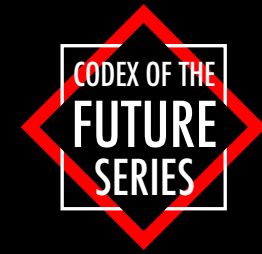


311 INSTITUTE

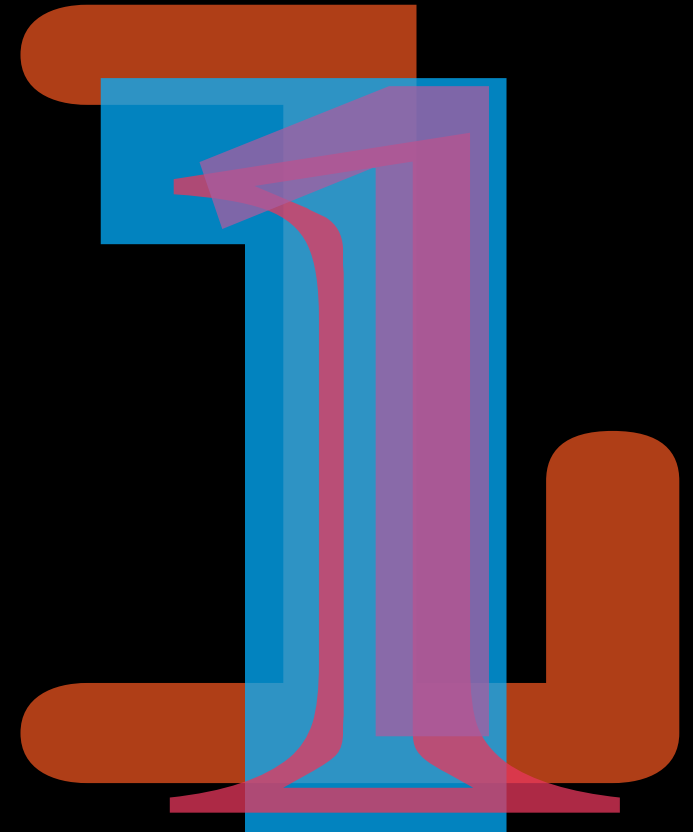
ANNUAL TRENDS CODEX

3RD ANNUAL EDITION . BOOKLET 1 OF 7



ECONOMIC TRENDS

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of business, culture, and society.



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ECONOMIC TRENDS

ENVIRONMENTAL TRENDS

POLITICAL TRENDS

SOCIETAL TRENDS

TECHNOLOGICAL TRENDS

UNIVERSAL TRENDS

BUSINESS MODELS

MARKETING

SUSTAINABILITY

CONSUMER BEHAVIOURS

OPERATING MODEL

WORKFORCE

CUSTOMER EXPERIENCE

R&D

WORKPLACE

HR AND TRAINING

SECURITY

ICT

SUPPLY CHAIN

SECTOR TRENDS

AEROSPACE

EDUCATION

INSURANCE

SPORTS

AGRICULTURE

ENERGY

LOGISTICS

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BE BOLD . EXPLORE .
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311 ANNUAL TRENDS CODEX



ABOUT THE AUTHOR

Matthew Griffin, multi-award winning geopolitical advisor, leadership coach, and Futurist, and 15 times author of the smash Codex of the Future series, is described by his clients as a "Walking encyclopedia of the future" and a "Futurist polymath." Matthew is the Founder and Futurist in Chief of the 311 Institute, a global Futures and Deep Futures advisory looking up to 50 years out, as well as the World Futures Forum and XPotential University - two philanthropic organisations whose mission it is to solve global inequality and the world's greatest challenges.

Regularly featured in the global media including the AP, BBC, Bloomberg, CNBC, Discovery, Forbes, Khaleej Times, RT, the Telegraph, ViacomCBS, WIRED, and the WSJ, Matthew's ability to identify, track, and explain the impacts of hundreds of exponential emerging technologies and trends on global business, culture, and society is unparalleled.

Recognised as one of the world's most renowned futurists, disruption, foresight, and strategy experts Matthew is an international advisor and keynote speaker who helps the world's most respected brands, governments, investors, NGO's, and royal households, explore, envision, and shape our collective future.

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PROUDLY BUILDING THE FUTURE WITH ... & MANY OTHERS

ABB

accenture

AXA

BCG

Disney

DP WORLD

NOKIA

NOVARTIS

sky

standard
chartered



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...	Solopreneurs
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...	Unlocking Public Wealth
...	Wealth Inequality



WELCOME FROM THE AUTHOR

PEOPLE . PLANET . PURPOSE . PROSPERITY

THE SKELETON COAST . NAMIBIA . 19.9873° S, 13.2605° E

I chose this striking image to represent this section because in many ways it's representative of many of today's realities: The Skeleton Coast is complex and unpredictable, but home to an amazingly adaptable ecosystem, yet it's also representative of the stark contrast between the have and have nots, those with water and other resources and those without, our increasingly polarised society, and even the contrast between our habitable blue planet and the desolation of space. The desert and the sea are also relentless, just like the human spirit, and given the right conditions they can overcome everything in their path, just as humanity can when we work together for the benefit of everyone to create a brighter future for all of us.

THE 311 Institute Annual Trends and Foresight

THE 311 Institute Annual Trends and Foresight **Codex** contains explicit details about hundreds of trends that affect everything you care about - whether that's you, your business, your industry, your country, our planet, or all the above. Designed to be a one stop shop for everything that's trending it also contains everything you need to run your very own strategic foresight programs, model scenarios, and develop actionable initiatives and strategies to help you rule the future like a Boss.

Furthermore, as the main trends Codex grows exponentially larger I've split each trend category into separate **Minibooks**, like this one, to make it even easier for you zero in and focus on the trends that matter to you.

Most trends are like tides - relentless forces that are hard to control or influence. And, just like tides they can impact a great many things - both directly and indirectly. Having written Codexes that cover the latest emerging technologies and the latest disruptive business thinking, innovation, and strategy, I felt that creating the trends Codex was a natural next step to compliment them, and ergo provide you with a valuable expert set of resources that contain everything you need to design, debate, create, and shape your own future.

This Codex, like all my others, is a living book, it's always being updated with the latest trends and information so that you always have access to the

latest insights and research, but perhaps its biggest benefit is that you can see every trend for everything in one place. This is important because since everything in our world is connected, as I've shared many times during my keynotes, this convenience allows you to easily stay abreast of changes in individual regions or sectors, technologies or trends - any one of which could impact the things you care about, even if the changes occur in areas that at first you don't think are relevant to you.

A simple but powerful example of this are the changes we see in the Energy sector where new energy generation and distribution technologies and trends are impacting everything from the business models and product development in the Transport sector, corporate ESG initiatives and Government policy making, climate change and other environmental trends, as well as the multi-trillion dollar investment portfolios of the global Financial Services sector - and far beyond.

No other trends book puts so many trends across so many categories, lines of business, and sectors in one place, or makes them so accessible, and that you might say is this book's USP. That is, of course, if tens of thousands of insights and stats aren't enough already!

Explore More,

Matthew Griffin
Founder and Futurist in Chief



USING THIS MINIBOOK



WITH THE main 311 Institute trends Codex getting so large that it needs its own suitcase to be transported I took the decision to split out each of the major trend categories into their own dedicated minibooks. However, just as with the main Codex these minibooks are designed to be as easy to use as possible, and in this section you can find out how to use the trends sheets and get the most from them.

Furthermore, as I continue to discover more trends I'll ensure that all the minibooks in the series are kept in sync with the main Codex so you always have access to the very latest information, no matter which of my books you're diving into.



CLIMATE CHANGE

3RD YEAR ON THE LIST



QUICK TAKE

Scientists saw it coming in the 1950's. They called it out and made films about it in the 1980's. And now, over forty years later individuals, governments, and organisations are starting to take unilateral global action to tackle Climate Change with many scientist arguing that we are now too late to avoid a "life altering" 1.5C increase in average global temperatures, and that we are within years of crossing a climate tipping point which will see its devastating global effects accelerate and create a run away cascade of **Extreme Weather** and devastation.

Data sources: IPCC, National Geographic, WWF, and various.

IMPACT

The impact of Climate Change can be seen everywhere - from the changes of the seasons, and the subtle changes in the flora and fauna in peoples gardens, to the tree covered mountain slopes that used to be buried by glaciers and snow, to the expanding deserts of the Sahara, and the deep of the oceans. It impacts every living thing and every natural system on Earth.

From longer frost free growing seasons, to changes in global rain patterns, longer droughts and more intense heat waves, and more extreme weather, to more powerful hurricanes and higher sea levels, the consequences are as varied as they are acute.

If the world warms by 1.5C then the Arctic Ocean will become ice free once every 100 years, with extreme hot days in the mid-latitudes being at least 3C hotter than pre-industrial levels, and sea levels could rise by up to 0.77m, with a further decrease in global bio-diversity of between 5% and 8%. Meanwhile corals could decline by at least 70% with marine fisheries annual productivity declining by at least 1.5 Million tons. And a 2C rise would be exponentially worse for people and planet.

EXAMPLES

Earth is mission critical for humanity and all life on Earth. And as the rate of Climate Change accelerates we continue to see a variety of records being set and smashed with climactic events that used to be once in a century becoming once a decade, and then the norm. And examples of these are plentiful.

Greenland's ice sheet, the world's second largest after Antarctica, is now melting 12 times faster than in the past 12,000 years and losing over 532 Billion tons of ice a year - and that rate is accelerating. Not only does this melt account for almost 25% of today's sea level rise, but in 2021 the melt rate accelerated even further when, during a time when temperatures in the region were already 18C higher than average, three days worth of rain - where the rain itself was a first for the region - dumped over 7 Billion tons of rain water onto the ice sheet.

And, from the world's biggest, deadliest, and most damaging floods, to the world's biggest, deadliest, and most damaging droughts, heatwaves, hurricanes, and wildfires almost every country on the planet is now feeling the damaging impacts of climate change.

ACT NOW

As we see elsewhere in our universe, from the dust dunes of Mars to the acidic oceans of Venus, our planet will always be able to adapt to new climactic conditions. But life on Earth will find it increasingly difficult as Climate Change accelerates and its effects become more extreme and pronounced. Therefore, ironically, tackling this trend is more about saving humanity's future than the planets.

EXPLORE: 12

- Carbon Capture and Storage
- Emerging technologies and technology roadmaps
- Future of Agriculture, Energy, Government, Manufacturing, Sustainability, Transportation, and Work
- Net Zero Pledges
- Unilateral global accords and coordinated global action

USING THE TREND SHEETS

IN THIS codex we've gone to great lengths to document the major trends affecting all sectors and line of business operations and simplify them for you. Furthermore, we're always surfacing more trends which is why this codex is regularly updated. As a result each trend contains all manner of action points, details, insights, and stats that you can use to your advantage, whether it's developing scenarios and strategies using the frameworks in this and our **other codexes**, or whether it's just exploring the art of the possible. This is the key to the sheets:

1 / UNITED NATIONS SDG NUMBER

The UN SDG most impacted if you act on the trend.

