, upcoming rises in lifespans must be met with greater 'health spans' in order to achieve longer lives that are better lived, with mental health being an urgent part of it.

Mental health in research is often modelled as a state of uncontrollable and repetitive negative thoughts, which in turn is reinforced with behaviour. And as a result, the economic impact can be immense. People with poor mental health are less likely to work, and if in work, more likely to be absent or underperform. Their conditions make it more difficult to perform well and often take on less demanding jobs. In turn, individuals feel more pessimistic, believing they cannot perform better; a study identified this as "presenteeism" and showed that the impact of this means reduced output, lower productivity, lower spending and making less 'risky' choices. This reinforces their mental illness, preventing them from improving their circumstances. In the UK and the US, more than a third of disability payments are directly due to mental illness. Additionally, total employment could be 4% higher if individuals with poor mental health were supported.



While costs are incurred by the individual, a large cost is borne by society and its taxpayers. Mental health illnesses lead to a greater burden on physical health care. This is because they often make physical conditions worse, increasing mortality rates, and have greater healthcare costs compared to equally ill people without mental health problems. People with mental health problems tend to not look after themselves as well, exercising and consuming balanced diets less. As well as this, some studies report greater worry can often mean increased visits to doctors. In the UK, the overall costs of mental health are substantial. The 2024/25 planned spending is over eighteen billion pounds, and the wider economic cost, including productivity, is around 300 billion a year. That is nearly double the NHS's entire budget and not too far off the estimated impact of another pandemic on the UK's healthcare system. Mental illness is also a contributing factor to crime since most offenders are those with pre-diagnosed disorders. For context, the quantifiable costs of crime to the UK are around 6.5% of its GDP.

While mental health challenges, which translate to lower output and productivity, are widespread, economic inequality increases their effects. Poorer countries face similar prevalence, but the burden differs significantly because of the different support and services available. Even in developed economies, only a small minority of people facing anxiety disorders or depression receive treatment. This is despite the fact that significant savings on welfare benefits and physical healthcare would make support systems self-financing. To combat the large costs, currently countries spend very little on mental health care, with developed countries spending less than one per cent of national income and poorer economies far less. Without equitable access to support, this underinvestment would widen inequality, as the experience of poor socio-economic disadvantages like low incomes, poor housing, debt and poverty are commonly associated with worse mental health.

At the moment, mental health is not at the top of the government's agenda. Yet it should become a priority for governments to ensure well-targeted mental health policies to reduce the burden on the economy. Making treatment more accessible would allow for individual lives to be improved and greater productivity and savings on healthcare. Ultimately, economics and mental health are inseparable; mental illness causes clear individual, societal and economic pain, yet mental health spending and support remain inadequate.

Senior Ramadan Essay Winner

Alternatives to GDP

Ali-Mansur Valiyev

I – Introduction

Gross Domestic Product – GDP – was created as a measure of aggregate economic output (Vanham, P., 2021). At its core, it totals consumption, investment, government spending and net trade (Grittayaphong, P., 2023). Simon Kuznets, the pioneer of national income in the 1930s, warned early that GDP was never meant to be a comprehensive gauge of national well-being (Vanham, P., 2021). GDP captures market production and spending, but it forgets other crucial aspects of economic prosperity. Therefore, major 'beyond GDP' metrics have been created to consider the various facets of prosperity.

II – Human Development Index (HDI)

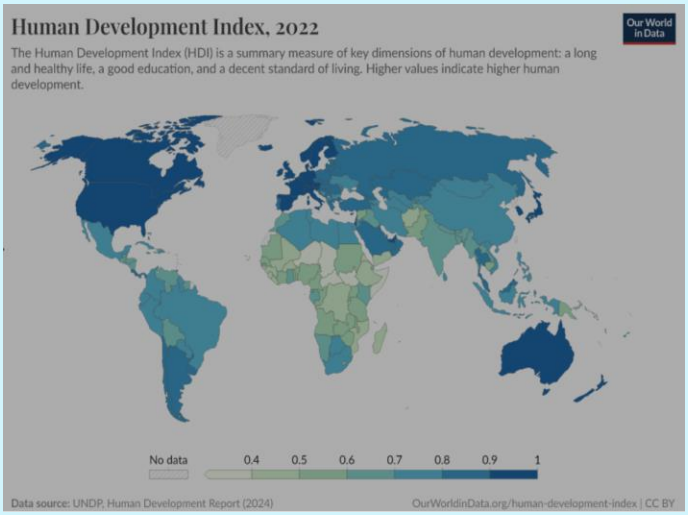


Figure 1: Global HDI Scores (Our World in Data, 2022)

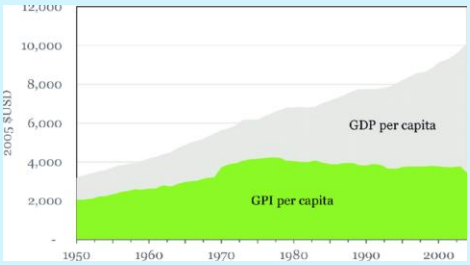
The Human Development Index (Figure 1) was the first global attempt to progress beyond GDP alone (Investopedia, 2020). The HDI assesses a country's ability to meet three aspects of human development: health, education and standard of living (Investopedia, 2020). These aspects are quantified in life expectancy at birth, years of schooling, and gross national income (Stlouisfed, 2023). These are then combined into a single value from 0 to 1 using a mean, creating the HDI.

HDI was the first metric that shifted the world towards the well-being of people. By including both health and education, it incentivises policies which are aimed at improving literacy, schooling, and life expectancy, rather than economic growth at their expense. For example, countries with similar GDPs may have varying HDIs, which helps identify effective policies (Investopedia, 2020). However, the HDI can still be considered a narrow metric for prosperity. It excludes many important factors, such as inequality, poverty and freedom in a nation (Investopedia, 2020). Even the UNDP states how HDI is "not a comprehensive measure of human development" (Investopedia, 2020).

III – Genuine Progress Indicator (GPI)

The Genuine Progress Indicator aims to measure net economic welfare by answering a simple question: "Is our economic activity actually improving societal well-being?" (Hayes, A., 2023). It distinguishes between economic activity that adds or diminishes well-being by adding or subtracting values for 26 economic, social and environmental factors from GDP. This creates a metric which can diverge from GDP in cases where economies grow but through social problems and environmental harm. For instance, in the US, while GDP per capita rose steadily from the 1950s to the 2000s, GPI per capita stayed the same, even declining after the 1970s, as shown in Figure 2 below (Rice, R. E., 2021).

Figure 2: US GDP vs GPI per capita (Rice, R. E., 2021)



GPI is able to provide a more holistic and quality-adjusted perspective on prosperity. By integrating factors such as pollution, volunteerism and crime, GPI is able to align economic growth closer to what actually improves the welfare of people. It allows for policymakers to pursue prosperity through improved standard of living rather than simply raw economic output. Thus, applications of GPI are growing, as several governments have experimented with GPI as a metric. For instance, the U.S. states of Maryland, Vermont, and Hawaii have implemented GPI to help guide their policies (Grittayaphong, P., 2023). On the other hand, GPI may be inaccurate due to subjectivity. Due to the sheer number of intangible metrics that GPI encompasses, this makes fair comparison difficult. Thus, it means that GPI is less transparent and comparable, as it is not as standardised nor routinely produced as GDP or HDI.

IV – Multidimensional Poverty Index (MPI)

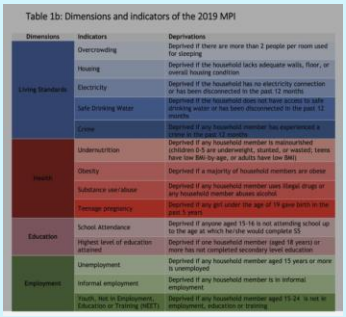


Table 1b: Dimensions and indicators of the 2019 MPI

Dimensions	Indicators	Deprivations
Living Standards	Overcrowding	Deprived if there are more than 2 people per room used for sleeping
	Housing	Deprived if the household lacks adequate walls, floor, or overall housing condition
	Electricity	Deprived if the household has no electricity connection or has been disconnected in the past 12 months
	Safe Drinking Water	Deprived if the household does not have access to safe drinking water or has been disconnected in the past 12 months
	Crime	Deprived if any household member has experienced a crime in the past 12 months
Health	Undernutrition	Deprived if any household member is malnourished (children 0-5 are underweight, stunted, or wasted, teens have low BMI-by-age, or adults have low BMI)
	Obesity	Deprived if a majority of household members are obese
	Substance use/abuse	Deprived if any household member uses illegal drugs or any household member abuses alcohol
	Teenage pregnancy	Deprived if any girl under the age of 19 gave birth in the past 5 years
Education	School Attendance	Deprived if anyone aged 15-16 is not attending school up to the age at which he/she would complete S5
	Highest level of education attained	Deprived if one household member (aged 18 years) or more has not completed secondary level education
Employment	Unemployment	Deprived if any household member aged 15 years or more is unemployed
	Informal employment	Deprived if any household member is in informal employment
	Youth, Not in Employment, Education or Training (NEET)	Deprived if any household member aged 15-24 is not in employment, education or training

Figure 3: Multidimensional Poverty Index 2019 (Seychelles MPI Report)

The MPI focuses on the other side of economic prosperity – the absence of basic necessities. It is composed of 14 indicators, each grouped in 4 sections – health, education, standard of living and employment (Hasell et al., 2024). Each indicator has a cutoff for deprivation. For example, if your house does not have stable walls or floors, this can be considered housing deprivation. These groups and deprivations can be seen in Figure 3 above. A household can be considered multidimensionally poor if it is deprived in at least one-third of the weighted indicators (Hasell et al., 2024).