2 / TREND NAME

The most appropriate name for the trend.

3 / YEARS IN THE CODEX

How many years the trend has been listed in our codex since the first edition.

4 / TREND LONGEVITY

● LONG ● MEDIUM ● SHORT

The trends longevity and how long it is expected to have an impact for.

5 / TREND PRIORITY

The higher the number the more attention and weight you should give the trend.

6 / TREND MOMENTUM

⤴ ASCENDING ⤵ FLAT ⤶ DESCENDING

The overall momentum of the trend.

7 / TIMING OF THE TREND

● HERE NOW ● EMERGING ● DISTANT

When the trend is expected to have a measurable and pronounced impact.

8 / RELATED TRENDS

Other trends that either impact the trend or are impacted by it.

9 / DATA SOURCES

A list of our data sources for the trend.

10 / IMAGE

An image to portray the trend.

11 / ACTION

The action we suggest organisations take now based on the available data.

12 / EXPLORE

Other things you can or should explore to better understand the trend and how to solve or use it to your advantage.

13 / DISCOVER MORE

Click or scan the QR codes to access more resources or arrange an expert call with us.

SUMMARY UPDATE

IN 2022 the global economy started recovering from the COVID-19 pandemic, and we saw notable shifts towards digitisation and sustainability. Despite challenges though, which included supply chain snarl ups, high levels of inflation, and war in Ukraine, the economy showed resilience with a global growth rate of around 3.2%. However, the rate of global recovery varied wildly with developed nations bouncing back faster due to quicker vaccine rollouts and significant fiscal stimuli than developing nations.

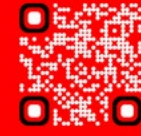
Spurred by the pandemic the year was also a breakout year for digital transformation with the adoption of technologies including Artificial Intelligence and Blockchain grabbing many headlines - a shift that also highlighted the continued need for robust digital infrastructure and cyber security solutions.

The energy sector also continued its transition to renewable energy with increased government funding and prevailing policy tailwinds. This, in turn, coupled with high fossil fuel prices helped stimulate electric vehicle demand and the electrification of energy intensive industries. 2022 also saw Environmental, Social, and Governance (ESG) factors become a critical yardstick for investors, further encouraging companies to embrace sustainable business practices and green financing.

Then, on the geopolitical scene, there were many developments that influenced the global economic outlook. Turbulent US-China relations and post-Brexit Europe affected trade dynamics, as well as the technological landscape, while at the same time central banks tried to balance their regions economic recovery with the difficulty of quashing rampant inflation. Cryptocurrencies also continued to dominate discussions, raising further questions about their regulation and future role in finance.

In summary, the year marked a transformative phase in the development of the future global economy with digitisation, the energy transition, strategic dislocation, and sustainability, to name but a few themes all priorities.

BOOK AN



EXPERT
CALL

STATS THAT MATTER

3.0%

GLOBAL GDP
GROWTH, 2023

OECD

TRACKER
2022 3.2%

5.9%

GLOBAL INFLATION
RATE, 2023

IMF

TRACKER
2022 8.8%

84%

G25 % OF TOTAL
GLOBAL GDP, 2023

WORLD BANK

TRACKER
2022 84%

50%

G5 % OF TOTAL
GLOBAL GDP, 2023

WORLD BANK

TRACKER
2022 51%

\$105.4 TRILLION

TOTAL GLOBAL GDP, 2023

IMF

TRACKER
2022 \$101.6 Tr

25%

USA GDP AS % OF
GLOBAL GDP, 2023

WORLD BANK

TRACKER
2022 25%

\$26 TR

USA TOTAL
GDP, 2023

WORLD BANK

TRACKER
2022 \$25 Tr

\$2

AVERAGE DAILY WAGE
FOR 719M PEOPLE, 2023

WORLD BANK

TRACKER
2022 \$2.15

210 MILLION

NUMBER OF PEOPLE UNEMPLOYED, GLOBAL TOTAL 2023

ILO

TRACKER
2022 214M

\$32 TR

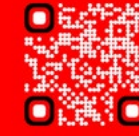
TOTAL GLOBAL
TRADE, 2023

UNCTAD

TRACKER
2022 \$32 Tr



ECONOMIC



CEO PAY GAPS

3RD YEAR ON THE LIST



QUICK TAKE

Over the past decade this trend has been subject to greater scrutiny and attention, driven in part by the fact that many regular workers around the world have seen their own wage growth failing to keep up with **Global Inflation**, and as a result seen their wages in real terms falling. While some argue this trend is a storm in a tea cup some stats are staggering. From 1978 to 2020, for example, CEO pay grew 1,322% compared to just 18% for the average worker - a figure that also dwarfs the 817% S&P market growth rate against which many CEO's remuneration packages are measured.

IMPACT

While there are many impacts of this trend, including increased **Shareholder Activism**, many see this trend as a primary driver of **Wealth Inequality** even though that specific trend is driven by a great variety of other trends as well. Perhaps this trend's greatest impact though is its apparent flagrant assault on what people regard as "fair," which then in turn helps fuel the "Them versus Us" debate and contributes to our **Polarised Society** and societal discord.

While CEO pay is almost always linked to value creation and the performance of the organisations they oversee, with a high percentage of remuneration packages linked to share price, among other factors, it's fair to say that today this trend is a literal lightning rod for many stakeholders - a fact that isn't helped when CEO's, as we've seen many times recently, are rewarded for failure which of all the cardinal sins is seen as the main one. And, with the ratio of CEO pay to median worker pay in higher paying companies sitting at 351-1, and that ratio being almost double at 670-1 for low paying companies, it's easy to see why this trend drives so much discussion.

EXAMPLES

It's would be relatively easy to argue that the impact of this trend are driven by a lack of transparency around CEO remuneration packages and by what many see as an imbalance in those packages, which is why experts say we shouldn't pay attention to the value of the CEO's package but rather to what they're paid for and how they're paid. Then, of course, there's still the matter of fair - even for CEO's. After all why shouldn't Jeff Bezos, who took the personal risk to found a company that now employs almost one million people not be paid, or rewarded, well?

Whatever your opinion though we're all more likely to oppose packages that promote bad CEO behaviours, such as share heavy remuneration packages that could see them embrace **Job Automation** as a primary strategy, rather than those linked to more beneficial initiatives such as **CSR, D&I, ESG, Ethical Capitalism**, job growth, human capital development, and others. Ironically though today's median CEO salaries are still just below those in 1934, or \$882,000 in current value. And, for every \$1,000 change in the market value of a company the median CEO remuneration is just 6.7 cents.

ACT NOW

As they say remuneration drives behaviour and so boards, owners, and the shareholders of organisations should be careful how they incentivise their top executives, not just their CEO's. Incentivised correctly CEO's can create organisations that capture people's imaginations, change the world for the better, and inspire people's support, but done incorrectly the opposite can happen.

EXPLORE:

- Best practises and case studies
- Board diversity
- Business and impact assessments
- Ethical Capitalism
- Future of Work
- GRC, policy, and regulation reform
- New business and operating models
- Remuneration reform



CENTRAL BANK DIGITAL CURRENCIES

3RD YEAR ON THE LIST



QUICK TAKE

The emergence of Blockchain and Bitcoin heralded in a new era of decentralised cryptocurrencies which existed outside of state control and with limited to no oversight. As the number of private cryptocurrencies increases countries increasingly see them as a threat to their sovereignty and their own central bank currencies, which is why some countries ban or temper their use. But, given the inevitability of the crypto trend, and its advantages, several countries are now developing and trialling CBDC's with the eventual aim of rolling them out.

IMPACT

The impact of CBDC's would be wide ranging they would have a significant impact on the formulation and implementation of monetary policies.

On the one hand state issued and controlled CBDC's would enable faster, less costly, and more secure financial transactions that, in addition, could improve financial inclusion because citizens would no longer need to have their own bank accounts to hold such currencies. On the other hand, however, there are concerns about the high level of control that states would be able to wield over the blockchain network they base their CBDC on.

From a state perspective though the allure of CBDC's is significant because in addition to the above the elimination of cash would help states reduce the costs and risks associated with cash, as well as fraud and tax evasion. Furthermore, the real time nature of CBDC's would also give states unprecedented real time insights into their citizens spending habits at a granular level and allow them, for the first time, to analyse their economies in real time and apply real time, innovative, financial policies accordingly.

EXAMPLES

A CBDC is defined as any electronic, fiat, liability of a central bank that can be used to settle payments as a store of value, and generally they will be universally accessible, interest bearing, exchangeable for bank notes and central bank reserves on a one for one basis, linked to real world identities and not tokens, and withdrawable from your bank accounts via a digital wallet.

As the use of cash in many countries dwindles and is superseded by contactless card payments it is inevitable that governments will adopt the CBDC model with many countries already trialling them or planning trials.

One of the most progressive countries in the field is China who has already run significant trials of the technology as they see CBDC's as both a means to increase the state's level of control and surveillance, but also see the benefits of being able to use it to analyse and course correct their economy, at both a national, regional, and local level, quickly and efficiently. And, increasingly, where China leads others follow so it's not surprising that many countries are now experimenting with their own CBDC's.

ACT NOW

CBDC's would represent a titanic shift in government monetary policy and would have wide ranging global implications for both citizens and industries alike. They also signal the start of a new financial era which would see cash, as many people are saying, bought into the 21st Century.

EXPLORE:

- Banking and credit access for the financially excluded
- Disintermediation of traditional financial services organisations
- Future of Financial Services
- Real time government monetary policies
- Retail and Wholesale CBDC solutions



CONNECTOR ECONOMIES

3RD YEAR ON THE LIST



QUICK TAKE

As we head into a **Bi-Polar and Multi-Polar World** where **Geopolitical Fragmentation** and the relationships between different economic blocs and countries, such as **BRICS 2.0**, become increasingly complex and strained there are inevitably going to be those governments that choose one side over the other - and then there are going to be those who don't appear to choose sides at all and who instead seemingly try to cosy up to everyone. These are the Connector Economies, and not only are they growing in number but they're also assuming a greater geopolitical and economic role within the world.

IMPACT

Connector Economies increasingly act as gateways between different economically, ideologically, societally, and technologically aligned trading blocs or countries. And while some of them are inevitably trying to benefit from this trend by "playing the field," others such as India might use it as part of a long term strategy to put themselves in a prime position to challenge China and the US in the end for global dominance.