MPI provides a comprehensive view of poverty and well-being by capturing a range of deprivations that GDP or income poverty misses. For instance, if a country has low monetary poverty but many people lack sanitation and education, the MPI will reflect that gap. The metric currently covers over 100 countries in the developing world (Hasell et al., 2024). It has brought to light countries where monetary poverty is low while MPI is high and encompasses more than 1.1 billion people worldwide (Nations, U., 2023). However, MPI is still a partial measure of prosperity, focused only on the poorest in a nation, and therefore does not directly assess national welfare or quality of life for the middle- or high-income groups in the economy. Additionally, MPI depends on survey data that may lag by a few years and at times lacks certain indicators for various countries (Wikipedia Contributors, 2019). This is because surveying may not be regular and comprehensive in some nations, while in others, people may not be willing to take surveys to disclose the information needed for the MPI.

V – Conclusion

These alternative metrics each show different aspects of prosperity which GDP fails to capture. However, there has not yet been one measure that incorporates all of these aspects to truly capture economic prosperity in all of its forms. Inherently, economic prosperity is multidimensional and complex; an ideal metric would need to capture both objective and subjective measures. Hard statistics – such as unemployment and life expectancy – as well as wellness measures – such as wellbeing – need to be merged to create one metric that provides an all-encompassing view of the economic, social and environmental state of nations.

Generally, this pursuit of alternative measures to GDP highlights a fundamental change in our understanding of prosperity. While GDP remains a useful measure, it is blind to equality, sustainability, and human well-being. Therefore, these alternative measures aim to fill in the blind spots – creating a world which aims to make the people, rather than the state, more prosperous as a whole. While the search for a metric for economic prosperity as universally accepted as GDP continues, these alternative measures signal not just an evolution of metrics but a redefinition of what it means to prosper.

Senior Ramadan Essay Winner

Trumponomics

Harihar Rengan

Introduction & Current Impacts

US President Donald J. Trump has been in office for just over 2 months and has already signed 93 executive orders (The Federal Register, 2025). His economic policies, known as "Trumponomics", are a blend of free-market libertarianism and protectionism, treating the US as a business, with himself as the CEO. Already, his revolutionary actions as president have had a myriad of implications for the foreseeable future, including on the markets.

Figure 1 – Source: (CNN, 2025)

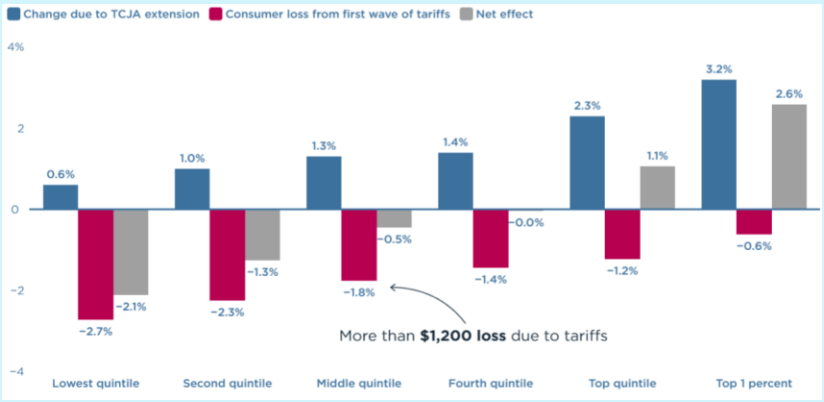
CNN believes that the market is currently being driven by 'extreme fear'. This shows a lack of consumer confidence in Trump's economic policies, being described as 'erratic' by 57% of Americans, according to a Reuters poll. In the same poll, Americans labelled inflation as their 'biggest concern' and have voiced unease towards the potential impacts of tariffs on living expenses, which economists predict could cost Americans an additional $1200 per year (Clausing & Lovely, 2025).

The loss of confidence has a clear impact in the currency markets, where, as of 13/3/2025, the US dollar has already depreciated 3% against the British pound. In times of fear, the dollar usually appreciates as demand goes up for a stable currency. The dollar's depreciation indicates the influence of uncertainty. Uncertainty has also caused the markets to plummet, stemming from Trump's sudden policy announcements and repeated backtracking; as of 23/3/2025, the S&P 500 has fallen 7% since January 20th, and Trump himself has twice refused to rule out the possibility of a 'transitory' recession (CNN, 2025).

Tariffs & Protectionism

As the president, Trump has unbridled control over foreign policy, which includes tariffs. He has used tariffs as a negotiating tool, aiming to engineer a favourable reset. Such protectionist policies aim to reduce dumping and make domestic firms more competitive. If the price of imports Increases beyond the price of domestically produced goods because of tariffs, the demand for American goods increases. This results in a derived demand for labour, meaning more people earn a wage. This leads to increased consumption, driving an outward shift in aggregate demand and leading to economic growth. Furthermore, the increased profits and average incomes lead to greater direct tax revenue, as well as the increased government revenue because of the tariffs themselves. During his Congress address, Trump has also claimed that this America-first policy has already attracted $1.7 trillion of investment since tariffs incentivise firms to move their supply chains into the US.

Figure 2 – Source: (PIIE, 2025)



However, tariffs shift supply inwards, increasing the cost of production for firms, most of whom will pass this to consumers. This leads to increased prices from cost-push inflation. Trump's tariffs may also incur retaliatory tariffs, making American exports less competitive, which hurts export-led industries. These negative consequences are propagating fear through Wall Street, which has led to selloffs. Trump's rapid backtracking is also worrying for investors; he recently backtracked on 50% tariffs on Canadian steel and aluminium six hours after making the bold threat.

Additionally, Trump has employed a populist rhetoric (Thulin, 2025). His tariffs appeal to those who are or have been employed in the US's sunset industries, such as the slowing manufacturing industry. Tariffs protect these industries from foreign comparative advantage. Unfortunately, these are the people that soaring prices could hit hardest. As shown in Figure 2, Trump's Tax Cuts and Jobs Act (TCJA) extension eases the real effect of tariffs on purchasing power, but its effects are highly unequal across income groups. While higher-income households experience a net positive effect due to the TCJA extension outweighing tariff-related losses, low- and middle-income households still face a net negative impact, with tariffs having disproportionate effects.

Government Spending & The Department of Government Efficiency

Trump also signed Executive Order 14158, which created the Department of Government Efficiency (DOGE) with Elon Musk as its head (The White House, 2025). Some see this as another corrupt, 'anti-establishment' policy of Trump's demagogy, with DOGE's cuts acting only to fund legally vulnerable, populist tax cuts (Ziv, 2025), whilst others view this as a genuine effort to overturn the US national debt, improve government transparency, and end the wastage of taxpayer money (Calvert & Torry, 2025).

DOGE has saved $807.45 per taxpayer (Department of Government Efficiency, 2025) by terminating a host of federal contracts. Although this does not match the rising household expenses, it is still a significant saving. Savings are documented on DOGE's 'Wall of receipts', highlighting their commitment to transparency.

DOGE does have several pitfalls, however. For one, the savings per taxpayer may not be realised by the taxpayers themselves, as the government still needs this revenue to overturn the fiscal deficit. Furthermore, unlike Trump's control over tariffs, Congress controls federal expenditure. As a result, DOGE's access to federal databases and emails, the freezing of funds such as USAID, and mass firings of federal workers have been legally challenged, sometimes being ruled as unconstitutional (Pierson, 2025). Musk has also been seen backtracking on his claims, as he did with DOGE's aim to cut $2 trillion of government spending, which has now been shown to be unfeasible (NBC, 2025). Grounds for challenging Musk's bid for deregulation also include potential conflicts of interest (Stone, 2025).

Speculation, Other Theories & Conclusion

Some speculate that the dip in the markets was intentional, theorising that Trump intends to bring the economy to the edge of a recession (Hale, 2025). This would force the Federal Reserve – which is independent of the government – to cut interest rates. Lower interest rates increase economic activity due to the low cost of borrowing, which leads to economic growth – something which Trump has continuously emphasised throughout his campaign. The lower rates also deduct from the rate on Treasury Bonds, which reduces the government's future spending on net interest, helping balance the fiscal deficit.

However, others fear that Trump's worst economic impact will be on long-term confidence, stemming from his politicisation of government institutions and radical populism, which could hurt Americans for years to come (Butler, 2025).

To summarise, Trump could engineer a reset in his favour through tariffs, yielding short- to medium-term gains. In the long run, Trump's policies need to revive local industries, attract investment, and help balance the fiscal deficit to succeed, whereas short-term inflation and the limits of executive power could inhibit these benefits. As a polarising economic philosophy, Trumponomics remains shrouded in uncertainty, and it remains to be seen if President Trump will truly Make America Great Again.

Junior Ramadan Essay Winner

If Everything Was Free...

Reyansh Gupta

The idea of a world where everything is free is intriguing and thought-provoking. On the surface, it may seem like an ideal scenario—people would no longer need to work for money, poverty would disappear, and everyone would have equal access to resources. However, such a system would have profound economic, social, and psychological consequences. This essay explores the potential outcomes of a world without monetary exchange, analysing its effects on productivity, resource allocation, societal behaviour, and human motivation.

Economic Consequences

One of the most immediate and significant impacts of making everything free would be the collapse of traditional economic structures. Modern economies operate on supply and demand, where prices regulate the distribution of resources. If goods and services were free, demand would skyrocket while supply would struggle to keep up, leading to severe shortages.

Moreover, businesses rely on profits to function, pay employees, and invest in innovation. Without financial incentives, companies would cease to exist, and industries would collapse. Essential services like healthcare, education, and infrastructure development would struggle to operate efficiently. While a government could theoretically oversee production and distribution, such a system would resemble a centrally planned economy, which has historically been inefficient (Hayek, 1944).

Resource Allocation and Scarcity

Another major issue in a world without prices is resource allocation. Money helps regulate consumption by discouraging overuse and ensuring that goods go to those who need them most. If everything were free, people might take more than necessary, leading to hoarding and widespread scarcity.

A practical example of this phenomenon occurred in Venezuela when government-mandated price controls on essential goods led to shortages (Hausmann, 2015). When prices do not reflect supply and demand, resources become misallocated, often benefiting the privileged or well-connected rather than those in genuine need.

The Impact on Work and Productivity

If people no longer needed to work for money, motivation to perform jobs—especially those that are difficult or undesirable—would decline sharply. While some might continue working out of passion, the majority would likely reduce their efforts or stop working altogether.

Studies on universal basic income (UBI) provide some insight into this issue. Experiments in Finland showed that while UBI improved well-being, it did not significantly increase employment rates (Kangas et al., 2019). If even a modest financial safety net reduces work participation, a world where everything is free would likely see an even greater decline in productivity.

Psychological and Social Effects

Beyond economics, making everything free could have profound psychological and societal impacts. Money and trade create a sense of value and personal achievement. Without these mechanisms, individuals might struggle to find purpose and meaning in their daily lives.

Furthermore, societies function on principles of exchange and reciprocity. If goods and services were freely available without effort, it could erode social cohesion by removing incentives for cooperation. The sense of entitlement might rise, and interpersonal conflicts over resource access could increase.

Alternative Solutions

While making everything free is unrealistic, certain policies can address economic inequality without dismantling market structures. For instance, social welfare programs, universal basic income, and subsidised essential services can improve quality of life without leading to the problems outlined above. Countries like Sweden and Canada demonstrate that a balance between free services and market-driven economies can lead to prosperity and social well-being (Esping-Andersen, 1990).

Conclusion

In conclusion, while the idea of a world where everything is free may seem utopian, it is ultimately impractical due to economic collapse, resource misallocation, decreased productivity, and psychological consequences. Money plays a crucial role in regulating supply and demand, motivating work, and maintaining social stability. Instead of making everything free, policies that reduce economic inequality while preserving market incentives are a more viable solution.

Junior Ramadan Essay Winner

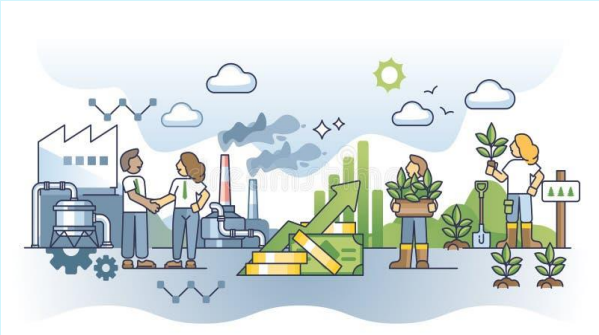
Can The Environment Recover From Being Pushed Down The Global Agenda?

Simar Bhasin

To unpick this question, what does ‘pushed down the global agenda’ mean? This is where environment policies and protection will be delayed or a lower priority due to other urgent issues such as economic crises, geopolitical tensions and pandemics. This results in less attention and money towards addressing environmental problems. This is evident in the global covid-19 pandemic, where attention to climate change was diverted due to the response to the pandemic, delaying major events like COP26 and lowering attendance due to vaccine requirements. Additionally, climate change negotiations and policies lost momentum as global priorities moved towards recovering the economy and healthcare. Moreover, the greenhouse gas reduction target was not achieved, reinforcing how climate change was not prioritised. Furthermore, due to these delayed actions, there have been worsened biodiversity loss and accelerated global warming, which have caused irreversible damage to sea-level rise, disrupting habitats and ecosystems.

However, there are policies and international agreements to aid environmental recovery despite the delays from pandemic or geopolitical issues. For example, due to the Russia-Ukraine conflict and Europe's dependence on Russia’s energy, it has led to independent initiatives like the European Green Deal and REPowerEU, which emphasise an increase in the use of clean and diverse energy sources. These initiatives have led to more investments into renewable energy. These responses to global politics and pandemics drastically aid recovery towards the environment.

In conclusion, while environmental protection and policies have faced challenges because of the Covid-19 pandemic and political issues, agreements like the European Green Deal and others to positively impact the environment suggest a sense of recovery. Although some damage is irreversible, if there are still many global initiatives as well as international agreements, they can enable a steady recovery for the environment.



Is Free Trade Still a Net Positive in the 21st Century?

Arhan Lakhiani

Free trade is the exchange of goods and services across borders without any forms of protectionism such as tariffs and quotas and has been considered to be a cornerstone of global economic growth. Advocates argue that it promotes efficiency, productivity, innovation and consumer choice while critics underline its potential to worsen inequality and degrade the environment. In the 21st century, a new set of challenges have cast doubt on the benefits of free trade: economic nationalism, climate change, supply chain vulnerabilities and growing inequality. This essay evaluates whether free trade still has a net positive impact in the 21st century considering different aspects of economic advantages with social and environmental costs.

The Economic Benefits of Free Trade

Free trade heavily favours economic growth to a large extent. According to the theory of 'Comparative Advantage', countries can specialise on particular production of goods in which they are relatively more efficient and skilled at. For example, China specialises in electronic devices; Bangladesh specialises in textiles and Germany specialises in cars. This specialisation encourages creativity and productivity while increasing global output as each country focuses on their particular task and constantly tries to improve and innovate. It also allows larger firms like TNCs (Transnational Corporations) to offshore produce. This helps to lower production costs and increase profits for a firm as well as provide thousands of jobs to other countries. For instance, in 1978, when China started its 'Open Door Policy', this allowed large corporations such as Apple to relocate to China which contributed to over 700 million people being lifted out of poverty. Evidently, this was a huge economic success and also meant this could increase spending; thus leading to the multiplier effect and resulting in economic growth.

Moreover, empirical studies also support the argument of large positive benefits. This can be seen through the role of trade liberalisation. Historically, major trade liberalisation efforts have coincided with large periods of economic growth. For example, the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947 and the World Trade Organization (WTO) in 1995 have led to significant reductions in global tariffs. The average global tariff rate has declined from over 20% in 1947 to less than 5% in many countries today. Through these efforts of trade liberalisation, many developing economies have been able to integrate themselves into the global market, attracting more foreign direct investment (FDI). For example, countries like India and Vietnam adopted liberalisation policies in the late 20th century, leading to a rapid rise in GDP and poverty reduction. India began liberalising its economy in 1991 and had a GDP of $270 billion and in just 19 years, grew its GDP to $1.7 trillion in 2010.

The Emerging Costs of Free Trade

However, the costs of free trade have been more prominently emphasised in the 21st century than in the past. An increase in income inequality has been one of the most significant costs associated with free trade. In many developed countries, the advantages of free trade have been unequally distributed where corporations can benefit by shifting production to other regions, resulting in structural unemployment in the host country. For example, Sheffield experienced substantial structural unemployment in the steel industry when production shifted to the east due to the global shift. This drastically reduced the workforce from over 100,000 individuals to less than 3,000. This huge number in job loss has significantly affected lower income citizens in the UK and has contributed to increasing the inequality gap where the top 1% own around 23% of total UK wealth and the bottom 50% own just 9%.

Moreover, a key loser when mentioning about free trade is undeniably the environment. Global trade often incentivises production in countries with lax environmental regulations, leading to a 'race to the bottom' in environmental standards. Additionally, transporting goods across long distances increases carbon emission undermining global efforts to combat climate change. Currently, countries like China alone contribute to over 12 million tons of carbon emission annually! This significantly reduces air quality which can worsen an individual's health as well as add further stress to the healthcare industry.

Adaptation is essential

While free trade does have certain tradeoffs, its benefits of economic growth cannot be ignored and therefore we cannot invalidate the overall benefits of trade. Rather, they highlight the need for better governance and governmental policies. Governments can be a key stakeholder in mitigating and reducing inequality through job retraining programs such as in the U.K with its Technical Levels (T levels) as well as with progressive taxes to help protect the lower-income citizens. Furthermore, the government plays a crucial role in providing the necessary regulations to limit environmental damage and thus must heavily regulate the policies they implement and ensure firms follow these legislations. An example of a strong governance effectively reducing environmental damage is the UK as they are following an Emission Trading Scheme (ETS) where they provide a finite supply of pollution permits. This allows the government to control the level of pollution emitted and can allow them to slowly reduce carbon emission every year. This is evident as carbon emissions in the UK have reduced by 3.7% from 2023 to 2024.