An attractive target for Foreign Direct Investment (FDI) because of their favourable investment environments and strategic locations these economies can provide companies with convenient access to multiple markets, facilitate **Global Trade Flows, Global Value Chains**, and reduce **Trade War** barriers, as well as help improve the resilience of supply chains while mitigating geopolitical risks. The downsides, however, include cultural and operational differences, the immaturity of their infrastructure and own supply chain ecosystems, potential over dependence on key partners who might oppose their gateway status, regulatory uncertainty, and high levels of competition for mindshare and space.

EXAMPLES

Around the world there are many examples of this trend in action. Some are obvious, such as the positioning of countries including Indonesia, Mexico, Morocco, Qatar, Saudi Arabia, Singapore, the UAE, and Vietnam. And some are curious such as the positioning of Europe, especially Poland, which has a difficult on off love affair with the likes of China, and India which seems to align with the G7 and G20 as well as China and Russia, despite its tumultuous relationships with both, and the wider **BRICS 2.0** bloc.

As a result in the past year we've seen "West and the Rest" FDI in Indonesia increase by 20% to \$58.8Bn, Mexico by 17% to \$72Bn, Morocco by 14% to \$14.4Bn, Poland by 12% to \$44Bn, and Vietnam by 15% to \$47.4Bn - all of which are significantly above normal baseline trends, even if we account for a pivot to Asia. The biggest projects included a \$5Bn and \$1.2Bn investment in Indonesia by Hyundai and LG, and a Japanese geothermal consortium, we also saw a \$5Bn and \$1Bn Tesla and BYD investment in Mexico, a \$1.7Bn Intel investment in Poland, and a \$1.3Bn and \$1Bn investment in Morocco by OCP, Mitsubishi, and Stellantis.

ACT NOW

Today Connector Economies offer companies and governments alike a useful gateway between increasingly divided economic, ideological, and societal blocs. But how these economies will stand the test of time and how they will adapt and react to a world where we see **Economic Decoupling, Strategic Decoupling, and Technological Decoupling** all accelerating is unclear because whether these countries like it or not in time it seems inevitable that one or more of their larger trading partners will encourage or force them - directly or via **Soft Power Plays** - to either outright pick a side or at least choose a "dominant" partner.

EXPLORE:

- Business and impact assessments
- Geopolitical, investment, and trade dependencies, flows, and risks
- Infrastructure development initiatives
- Regulatory and legal frameworks
- Supply chain strategies



CRYPTO CITIES

3RD YEAR ON THE LIST



QUICK TAKE

Crypto Cities are not what you think - probably. If you're thinking they're cities that prioritise the development of crypto startups and ecosystems then you're off the mark. What they are is much more interesting than that, and they're also potentially much more revolutionary. Crypto cities is the name of a relatively new trend where the cities income, which it can then use to pay for the development and provision of public services, comes from the dividends and profits from **Cryptocurrencies** and crypto mining. It also gives cities and governments alike a clear path to eliminating all the tax on their citizens.

Data sources: CityCoin, IMF, World Bank, and various.

IMPACT

The premise that crypto cities are based on, namely that the city - or government - can fund its entire operations from the dividends and profits they make on cryptocurrencies and crypto mining, and then use those profits to eliminate the need to tax their citizens, is very a bold one that's worth watching very closely.

Today the average tax revenue from social contributions as well as direct and indirect taxes in countries such as France, the UK, and the USA, have been rising steadily since 1980 with the tax revenue as a percentage of GDP for those countries now sitting between 25% and 45%. Furthermore, when we take a global view today tax revenues represent more than 15% of global GDP and that figure has been rising since 2009, and it's likely to continue rising as countries try to pay off the debts they accrued during the global pandemic.

As a consequence of this increasing debt burden today it's not surprising there's growing resentment towards governments and that people all around the world are finding the cost of living increasingly difficult to afford, which then leads to unrest. This trend is therefore potentially transformative.

EXAMPLES

While there are unsurprisingly very few examples of this trend the most notable by far is the MiamiCoin project by the City of Miami who so far have used it to generate revenues equivalent to 25% of the cities annual expenditure, or \$80 Million, which in their case then means they can use this return to reduce the tax burden on their citizens. Furthermore, ultimately the city's ambition is to generate all their income in this way so that they can eliminate all of the taxes on their citizens which would be game changing.

The project works like this: First the citizens of Miami, referred to as "Stackers," mine crypto to create MiamiCoin (MIA) tokens - this is done by forwarding CityCoin Stacks (STX) Protocol tokens into the smart contract in a given Stacks block. The stackers then receive 70% of the mining rewards in the form of Bitcoin (BTC) or STX, and the city of Miami receives the other 30% of the rewards which they then bank in their "Crypto Treasury." The city can then cash these out as US Dollars and spend them in whatever way they see fit whether it's to fund events or infrastructure, or all manner of other things.

ACT NOW

Imagine being able to eliminate all of the taxes on your community or citizens and you'll realise the transformative power of this nascent trend. But while the upsides are remarkable organisations should be careful to do all they can to understand and mitigate any downsides such as market volatility and other unfavourable market conditions which could impact returns.

EXPLORE:

- Best practises and case studies
- Business and impact assessments
- Emerging technologies and technology roadmaps
- Future of Government and Financial Services
- New business and operating models
- Partner ecosystems and solutions
- Policy and regulation reform



DEATH OF SHAREHOLDER PRIMACY

3RD YEAR ON THE LIST



QUICK TAKE

The story of public companies putting short term gains over long term gains, and putting their shareholders interests over those of their stakeholders to boost profits is a common one. Since its origins in Roman law the corporation has been legally bound by public duty and social responsibility, but over the past few decades the Shareholder Primacy rule has given execs the permission to prioritise profits at the expense of other responsibilities - including even greater long term profits. However, after revolts and market failures now more CEO's than ever before are abandoning shareholder primacy as their North Star.

Data sources: Oxford Said, and various.

IMPACT

Today many blame capitalism and the shareholder primacy rule for companies putting profits first, and for treating people and the planet as commodities - with the consequences and unrest that causes. This is why the **CEO Pay Gaps** and **Ethical Capitalism** trends are both prominent today, and why many executives - who've largely been encouraged by their shareholders to put short term profits over long term gains and their **CSR** and **ESG** responsibilities - are increasingly abandoning the shareholder primacy rule with many CEO's telling shareholders to get out of their stock if they don't like it.

However, while this sounds positive there are other reasons for the change in heart. As the **Accelerating Rate of Change** brings more disruption it's abundantly clear to most execs that focusing on the short term at the expense of the long term is short sighted and puts their businesses at a long term disadvantage, with the result being that they often fail to capitalise on big long term market shifts which can cost them billions in lost revenues, market share, and in the case of incumbents sometimes their market position. Which then, ironically, tanks their share prices.

EXAMPLES

One of the first CEO's to tell Wall Street that he was going to prioritise long term growth over short term profits was Amazon's Jeff Bezos. Armed with a seven year plan he firmly told investors not to expect the company to make any profits for seven years because it was building and investing for the future. However, he said, at the end of that period investors would have a company that would print them money. And it did.

Unsurprisingly this strategy didn't go unnoticed either. In 2019 the New York business round table, a collection of the world's most powerful Fortune 250 CEO's led by Jamie Dimon, announced they were abandoning the shareholder primacy rule in the pursuit of building and investing for the future as well. And, every year Larry Fink, CEO of Blackrock with over \$13 Tr AUM, has penned a letter urging his portfolio CEO's to prioritise long term thinking.

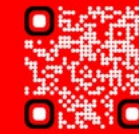
Meanwhile RWE, Europe's largest energy company, has also embraced this trend, spending \$15 Bn to build out future renewable energy generation capacity even though, while they know it will be needed, there is no especially strong business case yet to support it.

ACT NOW

As we see not one but many structural global shifts that affect all industries in all countries it's clear to many that organisations who put their shareholders over their stakeholders and the planet, and who prioritise the short term over the long term will be the losers in the long term. And no board wants to be in that position. As a consequence more executives than ever before are investing more money, resources, and effort in building out their Horizon 2 and 3 innovation capabilities in order to prime themselves for when the new market shifts become the status quo.

EXPLORE:

- Business and impact assessments
- Company culture
- Emerging technologies and technology roadmaps
- Forecasting and scenario planning
- Risk appetite



GLOBALISATION

3RD YEAR ON THE LIST



QUICK TAKE

As our world becomes increasingly connected, especially as we see the roll out of **Satellite Internet** and other technologies, it has never been easier to collaborate with, communicate with, and trade with anyone on the planet. Furthermore the increasing **Power of the Individual** also means that it is easier than ever before for individuals and organisations to benefit from globalisation - provided of course government policies don't restrict it. Today there are three main types of globalisation: Cultural, Economic, and Political, and all of them are generating heated and often polarising discussions.

Data sources: IMF, and various.

IMPACT

As you would expect the impact of globalisation, where systems that let people collaborate, communicate, trade, and travel with relative ease, has its benefits and disadvantages.

However, how you view the trend of globalisation very much depends on your own viewpoint. For example, on the one hand it's now easier for multi-nationals to provide new jobs and skills and boost regional economies, it's easier for people to take holidays in far off lands, and it's easier for governments to collaborate to resolve important issues. But, on the other hand it mostly benefits richer countries, migration is escalating ideological and social tensions, and global development and progress seems unbalanced. And there are many other impacts.

Culturally it is believed that globalisation both benefits societies, by exposing people to different cultures, but can also dilute local culture. Economically it can help level up the world, but also increase economic inequality. And politically it can give politicians a global platform, while also marginalising others. So, as you can see the impacts are as complex as they are diverse.

EXAMPLES

Cultural globalisation can be seen everywhere as global brands and icons, such as Alibaba, Apple, Arm, British Airways, Disney, Dyson, Emirates, Facebook, Huawei, Intel, McDonalds, Samsung, Starbucks, Tesla, Twitter, TikTok, and many others spring up everywhere. And, in some cases these brands are increasingly being used as platforms to control and shape cultural narratives, as well as directly and indirectly promote the ideologies and values of the cultures they represent.

Economic globalisation, which refers to the increasing interdependence of global economies on one another, has also had many impacts, such as helping decrease the cost of manufacturing which, in turn, has helped improve global living standards and choice, but it has also led to mass **International Migration** which has caused numerous political and social rifts.

Meanwhile, politically we see global coordinated action on **Climate Change**, but also looming **Protectionism**, and **Shadow Standards Wars** and **Trade Wars** - especially as we confront a new **Bi-Polar and Multi-Polar World** order.

ACT NOW

While globalisation is overall beneficial for all of us, whether it's because it makes it easier for us to apply for jobs in foreign countries, buy goods, have holidays, expand into new markets, and many other reasons, governments and organisations alike need to be acutely aware of the impact that globalisation has on individuals and how they see and process the negatives.

EXPLORE:

- Business and impact assessments
- Emerging technologies and technology roadmaps
- Future of Government
- Social trends
- Unilateral global accords and coordinated global action



GLOBAL DIRECT TAX RATES

3RD YEAR ON THE LIST



QUICK TAKE

Global direct tax rates, which are generally increasing globally, are levied on companies and individuals based on their income, profits, and or wealth and are generally highest in advanced economies. While the rates vary wildly by country in OECD countries the average share of direct taxes as a percentage of total tax revenue is around 51%, and represents on average 14% of GDP whereas in low income countries this figure is just 5%. And, while these taxes are designed to be progressive the top 1% of earners pay an effective rate of just 7.5% compared to 20.7% for the bottom 50%.

Data sources: CEIC, IMF, OECD, Oxfam, UN, and various.

IMPACT

Direct taxes include Capital Gains Tax (CGT), Corporate and Individual Income tax (CIT and IIT), dividend tax, estate and inheritance tax, payroll tax, property tax, wealth tax, and others. However, while they play an important role within society, helping promote economic incentives, redistribute income, and revenue generation, unlike **Global Indirect Tax Rates** they are often seen as parental - taxes that none of us can choose to partake or not partake in - so it's little surprise that many people see them as a blunt instrument wielded by the governments whose data and opinions might differ from our own.

As an important government revenue stream though, used to support everything from education and healthcare to infrastructure development, pension schemes, and social welfare programs, it's little surprise that trying to get the balance between fairness and the current and future needs of the society right is difficult. Today global direct tax revenues account for approximately 8% of global GDP, or half of all global tax receipts, and the majority of governments use them as a tool to promote economic growth and stability.

EXAMPLES

In OECD countries, where there is good data, on average individuals pay 8.4% of their income in IIT with CIT at 2.8%.

In the USA at the federal level in 2020 direct taxes accounted for 52.4% of all tax receipts with IIT 50% of that, CGT accounting for 10%, CIT 7%, and estate and inheritance tax 0.6%. However, the picture's very different at the state level where property taxes accounted for around 72% of revenue - showing just how dependent local economies are on essentially just one tax type. This is also a pattern that's repeated in other developed countries. In Nigeria though the picture is flipped with the percentage of government income coming from CIT ranging between 40% to 60%, and from IIT 20% to 40%, with the rest coming from other taxes including the Petroleum Profits tax.

Meanwhile, in 2020 in China direct taxes represented 21.2% of all tax revenue, which is low compared to most countries where in Australia this is 64.5%, India 45.6% increasing over time, UK 35.4% reducing over time, France 28.6% increasing over time, Brazil 26.9% increasing over time, and Germany 17.3% increasing over time.

ACT NOW

Developed economies, who have a higher per capita income, broader tax bases, and better tax enforcement, as well as less reliance on cash transactions and almost no **Informal Economy**, often generate more of their tax revenues through direct taxation rather than relying heavily on indirect taxes. Not only can this strategy help shield them from sudden shocks, but the use of tax breaks, such as R&D tax breaks, can also be used as an effective tool to stimulate favourable economic activities.

EXPLORE:

- Economic growth and public finance goals and projections
- Emerging technologies and technology roadmaps
- Future of Education, Government, Financial Services, and Work and the Workplace
- Progressive and proportional tax policies, and robust data collection and tax reporting
- Tax simplification



GLOBAL GDP GROWTH

3RD YEAR ON THE LIST



QUICK TAKE

Overall global GDP growth, as a percentage figure, steadily declined from an average of 6% in 1960 to 3% in 1985 after which its growth started levelling off until the global recession of 2009 and the global pandemic of 2020 which saw global GDP growth go negative and hit -2% and -4% respectively. Despite these fluctuations though GDP has grown exponentially since records began, even as **Global Productivity** flattens and stagnates, but as we look forwards most estimates put future global growth, excluding the rebound from shocks, at between 2.5% and 4.5% per annum.

Data sources: IMF, Nasdaq, World Bank, and various.

IMPACT

In 1AD it is estimated that global GDP was \$187 Billion in real terms, doubling in 1500 to \$430 Billion, and doubling again in the 1700's. By 1870 thanks to the Industrial Revolution it had doubled again to over \$1.92 Trillion, doubling again by 1900 to \$4.74 Trillion, after which growth continued to accelerate exponentially to hit \$113 Trillion today. While this is partly due to **Population Growth**, it's also thanks to technology driven productivity and proliferation.

By 2050 it is estimated that global GDP will double again with 20% of that coming from China, 15% from India, and 12% from the US, with the EU's share of global GDP shrinking from 15% today to 9%. It's also expected that the world's 32 largest economies will account for over 85% of world GDP.

Boosted by technology driven productivity and improvements the future rate of GDP growth is expected to far outweigh the rate of population growth with emerging markets (E7) growing twice as fast as advanced ones (G7). As a result by 2050 six of the seven largest economies are expected to be emerging economies including China, India, Indonesia, Brazil, and Russia.

EXAMPLES

Today, over 85% of all GDP is generated in cities and **Rapid Urbanisation** is expected to continue to fuel this trend far into the future, which therefore means that countries wanting to maximise GDP growth will need to have robust urban development and planning strategies.

By 2050 some of the greatest gains in global GDP rankings could come from Nigeria, the Philippines, and Vietnam who it's believed are set to all outperform the growth of many other developing countries to claim 14th, 19th, and 20th in the rankings respectively, while France and Italy, if they don't manage their economies carefully, could slide out of the top 10.

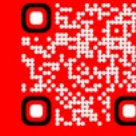
Today, some of the fastest growing economies are those that are stable, have buoyant domestic demand and strong exports - whether that's natural resources, technology, or other goods - which is why we see countries such as Bangladesh, Benin, Egypt, Ethiopia, Guyana, and South Sudan also rising. And, as for consequences, all these will impact the **Bi-Polar and Multi-Polar World, Global Reserve Currency Wars**, and other trends.

ACT NOW

The changing global economic landscape will have a significant impact on future world order as the countries with the largest economies continue to use **Hard Power Plays** and **Soft Power Plays** to influence the global agenda and politics, and as their populations spending power increases. However, it is the continued investment in technology R&D and STEM skills which will produce the greatest GDP productivity gains so it can be argued that the countries best able to leverage technology for growth will have the upper hand in growth.

EXPLORE:

- Borderless trading policies
- Emerging technologies and technology roadmaps
- ESG investments
- STEM education and technology R&D investment and reform
- Urban investment and planning



GLOBAL HOUSEHOLD DEBT

3RD YEAR ON THE LIST



QUICK TAKE

Global Household Debt, which is the combined debt of everyone within a household, including consumer debt and mortgages, has been increasing consistently for the past fifty years. Partly driven by **Population Growth**, as well as changes in consumer spending behaviours and **Global Demographic Shifts**, today it is at record highs standing at over \$57 Trillion. While the global COVID-19 Pandemic added an extra \$8 Trillion to this amount though, fuelled by cheap debt, many households finances are now in better shape than they were pre-pandemic. But there are exceptions.

Data sources: CEIC, Experian, IMF, Moody's, OECD, and various.

IMPACT

Different from **Global Public Debt** and Nonfinancial Corporate Debt global household debt has increased by over 58% in the past 50 years, albeit that during the late 2010's that rate was so low as to be almost flat.

During the early 2020's, however, there was a surge in debt levels driven by a variety of factors including the global pandemic and its associated workforce re-balancing and redundancies, as well as Russia's war in Ukraine which was a major factor in driving historically high **Global Inflation** rates.

While debt in itself is not a bad thing we all know that the crunch is people's ability to pay and while interest rates were at historic lows during the pandemic post-pandemic those rates started to surge to uncomfortable levels - albeit not quite to historic highs.

While household debt can boost economic growth in the short term in the medium term when a country's Debt-to-GDP ratios exceed 60% we often see softer consumer spending and recessions - we also see a drop in **Global Living Standards** and a drop in consumers ability to weather shocks.

EXAMPLES

While there are always going to be differences in the figures between regions and demographic groups developed countries are almost always likely to have significantly higher Debt-to-Net Disposable Income (DNDI) ratios. For example, when we look at the G7 their ratios range from 90% DNDI for Italy to 185% for Canada, with the remainder being 101% for the USA whose household debt levels now exceed \$15 Trillion, through to 102% for Germany, 115% for Japan, 124% for France, and 148% for the UK.

However, when we look outside of the G7 countries at the higher rates Sweden's DNDI level is 203%, South Korea's is 206%, Australia's 211%, the Netherlands and Switzerland's 222%, Norway's 241%, and Denmark has the highest at 255%. What's interesting here though is that some of these countries top the world's the **Global Happiness** indeces. Coincidence?

At the lower end of the scale we have Mexico at just 24% DNDI, South Africa 42%, Brazil 55%, Poland 59%, Chile 70%, and China 99%, but we also have a huge absence of data especially with regards to Africa, Asia, and LATAM.

ACT NOW

While household debt now equates to almost 40% of global GDP and rising the rate at which it grows, outside of system level shocks, is quite gradual. There is, however, a growing disparity between rural and urban levels of debt, as you might expect, with urban debt levels often being double those of people living in rural areas. This is something to keep an eye on when we consider the trend of **Rapid Urbanisation**. The absence of data in many regions, for traditional forms of debt as well as emerging "shadow debt classes," such as **Cryptocurrencies** and so on, also gives policy makers and other stakeholders problems.

EXPLORE:

- Central Bank Digital Currencies
- Emerging technologies and technology roadmaps
- Future of Financial Services, and Work
- Improved financial data gathering, analysis, and reporting



GLOBAL INDIRECT TAX RATES

3RD YEAR ON THE LIST



QUICK TAKE

Global indirect tax rates, which in 2022 hit \$10.4 Trillion, and are generally increasing globally, are what consumers pay as a result of the taxes levied on goods and services before they reach them. They're also used as a lever to alter market demand and influence consumer behaviours. With historically high levels of **Global Public Debt**, global supply chain transformation, and as consumers embrace new behaviours, services, and trends including **E-Commerce**, the **Green Energy Transition**, and **Vehicle Electrification**, and others, today governments are reforming their taxes.

Data sources: Bloomberg, BMJ, Grant Thornton, PWC, OECD, Vertex, and various.

IMPACT

Indirect taxes such as carbon taxes, customs and excise taxes, Goods and Services Taxes (GST), luxury taxes, sugar taxes, transaction taxes, Value Added Tax (VAT), and others are all important government revenue streams, and the introduction of **Central Bank Digital Currencies** could one day see them monitored and altered in real time according to market conditions.

While many people believe these taxes are regressive, in other words they disproportionately affect low income earners who end up paying a larger proportion of their income on them compared to high income earners, which affects **Wealth Inequality**, they have multiple impacts. High indirect taxes increase prices and reduce consumers purchasing power, often leading to an increase in savings activity which can lead to a slowdown in economic activity, make recession more likely, and impact regional and **Global GDP Growth**, **Global Inflation Rates**, and **Global Interest Rates**. Furthermore, how they're applied can also have a positive impact on trade relations if they're low, and make locally produced goods more competitive if they're high.