Concluding Remarks

Even though free trade has negative impacts, it still holds significant benefits if managed wisely. It remains a powerful driver of economic activity and global integration. Nevertheless, in the 21st century, these benefits are increasingly dependent upon the ability of the government to correctly implement policies to ensure all parties receive a fair and equitable benefit. Rather than turning to protectionism, the global community must strive to make smarter choices to address the downsides of inequality and environmental damage. In this way, free trade can continue to be a net positive for the world.

Market Failure in the 2008 Financial Crisis

Aadit Sen

The 2008 financial crisis was one of the most devastating economic events of the 21st century, leading to unemployment, significant losses of wealth and a global recession. Various structural factors such as asymmetric information, adverse selection and moral hazards as well as behavioural factors including herding and loss aversion compounded to cause large-scale market failure, resulting in the infamous US housing market bubble.

Market failure is the inefficient allocation of resources within an economy, leading net welfare not being maximised. During the financial crisis, market failures within the housing and financial markets snowballed into a breakdown of the financial system.

One of the key causes of market failure during the financial crisis was information asymmetry, where one party knows more or better information than the other party in a transaction. Within the housing market, mortgage lenders were offering subprime loans to risky borrowers without conducting proper risk assessment. Borrowers had more accurate knowledge of their own financial situation than the banks, allowing them to take advantage of this and maximise their benefit, known as adverse selection. This encouraged borrowers to take on loans that they usually wouldn't be able to pay back, as many believed that house prices would continue to rise, and they could sell their houses to pay off loans. Many borrowers were offered NINJA loans (no income, no job, no asset loans) with very little to no required documentation. These loans were bundled up into mortgage-backed securities and sold to investors. More complex financial products such as collateralized debt obligations were also developed. Since all the risk was passed onto investors, banks were loose with lending requirements, causing more high-risk borrowers to enter the market, increasing adverse selection. Over time, the number of subprime borrowers increased, creating hidden risk within the market for mortgages. Furthermore, reputable credit rating agencies such as Moody's and Standard & Poor's gave ratings as high as AAA to risky MBS and CDOs. Due to how complex the products were, there was no way for investors to value the products based on the underlying assets, causing an information loss due to the difficulty of getting through to the assets themselves (Gorton, 2009). This information gap would lead to the overproduction and mispricing of MBS and CDOs, leading to market failure.

Other important behavioural causes of market failure during the financial crisis include herding behaviour and loss aversion. Herding behaviour is when individuals seek to mimic the actions of others instead of making their own decisions, leading to irrational decisions. Loss aversion is when individuals perceive losses to be more harmful than gains of the same value. Herding behaviour occurred in the housing market, among lenders, and within financial markets. Due to excessive optimism about growth in house prices, consumers and bankers exhibited herding behaviour through taking on subprime loans (Chang, 2021). Additionally, investors were rushing to purchase mortgage-backed securities and collateralized debt obligations, because of other investors doing so. Loss aversion reinforced herding behaviour. Banks and investors feared missing out on profits while competitors gave out subprime loans/ invested in these assets, resulting in them ignoring potential warning signs and making irrational decisions regardless. One potential factor to support this could be moral hazard; these organisations believed that they would be bailed out by the government as they were too big to fail, encouraging them to take on excessive risks. Overall, the herding and loss aversion behaviour would prompt irrational decision-making, creating asset bubbles and resulting in market failure.

Asymmetric information between investors and the sellers of these products, caused adverse selection by borrowers, resulting in rising defaults on mortgages. Because of herding behaviour and loss aversion by financial institutions, this led to a period of mass bank foreclosures, increasing the supply of homes dramatically, and reducing prices. For some people, this meant that the value of their homes was far less than the value of their mortgage, so they started defaulting too, causing prices to spiral downwards further. Some banks, for example Lehman Brothers went bankrupt, while others faced significant losses, prompting them to tighten lending standards and inducing a credit crunch. Consequently, even trustworthy firms and individuals couldn't access loans, slowing down growth as companies couldn't finance new projects to overcome losses. Secondly, due to diminishing house prices, the negative wealth effect occurred, where individuals felt worse off, reducing consumer confidence and consumption. This in turn led to a lack of demand throughout the economy, causing widespread job losses. The collapse of the housing market, combined with banks failing and the lack of liquidity caused the financial system to fail, eventually leading to a global recession.

The Finfluencer Façade: Social Media and the Distortion of Financial Advice

Jet Selkus

The Problem

The proliferation of social media users in the 21st century has seen millions of influencers use their platforms to share their insights, promote products and create their own brands. The growing and present concern is the rise of unqualified 'finfluencers' (financial influencers) sharing financial advice and promoting financial schemes, often targeting the most vulnerable of audiences, like the young, financially illiterate and low-income groups, who lack financial stability. Whilst some may be acting with benevolent intentions, others may be ignorant or driven by sheer profit-motives, leading to misinformation and high-risk schemes.

Steve Smart, of the Financial Conduct Authority (FCA), highlights the dangers of such promotions that often "turn out to be fraud or a scam" with individuals "losing a significant proportion if not all of their money" according to the Financial Times (Arnold M, 2025). Subsequently, this has raised serious concerns over consumer protection and the integrity of the wider market. The risk is exacerbated by what the FCA has described to be a failure of major media groups to act on the "whack a mole" problem of account switching to promote unauthorised and potentially risky financial schemes, even after FCA requests for account closure. (Arnold, 2025).

This article assesses the economic consequences of unqualified or unregulated advice, whilst spreading awareness of unauthorised financial schemes to protect from asymmetric information, and examine how the problem can be tackled, spotlighting the pioneering efforts of countries like the UAE.

The Economic Consequences: A Threat to You and Me?

The true danger lies in the asymmetric information shared and the appearance of credibility that 'finfluencers' possess. To the average person, these figures may appear to be legitimate by promoting successes and deliberately omitting failures. Hence the idea of deception evolves, consumers make misinformed decisions, like investing in schemes they don't properly understand and suffer financial consequences. Demographically, young adults are the most susceptible. This is evident in how reality TV personalities attract predominantly young audiences, for instance Love Island stars and similar influencers. The reason this leads to greater risk is due to a lack of experience causing impulsive decisions without consideration of the long-term risks. Moreover, some critics may point towards a lack of financial education. In January 2025, Santander UK published their research that of 2000 18–21 year-olds, just 26% received any financial education in school, meaning millions in the overall economy don't truly understand how to manage money. This is even more concerning as almost 1/3 of young adults are turning to TikTok influencers for financial education (Santander UK, 2025). The risks are exacerbated by younger generations having less financial security and thus lower credit ratings, making financial recovery harder.

The Scale of Unauthorised ‘Finfluence’ and How Weak Regulation Risks Moral Hazard

Beyond personal losses, the lack of regulation creates systemic issues, and in truth, there are hardly any consequences for unauthorised ‘finfluencers’. As of April 30, 2025, the FCA received around 25,000 reports of unauthorised business on social media. Despite this, the FCA only charged 9 people with a combined 4.5 million social media followers reflecting the scale of vulnerability, but also the lack of action from the media operators in terms of regulation and consequences. This is clearly a moral hazard as consumers bear the burden and promoters face minimal consequences, an issue the FCA has magnified.

The Unauthorised ‘Finfluencer’ Crackdown

The FCA’s calls have been answered in other countries, yet as of June 2, 2025, the UK was yet to respond. The UAE has recently become a global pioneer in mitigating social harm from misleading ‘finfluence’ on the likes of TikTok, Instagram and YouTube regarding the likes of stocks, IPOs and market trends by requiring licences from the Securities and Commodities Authority (SCA). If ‘finfluencers’ continue producing financially influential content without a license they risk being penalised by the SCA. Thus, viewers are urged to refrain from obtaining advice from unlicensed content creators, reducing the deadweight welfare loss to society caused by asymmetric information and misinformed investment decisions. (Nair, 2025). Despite clear arguments for the licences, there is certainly a case for opposition in the UK too. Despite preventing financial harm to consumers by reducing misinformation and filling information, concern that the licences may infringe on free speech, a democratic cornerstone, and thus enforcement may be difficult to justify, despite consumer protection and potentially greater consumer confidence. (Dunstan, 2025).

In conclusion, the ‘finfluencer’ problem remains largely unaddressed in Britain, whilst other countries like the UAE have taken pioneering action through providing SCA licences. Although the UAE’s licensing regulation is still in its early stages, it exhibits promising potential. If the licenses successfully protect consumers from unauthorised financial advice and schemes, the UK and FCA must unequivocally take similar action. Without intervention, the cost of misinformation will persist to be borne by the most financially vulnerable, young adults and low-income groups.

Tariffs: China and the United States of America

Safa Mohideen

The US China trade war began in 2018 when the United States imposed tariffs on Chinese imports accusing China of dumping products at low prices, intellectual property theft and overall unfair trade leading to a similar retaliation from China on American goods. This trade war influences global trade, and remains an active conflict today affecting consumers, firms and economies across the world.

This ongoing trade conflict was triggered by many long-standing concerns; The crux of this trade war lying in the fact that the United States has consistently imported more from China than it exports creating a large trade deficit of over 300 billion dollars in 2018. Viewing this as an unequal trading relationship the US imposed its first direct tariff increase by 25 percent, under trumps administration, on $50 billion worth of Chinese commodities in March 2018. This was further heightened through accusations of China failing to protect patented products, with these tariffs aiming to slow Chinas rate of technological innovation and prevent intellectual property theft. A recent retaliation from China was the implementation of export controls on rare earth materials, of which the US relies on China for 70% of its rare earths and metal imports; This being predicted to impact the US defense industry substantially as rare earth materials are used in many military and manufacturing fields.