EXAMPLES

In OECD countries VAT represents on average 20.2% of total indirect tax receipts, while the actual VAT rates vary from a low of 5% for Canada, 10% for Australia and Japan, and scale to a high of 27% in Hungary, most countries sit in the 15% and above category.

As a means to change consumer behaviours indirect taxes have been a useful lever. In the UK the introduction of a 10% sugar tax, which raises over £240 Million per year, has seen over 50% of food manufacturers reduce the sugar content of their products and eliminate the equivalent of 45 Million kg of sugar per year - with the health benefits that brings. Meanwhile across Europe Single Use Plastic (SUP) taxes, which aim to reduce the **Plastic Planet** trend, have resulted in a 90% reduction in SUP use in most countries.

It's also estimated that carbon taxes, whose primary aim is to curtail **Climate Change** and the **Warming Planet** trends, and which average \$75 per ton of CO2 today but are increasing to above \$125, will help reduce global greenhouse gas emissions by 28%. So, as you can see there's more to these taxes than meets the eye.

ACT NOW

Indirect taxes can be a very effective tool when it comes to helping control and shape market demand, alter the competitive landscape, and change consumer behaviours. Furthermore, unlike **Global Direct Tax Rates** they can also capture a lot of the trade that takes place in the **Informal Economy** which is predominantly cash driven and hard to monitor. However, implemented incorrectly they can also create and drive **Black Market Economies**, on top of which governments need to ensure that their policies are equitable and fair and don't unnecessarily benefit one group of consumers over another. They also need to avoid tax by stealth.

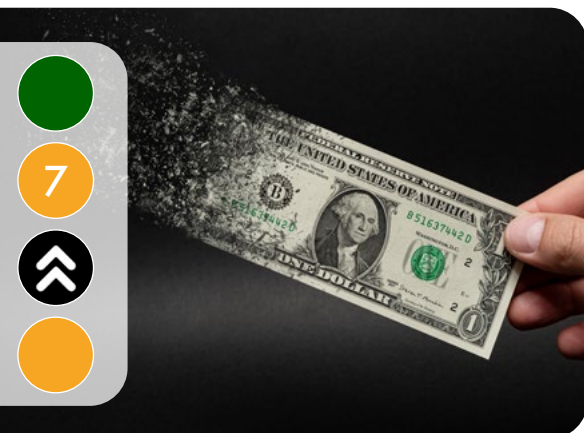
EXPLORE:

- Economic growth and public finance goals and projections
- Emerging technologies and technology roadmaps
- Future of Education, Government, Financial Services, and Work and the Workplace
- Progressive tax policies and tax simplification



GLOBAL INFLATION RATES

3RD YEAR ON THE LIST



QUICK TAKE

While global inflation rates have generally been predictable and steady for the past decade or so, staying within a low of 3.2% in 2020 and a high of 5.1% in 2011, and averaging 3.45% during the period, as the result of numerous global events including **Epidemics and Pandemics**, energy and food price inflation and increasing **Resource Scarcity**, and as a result of supply chain snarl ups, **Trade Wars**, and wars, in 2022 the global rate broke 8.8% with emerging economies faring worse than their advanced economy counterparts. It then started reducing again in early 2023.

Data sources: Economist, IMF, OECD, WEF, World Bank, and various.

IMPACT

High inflation rates have many economic and societal impacts including increased **Global Household Debt** as consumers have to pay more for energy, food, goods, and services, and higher **Global Public Debt** as the cost of running countries increases and as, in some cases, governments step in to financially subsidise and protect consumers and industries from the worst price increases.

High inflation also erodes purchasing power, which impacts **Global Trade Volumes**, and is detrimental to **Global Real Wages** and **Wealth Inequality**. The associated uncertainty can also suppress investment activity, affect income and wealth distribution - especially as it relates to individuals and businesses whose assets or investments, such as pensions, are or are not linked to inflation - and can result in central banks increasing interest rates to combat rising prices which can push economies into recession, and weaken a country's currency, financial reserves, and international competitiveness.

And then there's the fiscal pressure on governments who experience reduced tax receipts, which can lead to austerity, civil unrest, and rising unemployment.

EXAMPLES

Some of the worst examples of rising inflation rates include Zimbabwe which in 2008 saw inflation reach a staggering 89.7 Sextillion percent which was a combination of poor fiscal policies, political instability, and the collapse of the country's agriculture sector. During the darkest moments this rate also meant that the price of goods were doubling every day, and despite the Zimbabwean government issuing the world's first Trillion Zimbabwe (ZWL) dollar note in 2009 the country had to abandon its currency and adopt the US Dollar and South African Rand.

Elsewhere in Argentina, whose inflation rates have been historically the highest in the world in 2021 the rates hit 50% which saw the Argentine Peso lose 75% of its value against the US Dollar and made most imports prohibitively expensive, and their interest rates hit 38% while GDP collapsed by 9.9%.

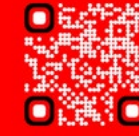
However, in South Sudan in 2021 we temporarily saw deflation of -11.6% which increased consumers purchasing power, but resulted in a slow down of consumer spending as people expected prices to continue to fall, as well as significant social and political instability.

ACT NOW

Inflation has a significant impact on the economic, political, and societal health of a country, and in every case high inflation has always brought with it hardships. As a result governments and organisations should do their utmost to keep inflation in check and under control, but they should also do their utmost to shelter themselves from countries who seek to weaponise it for their own advantage and use it as an extension of their **Soft Power Plays**.

EXPLORE:

- Anti-corruption initiatives
- Business and impact assessments
- Emerging technologies and technology roadmaps
- Future of Agriculture, Education, Energy, Financial Services, Manufacturing, and Work and the Workforce
- Global value chains and supply side controls and improvements
- Monetary, interest rate, tax, and wage control policies



GLOBAL INVESTMENT FLOWS

1ST YEAR ON THE LIST



QUICK TAKE

Driven by economic slowdowns, global geopolitics, and protectionism in 2023 we saw \$1.3 Tr of global Foreign Direct Investment (FDI), a 2% YoY decline. However, when adjusted for distortions from Conduit Economies, which facilitate and artificially inflate the financial flows between countries for tax advantages, the decline was greater than 10%. India declined 43% but greenfield investments remained strong, Europe 14%, Asia and China 8%, the USA 5%, Africa 3%, and LATAM 1%, with investment into the UK up 1.4%. **Global Value Chains** (GVCs) intensive sectors, minerals, and **Green Energy** remained resilient.

Data sources: China Briefing, Finance Asia, Fortune India, UNCTAD, and various.

IMPACT

There is no question that we're in a complex global investment environment and that **Belt and Road Initiatives, Bi-Polar and Multi-Polar World, BRICS 2.0** along with general **Economic Decoupling, Technological Decoupling, Shadow Standards Wars, Strategic Derisking**, and other trends all muddy the picture. Despite this though many experts expect a moderate up tick in global FDI volumes in the years to come which is good because the impact of FDI on economies and societies is profound.

FDI helps finance businesses in all stages of maturity allowing them to grow, invest, and create direct and indirect jobs. Investors also often aide knowledge and technology transfer which boost innovation and productivity, but which can also affect the culture and ideology of companies. FDI can also boost country's Corporate Tax receipts and infrastructure development, increase exports, GDP, and improve their balance of payments and skills pools. However, it can also exacerbate foreign dependency and **Soft Power Plays**, and environmental concerns, while profit repatriation results in capital outflows.

EXAMPLES

Providing detailed impact stats can be tricky. In 2024 €356 Bn of investment in Europe's energy, financial services, manufacturing, and tech sectors mainly from China, the UK, and US, helped create over 7 Ml jobs, and accounted for 12% of Ireland's GDP. In other regions UK FDI of £92 Bn in the energy, financial services, and real estate sectors supported 2 Ml jobs. In Asia \$519 Bn of FDI in digital economies and manufacturing, especially from China and Singapore, saw FDI account for 15% of Vietnam's GDP. Then in India \$83 Bn of FDI investment into the energy, pharmaceutical, and technology sectors contributed to the creation of over 6 Ml jobs.

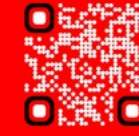
Meanwhile, specific examples include CATL's \$1.4 Bn Bolivian Lithium mining investment with long term impacts of \$9.9 Bn, Nissan's \$1.4 Bn UK EV manufacturing investment which created 6,200 jobs and represents 50% of UK vehicle exports, Google's \$850 Ml Singapore data centre investment supporting 3,000 new jobs, and Tesla's \$2 Bn Chinese Gigafactory which created 10,000 jobs and which produces over 700,000 EVs - or over half of Tesla's global production.

ACT NOW

Global investment flows can be the life blood of economies and when managed well they can benefit everyone and have a significant impact on a country's global competitiveness, GDP, and living standards. They can also be seen as a vote of confidence in the future of a business, sector, or country. However, while investment is almost always welcome countries can also find themselves being exploited and failing to reap some of the more impressive and lucrative gains with an example of this being some governments, such as China, often demanding that Chinese workers not local workers are employed to work on projects - thereby limiting the local economic and societal benefits.

EXPLORE:

- Asset value, Dependency, Economic, Impact, Risk, and Tax analysis
- Emerging technologies and technology roadmaps
- Industry diversification, ecosystems, and supply chain strategies
- Strong 'Country First' negotiation stance



GLOBAL LIVING STANDARDS

3RD YEAR ON THE LIST



QUICK TAKE

Global Living Standards have risen consistently for more than three decades, but during the early 2020's the living standards of more than 90% of the world's countries declined multiple years in a row as the combination of **Climate Change**, the COVID-19 Pandemic, debt burdens, raging inflation, and war, took their toll and erased more than five years of global progress. Putting this into context even at the height of the 2007 global recession the living standards of 'just' 10% of the world's countries were impacted, so now the world has to work extra hard to reclaim the gains its lost.

Data sources: Gapminder, Our World in Data, UNDP, World Bank, and various.

IMPACT

There are a lot of factors that impact people's living standards, and over the decades there's been constant debate about the impact of various global ideologies and systems on the trend, such as Autocracy versus Democracy, Capitalism versus Socialism, consumption versus materialism, as well as the prioritisation of GDP growth at all costs versus the environment and the rising **De-Growth Agenda** debates.

Since 2000 though democracy is under threat, and negative views about the world has surged, reaching all time highs - even when set against the backdrop of past world wars and **Global Recessions**. The number of adults experiencing high levels of stress is also at its highest level with 37% experiencing high levels of stress, up from 32% in 2005, and, unsurprisingly, political and **Social Polarisation** has also increased in over 75% of countries.

Since 1990 **Global Life Expectancy** has increased by 8% and globally people in extreme poverty has fallen from 36% to 10%, illiteracy from 24% to 13%, child mortality 9% to 4%, and over 7 Bn people, an increase of 3 Bn, have had a Secondary education.