These tariffs have various effects on both China and the US. Firstly, they will in theory increase revenue for the US government by encouraging consumer spending on nationally produced goods, as the cost of exported goods increases, therefore protecting US domestic producers and enhancing the US economy. However, this could also increase costs of production for US firms as raw materials used for production of their product that are foreign sourced would be substantially more expensive leading to firms needing to search for alternatives. As for China, these tariffs caused a large loss of exports as Chinas main trading partner has decreased demand for their exports.

The trade in goods between the two economic powers summed to around $588 billion last year with the US in an obvious current account deficit equal to around 1% of the US economy. Although the trade barriers Trump imposed on China in his first term as president helped bring the Chinese imported goods in America down from a 21% share of Americas total imports in 2016 to 13% last year, if they were to continue in a trade war global investment would also likely suffer. China is the world's biggest manufacturing nation and is already running on a large surplus, this means that if these products were unable to enter the US or heavily taxed upon Chinese firms could end up dumping them abroad- exporting them for a much lower price. While this would be beneficial to consumers it could also outcompete local producers in other countries globally, even more so than currently, which would threaten jobs and wages for workers in those countries.

Book Review: GDP – A Brief and Affectionate History

Ali-Mansur Valiyev

If you ask anyone what the best way to measure a country's wealth is, at least 95% would say GDP, and that's for good reason. As this year's winner of the Ramadan Essay Competition, I was gifted the book 'GDP – A Brief and Affectionate History' by Diane Coyle – a professor of economics at the University of Manchester. It takes a look at GDP from a historical lens, examining how it became the world's most influential economic statistic – and yet why it might need rethinking in today's world. In my first essay, I discussed the limitations of GDP as an economic indicator for a country's growth, examining how it can miss out on some important factors that contribute to the success of a nation. After reading through Diane Coyle's perspective on GDP, it is clear that I was right in some places but mistaken in others. Covering the contents of this book in one review is simply impossible, so this write-up will offer a more personal lens on what expanded my own thinking regarding the nature of GDP.

First, Coyle begins with an overview of the evolution of GDP. It is the idea that measuring a country's output isn't new, as its origins date back to the 17th and 18th centuries. This is where early economists tried to find a metric to calculate the wealth of nations. What is most interesting is where the necessity for measuring national income came from – war. It began with early pioneers such as William Petty 'producing estimates of income and expenditure . . . with the aim of assessing the country's resources to fight a conflict'. Essentially, the initial concept of national income was born out of crisis.

Yet, similarly, so was modern GDP. The definitions we use now date back to two seismic events in modern history – the Great Depression and World War II. Measuring 'the sum total of goods and services produced' was crucial for the US to mobilise resources in WWII. And it wasn't only the US; there were 'other pioneers' like Germany, Holland and the Soviet Union, who all used GDP-like metrics for their military needs.

After the creation of the metric came the highs and lows of GDP. By the late 1940s, the adoption of GDP had become global, and it was on its way to becoming the true measure of economic success. The 'Golden Age' of capitalism was a time when GDP growth rates hit heights unseen ever before. 5%. Even 10%. GDP gains in this period coincided with rising living standards in Western economies. So, this underscored the idea that more GDP meant more prosperity. Nobel laureate Paul Samuelson even called GDP 'one of the great inventions of the 20th century'. And so, GDP was now the main metric used to plan and justify major economic policies.

Coyle also describes the evolution of GDP over time throughout the book. For instance, what counts as a part of 'the economy' was ever-shifting. For example, in 1953, the international standards for GDP were set, but later revisions were added that amended the standards, adding previously ignored sectors. As the world changed, so did GDP.

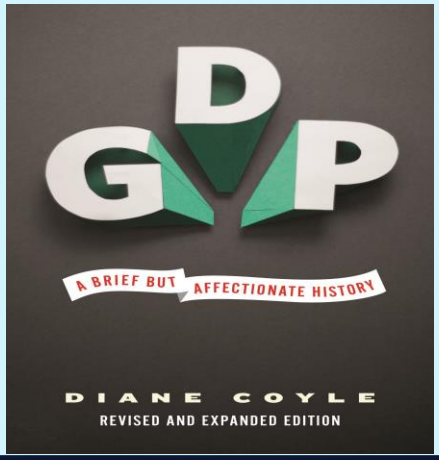
Because of this wide use of GDP, one of the main messages in Coyle's book is the very real strengths that GDP has. There is obviously a reason why it is called 'the most important number in economics'. GDP provides a consistent, standardised measure of a country's economic activity, allowing comparisons between nations and over time. This is unlike any other metric, making it incredibly useful for global economic analysis. Additionally, she emphasises how it brings order and clarity to an otherwise chaotic reality. It allowed for policy makers to have a big-picture view of millions of transactions, condensed into one figure. It enabled governments to identify when the economy was shrinking and by how much, critical in ending the Great Depression and later avoiding another one after World War II.

Without GDP, world economic policymaking would be unimaginable. It is a vital tool, helping steer decisions for economists around the world.

Yet despite GDP's 'usefulness', there are still things that the numbers cannot show. Throughout the book, Coyle puts emphasis on how GDP often fails to capture what truly matters in today's world. One of the main limitations that the book explores is the quality of growth and services. GDP inherently measures quantity in the form of output and spending but not quality. In modern economies which are dominated by services and knowledge work, this is a problem. As Coyle states, by GDP's logic, a musician who plays a piece twice as fast is twice as 'productive' in the eyes of GDP. Obviously, simply playing faster does not make a musician better, but through the lens of GDP, it is simply the output that matters.

Environmental degradation and sustainability are another facet which GDP lacks. It ignores environmental costs and resource depletion. It fails to consider resource depletion, simply considering it as economic output. Although new metrics such as 'green GDP' are starting to gain traction, these are yet to gain any real political backing. By only using current GDP, countries can be invisible to the dangers of unsustainable development, which can lead to severe long-term consequences.

These are only a few benefits and problems in the comprehensive overview that Coyle provides that I found to be most intriguing. Other notable insights were how surprisingly political the metric is, examples of how GDP figures have been used and misused and how GDP crowds out other conversations in the media. For anyone with even a slight interest in economics, this book is both engaging and enlightening. Coyle's way of writing is catchy, with lots of real-world examples that link everything back to the real world. For anyone interested in learning something new about GDP, this book is well worth your time.



The Impact of Sovereign Wealth Funds on the U.S. Economy

Aditya Tomar

Sovereign Wealth Funds (SWFs) are state-owned funds that governments use to invest surplus revenues typically obtained from oil, natural gas and trade surpluses. These funds currently control about $12 trillion in assets globally and this figure is projected to reach $18 trillion by 2030, giving them immense influence on global markets.

These funds began with the creation of the Kuwait Investment Authority in 1953, which was aimed at managing the country's oil revenue for long-term stability. Over time, many funds have been developed, with some of the largest including Norway's Government Pension Fund Global (over $1.5 trillion), China Investment Corporation (over $1.3 trillion) and Saudi Arabia's Public Investment Fund, known as the PIF, which controls over $700 billion in assets. SWFs were previously seen as passive investors; however, they have now evolved today, as they can be seen used in international diplomacy. The United States, which is the world's largest economy, is a major destination for foreign investment, attracting SWFs, which can bring several economic benefits but also geopolitical risks.

Investment Benefits

SWFs have become an important player in the US economy, providing capital for various sectors. Their investments include large-scale, long-term projects, and the capital injection into the US economy has several benefits. Key areas include:

- Real Estate: Funds such as the Qatar Investment Authority (QIA) have invested billions into major projects such as New York's Hudson Yards, which has allowed for urban development. This $25 billion real estate development has transformed an underdeveloped part of Manhattan into a hub of offices, residences and cultural spaces.

- Technology: SWFs have invested in U.S. tech firms, such as Norway's sovereign fund, which has holdings in companies like Apple, Microsoft, Alphabet and Nvidia, reporting profits of $222 billion. This promotes the growth of the technology sector.

- Clean energy: Funds have invested in sustainable energy projects, such as the PIF, which has invested in U.S. electric vehicle manufacturer Lucid Motors, which develops green transportation infrastructure.

This includes only some of the notably larger deals made by sovereign wealth funds, although there may be many more.

Geopolitical Risks

SWFs do have many benefits; however, they can cause concerns in national security. Many of these funds are directly controlled by foreign governments, which means that their strategic investments could be potentially used for political leverage and to gain access to certain industries in the country. This is prevalent with these SWFs investing, especially in areas such as defence technologies, telecommunications and important infrastructure.

In the UK, China's sovereign fund once gained a significant stake in London's Heathrow Airport, which has led to issues about important infrastructure being controlled by foreign powers like China, trying to gain more influence and control.

If a foreign SWF owns a large stake in a U.S. asset, such as a technology firm, which may be involved in cybersecurity and cloud computing, SWFs may get access to sensitive user or government data. These risks could allow these foreign entities to influence domestic markets and gain a potential advantage over the U.S.

The U.S. does have measures to prevent any of these risks through the Committee of Foreign Investment (CFIUS) to block foreign investments that may seem to pose national security threats. CFIUS has been effective for the U.S.; however, the growing scale of sovereign wealth funds would need more monitoring and regulation, which may take up resources for the government.

The Santiago Principles

In 2008, concerns began about the influence and lack of transparency of sovereign wealth funds as they started investing in major economies. As a result, a group of the world's largest SWFs met in Santiago, Chile, with support from the International Monetary Fund (IMF) to create the Santiago Principles, which are a set of 24 guidelines designed to improve how SWFs operate globally. These principles aim to ensure that these funds are invested for economic reasons and not for political ones to make sure that they are managed with transparency and responsibly.

The organisation, International Forum of Sovereign Wealth Funds (IFSWF), was created where their members voluntarily endorse the Santiago Principles. These principles focus on areas such as:

- Transparency and public reporting

- Risk management

- Prevention of political control from investments

As of 2016, 30 SWFs have signed up to the Santiago Principles, covering more than 80% of global SWFs assets or $5.5 trillion. For the U.S., these principles further allow foreign investment in the U.S. without a significant risk.

Trump's Visit to the GCC

During President Trump's 2025 Gulf tour, many investment deals were secured to strengthen the U.S. economy and build relationships with Gulf countries.
- Saudi Arabia: The Public Investment Fund (PIF) signed deals of approximately $600 billion focusing on sectors like AI, semiconductors and technology.
- United Arab Emirates: The UAE signed a deal of $1.4 billion over the next decade focusing on sectors like energy, manufacturing, and AI infrastructure like Saudi Arabia.
- Qatar: Qatar committed to investments of over $1.2 trillion with deals in defence, aviation, infrastructure and energy.

Trump's key aims with these investments are to increase domestic job creation, allow for more innovation in markets and increase injections into the US economy.

In conclusion, sovereign wealth funds will play an important role in the American economy by mainly providing significant capital for growth. However, their increase in size can create security risks and data privacy issues, which are important even though there are things like the Santiago Principles and committees to improve transparency. Trump's deals in the GCC show America's steps for strengthening their economic ties with other countries for long-term benefits.

The UK's Productivity Puzzle: An Unsolvable Paradox Or Policy Failure?

Andrew Cumming

Since the financial crisis of 2008, the world's sixth-largest economy has faced an unresolved and persistent issue with labour productivity. Measured in output per hour (GDP divided by total hours worked), the indicator anomalously lags behind other major metrics of economic performance, including GDP growth, employment, and FDI. As a result of this, the UK economy has taken several major hits, such as weaker potential for growth, stagnating real wage growth (ultimately leading to a decline in living standards), and a comparative disadvantage for British producers on a global scale. Despite the government's relentless efforts and billions in investment, the puzzle is still yet to be solved. Failure to do so year after year prompts the question: what is the true, underlying cause of the UK's productivity puzzle?

Since the severe recession of 2008-2009, the UK GDP has recovered smoothly on an upward trend, as well as increasing employment across the economy (source 1). Analysis of past trends suggests that productivity normally experiences a significant rise following a recession. However, this was met by a greater than proportionate change to hours worked and hence a complete stagnation in output per hour (productivity) and has resulted in weak development of living standards. In 2023, the UK productivity was 24% lower than it would have been relative to the pre-2008 trend rate; it currently grows at only 0.5% annually, compared to a healthy 2% prior to the crisis. This drop has cost the average UK household approximately 11,500 GBP. The data points very clearly to underwhelming productivity that must triple to 1.5% growth per year for better long term living standards. Since the crisis, we have seen billions invested into long-term development, such as training programmes and research and development subsidies, but the true economic benefits remain minimal, especially considering the growth in other developed, high-income countries.

The main problem for the economy emerges when evaluating relative productivity compared to the other G7 countries (source 2), where we can infer clear disparities between other leading nations and the UK. In 2019 alone, the US produced an estimated 28% more value added per hour than the UK, whilst the French and Germans were, respectively, 13% and 14% more productive than the UK. This allows these nations to achieve a comparative advantage (relative to the UK), where they can produce at a cheaper per-unit cost and provide a lower price to international consumers. This would therefore result in falling demand for UK firms, bringing workers out of jobs, creating a negative spiral that severely disrupts long-term growth. In fact, as a percentage of GDP, for net inflows of FDI the UK ranks the lowest of the G7 with -2.6%. At the same time, investment into research and development remains underwhelming, approximately 1.7% of GDP, compared to 2.9% in Germany and 4.6% in South Korea (all 2019). This leaves the UK economy trailing on a global scale in terms of both innovation and new technologies.

This introduces a number of structural issues in the UK. As of September 2024, the UK's debt-to-GDP ratio lies at 98.5% (ONS), which has accumulated as a product of 24 consecutive fiscal years with a budget deficit, with excessive spending as a result of numerous shocks, from the financial crisis to COVID-19. The government has also had to increase spending on debt interest repayments every year since 2020, becoming the fourth largest component of spending at 10% of the total budget. This has meant that there have been forced cuts to vital long-run sectors of the economy, including education and infrastructural investment. Since COVID-19, there have been 1.49 million students with 'persistent absences', showing the weak attendance of schools in the UK. These compounded issues show us an underlying problem for the labour force in the long run, with millions of untrained, low-skilled workers entering the workforce.

Furthermore, focusing more on the financial crisis specifically, the introduction of stricter policies and damaged confidence ultimately led to significantly less access to credit for the private sector. Commercial banks in the UK were forced to legally increase their capital holdings as well as enough liquidity to cover 30 days of outflows to mitigate future economic downturns. This reduced the number of loans that banks will lend to both consumers and private firms, limiting big-ticket spending and capital expenditure. In addition, losses to banks in 2008 exceeded 100 billion GBP, with a few major banks either collapsing completely or requiring major bailouts from the government. The scars from the financial crisis have been felt for many years as UK banks demonstrated significant depletion of confidence through their restricted availability of credit. This was mainly seen by the willingness of the banks to lend to new businesses, hindering the growth of these firms.

To conclude, the problem of productivity has restricted the complete development of the UK economy, reducing international competitiveness. A complex mix of structural issues within the economy directly contributes to the lagging productivity of the UK, suggesting that heavy investment into supply-side policies is required to correct the unsolved puzzle. Whilst the government have implemented a number of these policies to increase labour productivity, they have been largely unsuccessful.

Productivity compared with GDP, Employment and Total hours worked, UK, January to March 2008 to January to March 2015

Source: Quarterly National Accounts Q1 2015 and Labour Productivity Bulletin Q1 2015, ONS

Book Review: The Great Crashes by Linda Yueh (2023)

Harihar Rengan

What will the next great crash be?

The 2023 book, The Great Crashes, by Linda Yueh, Adjunct Professor in Economics at the London Business School and Fellow in Economics in St. Edmund Hall, University of Oxford, tells the story of the last ten great crashes in financial history, from the Great Depression to the COVID-19 Pandemic. This book covers a series of financial crises, which caused major recessions, many of which vaporised the value of financial markets, caused banks and firms to go bankrupt, and even caused major depressions. Each meltdown reveals new warnings, such as the danger of uncontrolled exuberance in inflating bubbles and the importance of timely, measured, and credible government intervention when they burst.

From the slow actions of the American government that lengthened the Great Depression to the corruption of Japan's Ministry of Finance that killed their rapid growth to the Federal Reserve's praiseworthy management of the 2008 financial crisis – and the European Central Bank's inability to do so in managing its shockwaves – Yueh tells the story of recent economic meltdowns from their earliest roots up, with tangible preventative measures that could have been taken each time.

Yueh's Model of Economic Meltdowns

Yueh believes in three key stages in any meltdown: exuberance, credibility, and aftermath, and these are at the core of her analysis. Exuberance refers to confidence and actions, usually reckless, that follow such blind confidence, inflating a bubble or pushing the economy to the brink of collapse. Credibility involves the trustworthiness and effectiveness of government intervention to avert the crisis, which then dictates the aftermath. Below are a few examples of this model in action during some of the ten crashes outlined in the book:

The Great Depression, or the Great Crash of 1929, was the greatest economic meltdown in global history, with American unemployment skyrocketing to 25% and the Dow Jones Industrial Average – or the Dow – crashing, not returning to its pre-crash high until November 1954, more than two decades later. The euphoric post-war Roaring Twenties fuelled the belief that the stock market would always rise, so reckless investment inflated the Dow's value six-fold between 1921 and 1929 as people took out loans to finance their investments. The blue-chip index was heavily overvalued, and on Black Monday, the 28th of October 1929, it fell by 13% and another 12% the next day into a bear market.

The biggest cause of the crash was the debt and the subsequent deleveraging. As the stocks that banks and other lenders held as collateral lost value, they called in their loans, which caused those in debt to sell their assets – known as a fire sale – which further drove down the price of assets. This debt-deflation spiral significantly damaged the US economy during deleveraging.

The Fed's late intervention and early withdrawal prolonged the crises, but newly elected President Franklin Delano Roosevelt – better known as FDR – regained confidence in the government through 'fireside chats' broadcast by radio, which boosted credibility when backed by sound legislation and the guarantee that new banks would be safe to store money in.

With Japan's Real-Estate Crash of the 1990s, we see patterns that are all too similar. The historic Plaza and Louvre accords between the G7 and the US to weaken the dollar led to significant interest rate cuts in Japan from the Bank of Japan – or the BoJ – which was one of the least independent central banks for a developed economy at the time. This fueled the already high growth that Japan underwent following the Second World War, and a property bubble inflated, to the extent that Japan's total land value was four times that of the United States – even though the US is twenty-five times bigger than Japan – in tandem with euphoria in Japan's Nikkei index, which grew four-fold in six years. When the bubble burst and the Nikkei halved in less than a year, the debt-deflation cycle took control and brought Japan's economy to its knees. Japan's Ministry of Finance, which was too slow to act, came out badly, given its responsibility in restricting the BoJ's independence and keeping interest rates high in accordance with the Plaza and Louvre accords.