EXAMPLES

Today, according to the UNDP when it comes to improvements in global living standards we are experiencing more "drivers and layers of uncertainty" than ever before which means we all need to remain vigilant and be working hard to build on the gains we've seen in the past. In terms of global life expectancy the greatest increase has been in Singapore where since 1800 life expectancy has jumped to 85 years on average - an increase of 193%.

We are also living in the best fed times in history with global per capita calorie intake increasing on average by 30% since 1940 when 57 people per 100,000 died from famine compared to today's figure of 14, with the biggest gains being seen in India where calorie intake increased from 2,020 per day to 2,549 and in China where it rose from 1,427 to 3,375.

We've also seen vaccines helping save billions of lives and reduce infant mortality, global access to safe water and sanitation increase from 62% to 72% and 29% to 54% respectively, and we've also seen global GDP per capita increase from \$1,102 in 1820 to over \$15,000 today.

ACT NOW

While improvements in global living standards were reversed in the early 2020's overall there are lots of bright spots. But, despite the good news, there are remaining areas of concern such as the ratcheting back of people's freedoms, especially as we see autocrats and dictators become bolder, and other challenges such as **Climate Change**, **Job Automation**, **Polarised Society**, **Wealth Inequality**, and others - all of which have obvious and non-obvious impacts that we need to be on guard against.

EXPLORE:

- Access to education, financial services, healthcare, and job markets
- Emerging technologies and technology roadmaps
- Future of Agriculture, Energy, Financial Services, Government, Healthcare, Transportation, and Work
- Global accords, and policy, and regulation reform



GLOBAL PRODUCTIVITY

3RD YEAR ON THE LIST



8



QUICK TAKE

When it comes to Global Productivity it is normally measured using labour based metrics. Overall the trend appears that global productivity growth has remained relatively flat for nearly four decades, despite technological progress and the diffusion of digital technologies which many believe should have boosted it - something that economists attribute to a deceleration in working population growth, the stabilisation of educational attainment, and the slowing pace of expansion into more diverse and complex forms of production as the growth of Global Value Chains (GVC) has stalled.

IMPACT

While average global productivity has grown modestly since 1981 from 0.75% to 2%, when it comes to Advanced Economies (AE) versus Emerging Market and Developing Economies (EMDE) there are significant differences.

During this period AE's productivity has declined steadily from 1.75% to just 0.5% today, while in EMDE's, which includes China, it's grown from -0.5% to 3.75% with a peak in 2007 of 6% and a marked slow down after the 2009 global recession - most of which is attributed to significant reductions in business services and manufacturing activity. Productivity growth was also 1% to 3% higher in countries with strong macroeconomic fundamentals and favourable demographic trends, such as in financial development, life expectancy, tertiary education, and participation in GVC.

However, despite this overall softness many believe technologies such as **Additive Manufacturing**, **Artificial Intelligence (AI)**, and other **General Purpose Technologies (GPT)** will provide a productivity boost in the future, but first they have to be adopted, and then there will be a lag.

EXAMPLES

What is most striking about this period of low productivity is that it coincides with enormous advances in technology. An extra 3.5 Billion people have gained access to the internet, computers and smartphones are ubiquitous, and online businesses and software have all flourished. And that's before we discuss how AI, **Digitisation**, and other trends are re-shaping the world. Despite all these apparent advances though as Robert Solow famously remarked: "You can see the Computer Age everywhere but in the productivity statistics."

However, while economists ponder over the causes and implications of the "Solox Paradox" there are some notable examples bucking this trends overall malaise which, when you dig deeper highlights some interesting data points ... The top five countries on the global productivity rankings Luxembourg, Ireland, Norway, Switzerland, and Denmark, have some things in common - 40 hour working weeks, good vacation policies, and so on. However, notably they all rank high on the Happiness Index and Quality of Life Scale, and all their citizens all have the greatest sense of life satisfaction. Coincidence?

ACT NOW

Not only does slow productivity growth have an impact on **Global GDP Growth**, but it also slows the rate at which we can solve global **Wealth Inequality**. There's also a growing belief that **Climate Change** and **Extreme Weather** will adversely affect this trend. However, with happiness, life satisfaction, and quality of life, all seeming to help improve a country's overall productivity one could argue that business leaders should re-double their efforts to make their employees feel "happy and fulfilled."

EXPLORE:

- Emerging technologies and technology roadmaps
- Future of Artificial Intelligence, HR, Manufacturing, and Work
- Health and well being policies



GLOBAL PUBLIC DEBT

3RD YEAR ON THE LIST



QUICK TAKE

Today global debt stands at over \$300 Trillion, or 256% of GDP, an increase of over 28% on pre COVID-19 pandemic levels and double 2016 levels. Of this 40%, the highest value in more than six decades, or 95% of GDP and over \$120 Trillion is Global Public Debt, with the remainder being **Global Household Debt** and Nonfinancial Corporate Debt. With over half the 28% rise being the result of increased government borrowing it should therefore come as little surprise that many governments now face an uncertain future, and are raising taxes while tightening spending.

Data sources: ECB, IIF, IMF, OECD, World Bank, and various.

IMPACT

While the global pandemic had a significant impact on countries debt levels it was different for different markets. In advanced economies where governments were empowered to help their citizens more, debt levels increased by 33% year on year to support initiatives. In emerging middle income economies this was 16% and in low income economies it was 8%. As a result the proportion of low income countries in debt distress and at high risk of debt distress doubled to over 60% from 2015 levels. However, while low income economies were hardest hit it's China and the US who have the highest public debt levels, standing at \$9.7 Trillion and \$31 Trillion respectively, with the USA alone spending \$48 Billion or 12% of all US Federal spending, to maintain it and that figure is increasing.

High levels of public debt can decrease **Global Living Standards**, create an environment of higher income taxes, inflation, tariffs, and unemployment, as well as increase trade deficits and intensify wage pressure. They can also reduce disposable income, business confidence, investment, and profits, suppress consumer and government spending and usher in recession.

EXAMPLES

In the past we have seen multiple countries affected by their public debt loads and since 2000 several countries have gone bankrupt including Argentina in 2001 with \$145 Billion of debt, Iceland in 2008 with \$85 Billion, Lebanon in 2020 with \$90 Billion or 170% GDP, and Sri Lanka with \$51 Billion. Meanwhile, in the past two centuries Brazil, Chile, Costa Rica, Russia, Spain, and Uruguay have all declared bankruptcy more than nine times, with Ecuador's tally being ten.

While today Japan still has the highest debt to GDP ratio at 246%, Greece has the second highest at 181%. And, in Greece's case in 2010 their looming default triggered the biggest financial rescue of a bankrupt country in history. But, despite the \$290 Billion bailout by the ECB and the IMF, which they'll be repaying until 2060, living standards collapsed with a third of Greeks falling into poverty, wages fell 20%, unemployment hit 25% overall with youth unemployment hitting 50%, and the country entered a severe recession. And even now Greece still under performs the OECD Better Life Index in all areas except health, so they have a long way to go before they recover.

ACT NOW

Buying and selling public debt is big business, and while there's no denying that public debt plays a vital role in helping economies develop and grow, as well as help control inflation and stabilise unemployment levels, as we've seen many times when debt becomes unmanageable the results can be disastrous for countries and their citizens.

EXPLORE:

- Alternative borrowing mechanisms
- Financial restructuring and stabilisation
- Future of Financial Services and Governments
- Global accords, and policy and regulation reform
- Improved financial accountability, management, and resilience
- Prepare for shocks
- Tackle debt vulnerabilities



GLOBAL R&D SPENDING

3RD YEAR ON THE LIST



QUICK TAKE

R&D spending has always gone hand in hand with **Global GDP Growth** but as we enter into an **Innovation Cold War** global R&D spending is soaring. In the past decade global spend has increased from \$1.99Tr per year to \$2.63Tr, an average increase of 2.84% per year, with the world's top 1,000 companies spending an estimated \$858Bn. However, as various countries look to supercharge their future growth and security we've seen staggering increases in spending from countries including China which now accounts for 24.8%, of the global total, up from just 4.9% in 2000, and others.

Data sources: China NBS, FAS, PWC, World Bank, and various.

IMPACT

The impact of R&D spending can be seen everywhere, from the hospitals you visit to the technologies you use, and it drives growth, jobs, prosperity, and of course underpins national security. Unsurprisingly though the amount of money that governments and companies spend varies by region and sector.

Globally hardware and software dominates spending with for 31% share of the total global corporate spend, followed by health at 17%, chemicals at 13%, transportation at 12%, energy at 7%, and aerospace and defence at 2%. However, as we transition to a **Bi-Polar and Multi-Polar World** and **Net Zero** it's highly likely that the latter two will increase dramatically - all of which will have major consequences for business and society in the future.

While corporate spending enriches private companies public R&D spending plays a vital role in helping de-risk and kick start new industries and industry R&D initiatives, as well as accelerating the transition from the old to the new - whether it's supporting **AI** and **Web 3.0**, building supercharger networks to support **Vehicle Electrification**, rolling out **5G**, or many other bold transitions.

EXAMPLES

When we look at some interesting examples of this trend we can split them into two categories - public spending and private sector spending.

Globally the top 10 countries represent \$1.99 Trillion of spend - or 85% of the global total with the top five being the US at \$721Bn, China at \$582Bn - which has almost tripled in a decade, Japan at \$174Bn, Germany at \$146Bn, and South Korea at \$112Bn.

It's also interesting to see where some governments are putting their money. The US, for example, recently announced a \$325Bn package to support climate, digital technologies, energy, and health R&D, and \$280Bn to support semiconductor development. Meanwhile the EU's \$100Bn Horizon package aims to make European economies and societies healthier, greener, and more digital, and the UK's \$30Bn package included creating its own ARPA program as part of the **ARPA Everything** trend. Then, looking to Asia China placed a massive \$1.4Tr bet on next generation technologies as it looks to leap frog the US and, as part of a **Standards Shadow War**, dominate the future of global tech.

ACT NOW

Increasingly R&D spending is being seen by many governments as a sign of competitiveness, intent, and national pride so it's little wonder that with the whole world economy to play for the biggest economies are announcing raft after raft of aggressive spending packages and essentially weaponising this trend in their quest to be top dog. However, while this is interesting in itself I would advise you to pay close attention to the standards wars because whoever owns the global standards often controls the technology and its future development direction - often to the detriment of their adversaries.

EXPLORE:

- Belt and Road Initiatives
- Common global standards
- Emerging technology and technology roadmaps
- Future of Aerospace and Defence, AI, Communications, Creativity and Innovation, Cyber Security, Energy, Government, Healthcare, Manufacturing, Materials, and Transportation



GLOBAL REAL WAGES

3RD YEAR ON THE LIST



QUICK TAKE

While it varies by region and sector, and the devil is always in the details, Global Real Wages have been growing at between 1% and 3% per year since 2000, and even though that's dwarfed by the **CEO Pay Gaps** trend, maintaining that growth in spite of economic shocks and global crises has not been easy. In the early 2020's multiple shocks such as the global COVID-19 pandemic, the Ukraine War, and historically high **Global Inflation Rates**, and turbulent FOREX markets, which all had an impact on **Global Living Standards**, saw global real wages fall for the first time by 0.9%.

Data sources: ILO, ONS, TUC, and various.

IMPACT

While G7 economies were worst hit during this period, seeing real wages decline by 2.2%, the remainder of the G20 countries fared better with 0.8% growth. However, despite this seemingly good news that was still 2.6% less than their average real wage growth rate in 2019.

Real wage growth often causes price inflation and higher **Global GDP Growth**, which then often has a positive impact on **Global Living Standards** and **Global Happiness**.

Correspondingly, a fall in real wages - especially large falls like we saw in the early 2020's - can fuel social unrest, strikes, make **Wealth Inequality** and the **Mental Health Crisis** worse and fuel the **Polarised Society**. These negative changes in real wages also often impact the lowest income workers the hardest and reduce consumers purchasing power and disposable income, which can tip countries into recession. It also sometimes means consumers have to make tough choices, such as between "eating or heating," which in turn can then also increase **Global Household Debt** which then comes with its own issues.

EXAMPLES

While the figures are dynamic, according to global and regional conditions, during the unprecedented period of crisis in the early 2020's on average we saw Canada and the USA's real wages decline by 3.2%, the EU's decline by at least 2.4% and up to 3.3% for Eastern Europe, and LATAM's decline by 1.7%, and Africa's by 1.4%. However, interestingly not all the figures were negative, Central and Western Asia's real wages grew between 2.5% and 12.4%, Asia and the Pacific's grew by between 0.3% and 3.5%, and the Middle East saw an increase of 0.5%.

While these figures change on a quarterly basis the trends of the G7 versus the G20 versus the remainder of the world's results are interesting and show a strong contrast between mature and emerging markets. It also has implications for the cost and distribution of manufacturing and other services in the future.

Meanwhile, in the UK the worst real wage declines on record triggered mass strike action across almost all groups and areas of society, and in some instances almost brought the country to a standstill economic and social standstill.

ACT NOW

People have always demanded fair pay for a fair days work, but unlike yesteryear when very few people were knowledgeable about actual real wage growth rates today everyone has access to them on demand, and a more informed worker is a more empowered worker as we saw with the high levels of activism, strike action, and unrest when after decades of growth we saw some of the worst declines on record.

EXPLORE:

- Adjusting minimum wage rates
- Energy, food, and manufacturing security
- Future of Agriculture, Education, Energy, Financial Services, Healthcare, Manufacturing, and Work.
- Levelling up initiatives
- Targeted economic packages



GLOBAL RESERVE CURRENCY WARS

3RD YEAR ON THE LIST



QUICK TAKE

The first US dollar, as we know it today, was printed in 1914 and six decades later, under the Bretton Woods Agreement and backed by the world's largest gold reserves at the time, it became the world's default reserve currency. Today, 40% of the world's debt and more than 61% of all foreign bank reserves are denominated in dollars and many of the reserves are in cash or US bonds, such as US Treasuries. Despite this though a growing club of powerful countries, unhappy with the US using the dollar as a trade and **Sanctions** tool, are starting to steer away from it and undermine it.

Data sources: IAGS, IMF, and various.

IMPACT

For decades the US dollar has been the world's reserve currency and has been a symbol of stability and strength, but today China, the EU, and Russia are moving to "De-dollarize" their economies in order to remove themselves from being subject to the "whim" of US jurisdiction if they transact in dollars, as well as increase the importance of their own currencies.

Prompted by repetitive sanctions on their countries and citizens, as well as geopolitical reasons, it's easy to see why China and Russia want to reduce the dollar's global importance. However, the EU's impetus to move came when in 2018 Washington withdrew from the Iran nuclear deal, which was then followed by the restoration of sanctions on Tehran - an unpalatable situation which left many European organisations vulnerable to punishment from Washington if they transacted with Iran.

If, or when, the dollar's influence declines then other currencies will fill the void, and while the Yuan was originally the prime contender China's behaviour and capital flow policies in recent years have now put that in question, with a "Eurodollar" now looking more likely.

EXAMPLES

Countries like the BRICS are increasingly calling the US Dollar the past and are working to replace it. In China's case, for example, they've created a "Petro-Yuan" - Yuan denominated crude oil futures - and they're now paying for crude oil, which has always traditionally been paid for in dollars or Euros, in Yuan.

The BRICS are also creating their own digital currency networks, with China and Russia also building their own global transaction networks, such as China's CIPS which rivals SWIFT. They pair have also managed to reduce the use of the dollar in their bilateral trade dealings with the dollar now accounting for just 46% of all bilateral trade, down from 90% in 2015. Of the remaining balance 30% of it is now in Euros, and 24% is a combination of the Ruble and Yuan. And all BRICS and authoritarian countries are following a similar trend.

The movement against the US dollar, especially in Sanctions hit countries, is gathering pace, and in a sign of the times even investors like Warren Buffet, have started buying gold as opposed to debt, which is an odd patriotic commitment to a nation that's been off the Gold Standard since 1971.

ACT NOW

The use of sanctions, and the use of **Global Trade Volumes** and the use of the global CHIPS and SWIFT payment networks as trade weapons, has created increasing alarm and a lack of confidence in US dollar usage in China and Russia, and now this alarm has spread to Brazil, Europe, India, Iran, and Turkey. As a consequence, if the US is not very careful and continues to weaponise its financial power, it could end up throwing petrol on the fire and accelerate the undermining of its own currency.

EXPLORE:

- Business and impact assessments
- Future of Governments, and Financial Services
- Soft power plays and trade wars
- Strong global institutions



GLOBAL TRADE FLOWS

3RD YEAR ON THE LIST



QUICK TAKE

As **Global GDP Growth** and **Global Inflation Rates** and interest rates stabilise, and as we see changes in **Global Trade Volumes**, **Geopolitical Fragmentation**, caused in part by the **Bi-Polar and Multi-Polar World** trend and regional conflicts, continue to impact intra-bloc trading patterns - especially West-East trading patterns - Global Trade Flows are also changing because of the trends of **Strategic Dislocation**, as well as in some cases by **Climate Change** and **Extreme Weather** which is not only making some major rivers unnavigable but also damaging vital infrastructure.

Data sources: McKinsey & Co, State Street, UNCATD, and various.

IMPACT

The tracking of this trend gives us important insights into the state of **Global Living Standards**, **Global Productivity**, and also into economic and political alliances. Conflicts, geopolitics, and **Trade Wars** are just a few of the trends that affect it, and while changes take time to materialise today we can clearly see trade flow patterns changing - part out of necessity and as the result of different disruptive events, and partly as they re-align along primarily geopolitical lines.

Not only does this trend affect long term infrastructure and investment decisions in different countries, as we see with the continued re-imagining of China's and the EU-US **Belt and Road Initiatives**, but these patterns can also have a significant influence on consumer preferences, currency valuations via trade deficits, inflation rates, market access, regional competitiveness and innovation scores, as well as government policies and regulations, and regional GDP. It also impacts the availability, price, and supply of consumer and industrial goods, as well as energy, food, and raw materials, as well as also affecting employment, wages, and market sentiment.

EXAMPLES

Examples of this trend in action include the continued animosity between the world's two largest economies - China and the USA - which have both been embroiled in **Corporate Blacklisting**, **Sanctions**, and **Trade Wars**. In recent years a 14.5% decline in US imports from China has seen the US diversify its imports to favour Mexico and South East Asia, meanwhile China has also been diversifying by ploughing more effort into its **BRICS 2.0** and **Global Reserve Currency Wars** and by increasing exports to ASEAN countries by 9% and to Africa by 2.5%, both of which are expected to grow.

Meanwhile, as Intra-Asian trade grows, with trade within Asia now accounting for approximately 60% of the region's total, and showing a clear pivot towards regional trade over global trade, India has also been growing its exports to ASEAN countries by 7%. Elsewhere, the UK's post Brexit trade with the EU has seen a 14% decline, and while Intra-EU trade remains stable the bloc has been increasingly looking to South East Asia and NAM as alternative trading partners to China, with exports to these regions growing by 3.4% and 3.6%, but exports to Africa dropping by 5%.

ACT NOW

Change in Global Trade Flows affects everything from infrastructure and investment, including Direct Foreign Investment (FDI) decisions right through to the development of new economic trading blocs, trade agreements, political alliances, and much more. Therefore it is imperative that executives have a good understanding of this trend and its future direction, as well as have the people and processes in place to assess the risks.

EXPLORE:

- Business and impact assessments
- Business resilience strategies
- Geopolitical, investment, and trade dependencies, flows, and risks
- Infrastructure development initiatives
- Regulatory and legal frameworks
- Supply chain strategies



GLOBAL TRADE VOLUMES

3RD YEAR ON THE LIST



QUICK TAKE

On average global trade has grown at 5% per year since the 1990's, with estimates suggesting 2050 volumes will be three to four times current volumes with most of the growth coming from global services trade which has risen from \$4.4 Trillion in 2011 to \$6.0 Trillion in 2019, with a 20% decline during the global pandemic.

Meanwhile, global merchandise trade which is seen as the more resilient of the two, with only a 5.3% pandemic fall, has averaged \$18.26 Trillion over the past decade with highs of \$19.3 Trillion in 2019 and lows of \$16 Trillion in 2016.

Data sources: BGMEA, ITC, UNCTAD, World Bank, WTO, and various.

IMPACT

Global trade has many impacts on the global economy, politics, and society. Economically, it allows countries with advantages in particular fields to capitalise on them and open up new global markets, thereby growing GDP, inward investment, and jobs. Today an estimated 1.5 Billion people, or 29% of the world's population, rely on global trade for their livelihoods, meaning that it can be an effective tool to reduce **Global Wealth Inequality** and **Global Poverty**. It also helps maintain price stability and keep **Global Inflation Rates** in check by providing consumers access to a wide range of competitively priced goods and services. Societally it increases access to essential resources such as food, medicines, and raw materials, as well as promoting cultural exchange and facilitating innovation. And, politically, it can boost cooperation between nations, and lead to the creation of new international alliances and institutions. However, as we transition to a **Bi-Polar and Multi-Polar World**, trade is increasingly being weaponised resulting in today's **Belt and Road Initiatives**, **Global Reserve Currency Wars**, the **Innovation Cold War**, and the **Trade Wars** that affect so many of us.

EXAMPLES

While there are many examples I could cite these are some of the more interesting ones. In Bangladesh, whose export market is predominantly driven by cheap labour, the textiles and apparel sector has seen staggering growth since the 1980's and now accounts for more than 80% of the country's total exports with the Ready Made Garment (RMG) sector alone accounting for over 4.4 Million jobs. However, this also means that the country's economy is also at high risk as increasingly sophisticated **Robotics** increase the likelihood of mass **Job Automation**.