This idea maintains its prevalence in very recent crashes, too. The dotcom bubble burst in 2001because it was inflated, since people were overly confident with the emerging tech companies of the time. The overvalued NASDAQ was corrected as it fell 78%. This crash coined the term 'irrational exuberance 'because tech firms were able to raise millions of dollars without ever turning a profit. VCs and investors fuelled a bubble of inexperienced tech firms' stocks, and it came crashing down. Timely action by the Fed, however, prevented the crash from becoming too prolonged since they had been monitoring the dotcoms.

Then, of course, there is the infamous Financial Crisis of 2008. Yet again, exuberance in the property market led to irrational borrowing to finance mortgages, whose cost of borrowing was low due to these curitisation of mortgages by US state agencies Fannie Mae and Freddie Mac. This led to reckless lending by big banks deemed 'too big to fail' who began risky bets on subprime mortgages, which are high-interest mortgages with a high risk of default. When too many such mortgages had been taken out with confidence in an ever-rising property market, a widespread default caused the 2008 crisis. President George W. Bush's Troubled Asset Relief Program – abbreviated to TARP – which was later passed to President Barack Obama, managed to keep some of these big banks, which were deeply entangled in the US economy, afloat.

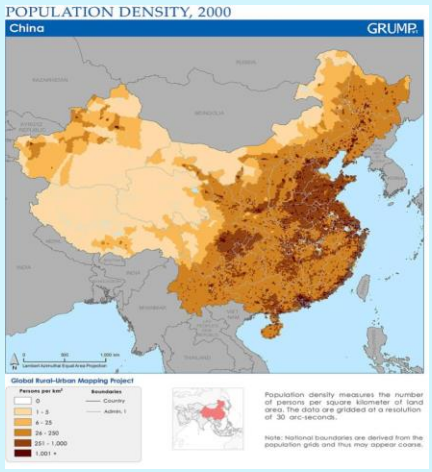
The investment bank Lehman Brothers stands out, however, as the fourth-largest bank in the US went bankrupt during the crisis. The US's decision not to bail out Lehman has been long questioned since the fear that its bankruptcy sparked led to a credit crunch and freeze-up in liquidity in the economy. Overall, however, Yueh praises the Fed's timely response in preventing the crisis from becoming a major depression, though it was catastrophic, nonetheless.

From this limited set of crashes, it seems like the same pattern that Yueh introduces is behind these crashes, where euphoric, leveraged economies are crushed by debt and deflation. Armed with this knowledge, what does the future of the global economy have in store?

Yueh's Prediction of 2023

As Yueh says at the opening of her book, "There is very little that is certain in economics, but there will always be another financial crisis." She predicts China to be the epicentre of the next great crash. Yueh sees yet another highly leveraged bubble inflating the world's second largest economy: its property sector.

As China moved from a pure, planned economy, in which state-owned firms allocated worker housing, to where the housing market was privatised and state-allocated homeowners could buy their own homes at favourable conditions, the real estate prices began to rise. At the same time, the opening of China's borders to the world led to a mass migration towards certain cities for factory employment, leading to overinflated house prices in some areas and ghost cities in others.



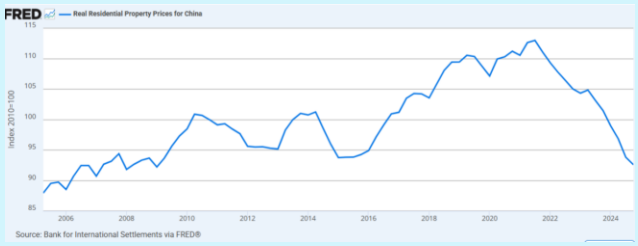
As a result, developers borrowed heavily for projects and bought state-owned land from the transitioning government. Some of this borrowing is also through China's rampant shadow-banking sector of unlicensed loan sharks that are now too entangled in the Chinese economy. When this book was written, highly leveraged Chinese property developers had an outstanding debt of $5.24 trillion, a third of the Chinese economy in 2023. Its second-largest property developer, Evergrande had outstanding debts of $305 billion. Most of the debt is held domestically, so a crash would drag down the banks, but foreign creditors are also seeing key defaults in bond payments, catalysing the crisis.

To Yueh, these are telling signs of a great crash in China, which, holding an 18% share in the global economy, second only to the United States, may drag the global economy down with it. A crash in the world's workshop could hurt those that sell raw materials to it, buy its goods, and work its factories alike. China's Belt and Road Initiative would also leave developing economies seeking loans on their own with projects left unfinished if the giant pulls back, further echoing the message that its problems really are the world's problems.

China Today

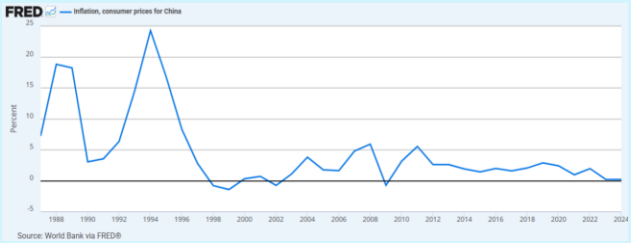
Armed with the lessons of the Great Crashes, today's global economy paints the picture of many looming crashes in precarious balance.

Since 2023, more telling signs have emerged of a shaky balance in China. The property bubble began to burst, and the real estate sector has lost 20-30% of its value since the market peaked in the summer of 2021. Developers have been going bankrupt, causing the economy to stagnate (Economics Observatory, 2025). Major bankruptcies of firms like Evergrande are freezing up liquidity in China as banks, lenders, and shadow banks are dragged under, further slowing the economy and mirroring the 2008 financial crisis, except with fewer credible tools to rein in the aftermath.



Furthermore, as Yueh correctly identified, the Chinese government crackdown on property developers did trigger the deflation. The 'Three Red Lines' regulation on property developers' finances and debt did help trigger major defaults and bankruptcies from firms like Evergrande. It will remain to be seen if this fragile deflation culminates in a full-blown crash.

Increased trade tensions have also started to hit exporting industries, with the largest drop in export orders since the pandemic, whilst consumer spending is down to 40%, south of most advanced economies and China's middle-income peers alike, due to a variety of factors such as low wages, cultural emphasis on saving, an ageing population, poor social services, and the savings needed for expensive housing (Economics Observatory, 2025). Demand deficiency is not helping the slowing growth rates in the nation, and China is starting to see the first signs of a debt-deflation spiral (Bao, 2025).



Yueh also briefly mentions the local governmental debt in China, but new evidence that recently surfaced suggests that this could be a much bigger issue. As a transitioning economy, the 1994 tax reforms in China set into motion a precarious fiscal framework that led to a perennial tug-of-war for revenue between Beijing and local governments. Whilst the local governments bore the brunt of stimulating growth, Beijing received most of the tax revenue. This left local governments relying on selling the state-owned land to exuberant developers and borrowing against future land sales for revenue (Ronkin, 2025).

With major stimulus cheques when demand dried up during the 2009 Great Recession and when the even worse economic consequences of the COVID-19 pandemic hit China, government debt soared. Despite the official debt at a high but manageable 77% of GDP, there could be an additional $8-10 trillion dollars of unofficial local government debt, with looming defaults evident with recent withholding of public salaries (Ronkin, 2025; Miao, 2024). The defaults come as the property markets dry and land sales fall. The tax revenue also fell 1.1% due to low consumption, despite a 5% growth target in the economy, and U.S. President Donald Trump's tariffs could not come at a worse time to threaten the disruption of the already delicate system (Norges Bank Investment Management, 2025).

So, in conclusion, Yueh's model seems to have predicted the current slowing of the Chinese economy. The property bubble has begun to deflate, with developers going out of business and these economic contractions piling on the shaky fiscal frameworks that Chinese infrastructure investment and growth-boosting vehicles rely on, just as the rest of the world seeks to diversify from China, and its own population is spending less and less.

The Global Economy Today – The Next Crash Looming?

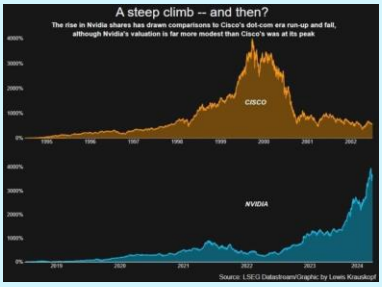
When it comes to trade and debt, however, there is one scare bigger than a failure in the world's second-biggest economy: a failure in the world's biggest economy and global hegemony, whose currency underpins the modern financial system. In other words, a crash in the United States of America and the global reserve currency, the US dollar. Whilst the American economy in 2023 showed few cracks, 2025 paints a different picture. The American economic landscape is not so shaky that it can be definitively seen as the site of the next great crash, but telling signs of Yueh's crash model are emerging.

This comes down to a few key issues: overvaluation of the US and its firms, the growing national debt, and falling confidence in the federal government and American exceptionalism.

Firstly, overvalued American firms. In The Great Crashes, Yueh does compare today's tech firms' dominance in the markets to the markets of 2001. The top six tech companies, by market capitalisation, make up a third of the S&P 500 (Companiesmarketcap, 2025), just 2% less than the 35% of the index accounted for by tech firms in 2001 (Yueh, 2024). These American giants make up more than half of the more tech-heavy NASDAQ (Companiesmarketcap, 2025), some of which have propelled the US state of California, which holds Silicon Valley, to be a bigger economy than all but three countries (Marysolvaldez, 2025).

Yueh believes that this may be an overvalued sector, citing highly valued Silicon Valley tech startups which have never turned over a profit but have the backing of bullish VCs. This worrying phenomenon has only been worsened by AI. Whilst many see AI as a technology worth its valuation, others see a coming AI bubble that mimics the exuberance and aftermath of the 2001 dotcom crisis (Yueh, 2023).

On the other side of the argument, the six tech giants all fall in the top ten for annual earnings (Companiesmarketcap, 2025) and are indeed turning over a profit, and firms like X, Google, and OpenAI still sees excess demand for their AI products as they construct new data centres (Kearney & Dareen, 2025). American firms in general make up eight of the ten highest-earning firms (Companiesmarketcap, 2025), so it remains to be seen if the American tech industry and American firms in general are overvalued products of reckless exuberance or if the Silicon Valley VCs are really backing the “next big thing”.



The next concern is the monumental American national debt. Exuberance and leverage seem to be the twin engines of major crashes since debt drags down the rest of society, not just the reckless and euphoric, as their defaults will drown banks and vaporise savings. On either side of the American political spectrum, however, little is being done to address the threat of a default at the federal level, since fixing it would mean higher taxes or less spending, which is a risky bet for any politician seeking re-election, despite allowing it threatening a shake-up of the global financial system, rooted in the US dollar and US treasuries, that could dwarf any crash we have seen before.

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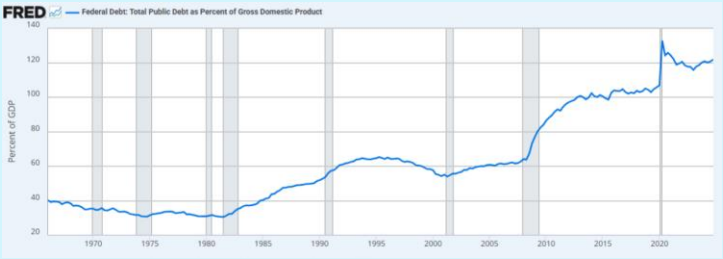
Currently, the debt stands at an eye-watering $36.2 trillion (U.S. Treasury, 2025), or, more importantly, 124%of GDP (CEICData, 2025). The recent “One Big Beautiful Bill Act” by the Republican trifecta threatens to add$3.8 trillion to the debt via tax cuts, whilst only reducing spending – mainly through cuts to welfare such as Medicaid and food stamps – by $1.6 trillion over the next decade, though its defenders argue that GDP will rise disproportionately from the tax cuts. Hope still stands that the slim Republican margin – which helped make changes during its passage through the House of Representatives – and filibuster laws in the US Senate will give fiscal hawks a chance to advocate for more sensible spending (City Journal, 2025; Ea, 2025).



Recent fiscal irresponsibility, perhaps from the sustained belief that American growth will outweigh debt, means that over half of the debt since 1776 has been added in just the last 10 years (Federal Reserve, 2025),leading credit rating agencies such as Moody's to downgrade US credit ratings, though some believe this is simply a stunt since all US debt is in dollars, which the US can print at will, perennially avoiding default –albeit at the cost of inflation – making the chance of an actual default effectively nil (City Journal, 2025; YahooFinance, 2025).

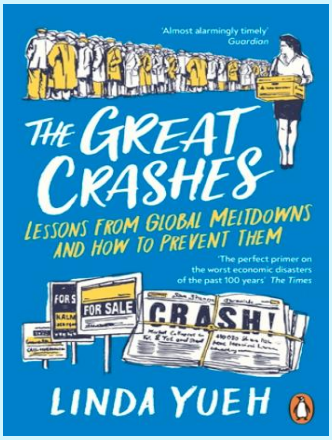
The final concern is the end of American exceptionalism. The concept, built on growth, liquidity, and the rule of law, is seen by some as questionable. If the tech sector fails to deliver growth, US treasuries and dollars lose their liquidity, and the new administration violates the rule of law and employs an isolationist zeitgeist, confidence in America will plummet. We see this on a small scale with the 10% decline in the value of the dollar since President Donald Trump's inauguration, with economists split on whether this is the administration's plan, a side effect of de-dollarisation, a drop in confidence, and/or a correction of overvaluation (CNBC Television, 2025; MarketWatch U.S. DXY, 2025). With a third of capital flows going into the global superpower since COVID (Curran & Mohsin, 2025), one can only imagine the shockwaves through the global economy and the possibility of an excruciating depression as a result of a crash.

The hope will be that these pillars stand and that it is genuine growth that fuels the flow of money, be that from VCs, the indebted federal government, or foreign investors. But with the two biggest economies on shaky ground, hope is all we have.

Conclusion

The Great Crashes provides a deep insight into the last ten significant crashes in human history, from their roots up, and equips us with the tools to identify shaky economic conditions through Yueh's model of past crashes. Not only has her prediction on the Chinese real estate sector begun to take shape, with even more telling signs, but her tools allow us to apply these principles to today's economy and identify cracks that the world is just picking up on.

I would strongly recommend this book. Thank you for reading.



Year 10 Pespi-Cola Trip

On the 12th and 19th of June 2025, 112 Year 10 Economics students took part in an educational visit to the Dubai Refreshments Company's Pepsi-Cola bottling plant in Dubai. The trip provided a unique opportunity to see economic theory brought to life in an industrial setting, tying in perfectly with their IGCSE studies on production, costs, and supply chains.

During the visit, students were given a guided tour of the facility, observing the full production process - from the intake of raw materials and high-speed automated bottling to the warehousing systems and final distribution stages. The scale and efficiency of operations left a strong impression, with many students noting how economies of scale and just-in-time methods were applied in practice. Sustainability was also a key theme, with students witnessing the plant's innovative approaches to water recycling and the use of lightweight, recyclable PET bottles.

Rather than summarise the experience further, we leave it to the students themselves to share their highlights - in their own words. From surprising facts and favourite parts of the tour to reflections on how the visit has shaped their understanding of economics, their insights speak volumes.

As a year group we visited the Dubai Refreshment Company facility, and it was an enriching experience. We learnt a variety of skills whilst also learning the exact process of how refreshments are made: from the bottling to labelling to filling. It was a trip that taught us how to apply economic concepts in real life and see them unfold in a factory setting. For example, we got to see economies of scale in action because the factory operates a large, automated bottling plant, allowing mass production and decreasing average costs. They partake in purchasing Eos and we learnt they bulk buy their raw materials and reduce average cost. Also, we got to see a capital-intensive firm because the facility has lots of machines that use division of labour and specialisation, as they have different lines of production for different tasks, like bottling, then labelling, then different lines for different sized cans and bottles. The highlight of the trip was the fact we were able to be involved in seeing each step in the production process and see many different types of productions.
- Katyani Bhargava

Visiting the Dubai Refreshment Company provided a valuable insight into real-life, large-scale production of popular drinks such as Pepsi, Miranda, Mountain Dew, Aquafina, 7UP, and Lipton. Personally, it was incredibly interesting to see how economics applies in practice. For example, the DRC had the capacity to have 10 production lines, although only 5 were operational. In addition to that, the guide mentioned that the production lines had a capacity of producing 90,000 bottles per hour but only produced 70,000 bottles per hour. It was particularly fascinating to see how both of these situations highlighted the economic concept of spare capacity. Not only that, but we were also able to see how capital-intensive the production was, with robots and technology producing each drink with incredible accuracy and speed, which displayed technical economies of scale. However, it was also great to see some human labour used in the process of thorough quality control and logistics of packaged drinks. It was fascinating to see how DRC purchased sugar in large amounts, which showed bulk buying, a form of purchasing economies of scale. This was a great experience since we had a first-hand view of the production process of our favourite drinks. It truly was a memorable experience.
- Vihaan Desai

Our economics trip to the Dubai Refreshment Company gave us a practical look at how a large-scale business operates. The company showed us how economic concepts like supply chains and economies of scale work in real life. We toured the factory, watching automated lines fill and seal cans and bottles for drinks such as Pepsi and 7 Up with impressive speed, being able to produce up to 2.8 million boxes of drinks per day. It was so interesting to see all of the complex machinery employed and also to be able to implement all of the concepts that we have studied into real-life economics and usefulness to help us understand how they work by using a visual and interactive example. Overall, this trip was very enjoyable and an amazing experience.
-Paula Amendola

One of the highlights of our visit to the Dubai Refreshment Company was witnessing the fully automated production process of going from basic materials into finished products through a series of coordinated processes. It was impressive to see the scale of production, with the facility capable of making up to 90,000 an hour, and the efficiency of each part of the production line, from making the bottles to filling them and labelling. Every part was efficient and synchronised, ensuring quality control at every stage and that they worked at their best capacity. I was particularly impressed by the use of advanced machines and the sheer scale of the operation, giving me greater appreciation for how much technology and capital is involved in large-scale production to ensure productivity.
-Aureane Collias Narayan

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囲碁将棋
BODY SPA.
4F
カラオケ
BIG ECH
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カラオケ
BIG ECHO
4F
姉キャバ
日本橋店
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消火栓
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