Trade agreements like NAFTA signed in 1994 and which by 2017 had boosted Mexican exports into the USA to over \$110 Billion, as well as its replacement the USMCA worth an estimated \$1.3 Trillion, TPP worth \$356 Billion, and the EU-South Korea Free Trade Agreement worth \$90 Billion, are all good examples of the benefit of strong political alliances and collaboration. But agreements can also be used as a tool to advance and strengthen geopolitical ambitions and extend **Soft Power Plays** such as the China-Russia pacts worth an estimated \$200 Billion.

ACT NOW

While many experts and professionals use global trade and GDP as a measure of the health of the global economy there are those who believe continued **Global GDP Growth** is detrimental to the well being of the environment and society with the result being that they advocate a **Degrowth Agenda**. However, while this is an interesting point of view, and perhaps accurate, it is highly unlikely that any government will abandon their focus on growing GDP and using this trend as a tool to bolster their economies and societies.

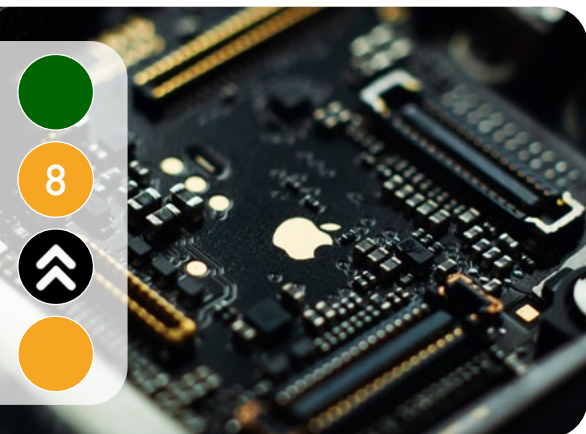
EXPLORE:

- Emerging technologies and technology roadmaps
- Future of Education, Governments, Logistics, Manufacturing, Work and the Workplace
- Infrastructure, investment, and policies that promote stability
- Global accords, legal, and market access reforms
- Trade weaponisation



GLOBAL VALUE CHAINS

1ST YEAR ON THE LIST



QUICK TAKE

Today 70% of all **Global Trade Flows** occur in Global Value Chains (GVCs) such as components, materials, and services, boosted by low trade barriers - which are now rising thanks to **Geopolitical Fragmentation** and **Selective Decoupling**. GVCs have a great impact on economic growth, income equality, and living standards. Today 45% of GVC value is captured by the USA, 30% by China - up from 7% in 2000, 12% by Japan, and 8% by Germany, with the rest bringing up the rear. GVC activities include Distribution and Logistics, Manufacturing, Marketing and Sales, R&D, Sourcing, and Support.

Data sources: UNSD, World Bank, WTO, and various.

IMPACT

The impact of being high up a value chain which ultimately boosts a brand's profit margins and profitability can be significant. Not only does it give companies more strategic control over their supply chains and partners, including greater bargaining power and the ability to influence key decision making at every level - including the government level - but they also more likely to experience greater brand loyalty and are much less vulnerable to price competition. Additionally, greater profitability also improves companies' resilience to shocks, gives them ability to invest in new assets, facilities, and operations, as well as their workforce and experimentation, and plays a vital role in helping them capitalise on new markets and opportunities quicker than their competitors.

Given the dynamics it is no surprise therefore that most companies in this bracket outsource their non-core activities, such as manufacturing and assembly, to third parties which helps them focus on higher value activities such as branding, the customer experience, design, ecosystem development and lock in, ESG, R&D, and service expansion to name a few.

EXAMPLES

While there are many companies that have done well to create and capture premium value Apple is perhaps the best example with an estimated 42% of the value or the price premium being created and captured by the company directly through branding, design, services, and software, 30% being captured by their component suppliers especially those in Japan, South Korea, and Taiwan such as SK Hynix, Samsung, and TSMC, and just 3% being captured in China by Foxconn their assembly partner.

Increasingly though, in a major shift we are seeing Chinese companies, especially those in the automotive sector working hard to create and capture more value. Traditionally the country that companies outsourced low value manufacturing and assembly to today Chinese companies are becoming experts at branding, distribution and logistics, marketing, sales, and support and they are getting so good at it that in 2024 the German government, seeing a flood of Chinese Electric Vehicles entering Europe and challenging their own automotive manufacturers status quo called the development an "Existential threat."

ACT NOW

With middle and low income countries only capturing 15-20% of value and <5% respectively there is clearly opportunity which goes to show that few companies and countries truly manage to create and capture a large amount of premium value from their activities. Increasingly in the future those who can though will be among the most influential and successful on the global stage. However, while most focus today is on physical GVCs executives should examine "Digital GVCs," with good examples being the tech giants who are trying to dominate the **Artificial Intelligence (AI)** GVC where AI itself is the value and the service, and also the creator of value as we see with **Creative Machines**.

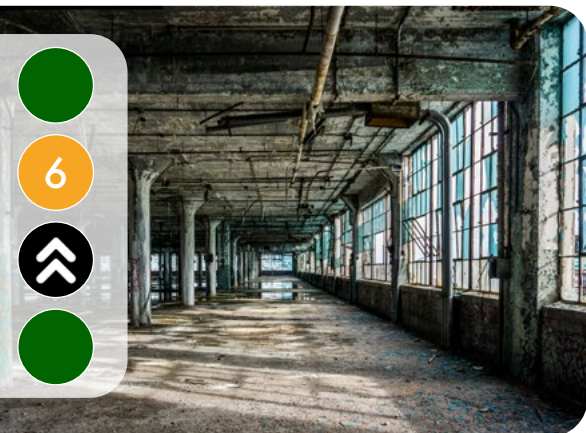
EXPLORE:

- Brand led value capture
- Emerging technology and technology roadmaps
- Identify high value activities
- IP protection and vertical integration



INDUSTRY COLLAPSE

1ST YEAR ON THE LIST



QUICK TAKE

While we often think of industries persisting in one form or another forever the fact is that entire industries can fade away and be superseded quite quickly. While it takes a lot to undermine and collapse an entire industry the main causes are because of changing consumer trends and regulations, then more recently environmental and technological disruption, including automation and digitisation, which have become the leading cause. In the past 30 years estimates suggest this trend has increased and therefore accelerated by 67% with one popular indicator being the shrinkage of corporate lifespans.

Data sources: Bloomberg, Deloitte, Innosight, and various.

IMPACT

The collapse of entire industries often has disastrous impacts on individuals, regions, and countries which can persist for decades or more, with the industries that replace them - if there are any - often seeing rapid growth. Impacts of industry collapse often include massive job displacement and job losses, economic decline, increased corporate turnover, and have huge regional and societal consequences which include the decline of local economies, infrastructure, and well being - which has an impact on **Global Life Expectancy**. Additionally, there can also be corresponding increases in crime rates and on the dependency of social safety nets which can put pressure on **Global Public Debt** values and countries **GDP Growth**.

However, while industry collapses can be catastrophic especially if nothing fills the void, this trend can also spur innovation, lead to the development of new industries, and reinforce the need for company's leadership teams to undertake the process of **Creative Destruction** which, if managed correctly can put them in a better long term position to survive and outpace any new competition.

EXAMPLES

As we continue to see an **Accelerating Rate of Change** in the world, driven in part by increased access to capital and the **Bi-Polar and Multi-Polar World**, as well as **Digitisation**, hyper connectivity, and increasingly advanced **General Purpose Technologies** such as **Artificial Intelligence (AI)** - which in some cases accelerates and amplifies **Price Collapse** which fuels this trend - we have many examples.

Recent ones include the collapse of the printing and publishing industry and consumer postal services, as well as the traditional global taxi industry, which felt the brunt of Uber, and the global coal industry collapse caused by the **Green Energy Transition** and **Net Zero pledges**. Furthermore, as AI reduces the cost of producing content to almost zero we could soon see the global economic collapse of the Media and Entertainment industry. And back in 1950 we saw the historic collapse of the Detroit automotive industry with the city losing 48% of its manufacturing jobs and filing for bankruptcy in 2013 - 63 years later, and the collapse of the US steel industry in the Rust Belt saw 75% of jobs lost, a 50% population decline, and a 10% increase in poverty rates.

ACT NOW

Using the S&P500 as a bell weather for this trend is interesting, but doesn't give us the whole picture. That said though, the longevity of companies in the index has fallen from on average 33 years in 1965, to 20 years in 1990, to currently 18 years with it expected to fall further to 15 years by 2030 with more than 50% of the index being affected - all of which, in part, is also accelerated by the **Power of the Individual** trend.

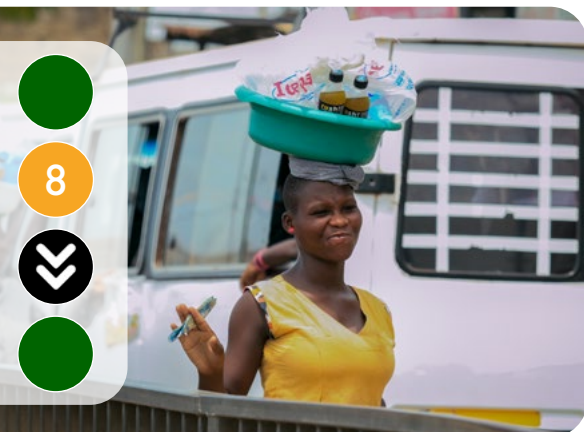
EXPLORE:

- Adaptive and agile business models and organisational structures
- Business and impact assessments
- Creative Destruction, Disruption, Foresight, and Innovation programs
- Emerging technology and technology roadmaps
- Geographic and market dispersion
- Industry diversification
- M&A strategies
- Market, risk, and trend analysis



INFORMAL ECONOMY

3RD YEAR ON THE LIST



QUICK TAKE

The Informal Economy, which represents over 15% of global GDP, is the part of any economy that is neither taxed nor monitored by any form of government. While it encompasses a broad range of economic activities, enterprises, and jobs, that have market value, this also means that workers often work in sub par conditions and are neither regulated nor protected.

Today, an estimated 2 Billion people, or 60% of the world's adult labour force, work informally with 93% of them being in developing and emerging countries.

IMPACT

In low and middle income economies it's estimated that 35% of their GDP is informal, and therefore untaxed, with that falling to 15% in advanced economies. And, globally people living in rural areas are twice as likely to be informally employed than those in cities - a ratio that could change with **Rapid Urbanisation** - with the highest levels of informal employment, or 90%, being in the agricultural sector.

In Africa an estimated 85% of employment is informal, with that being 68% in Asia and the Pacific, 67% in Arab states, 40% in the Americas, and 25% in Europe and Central Asia, and it's often the 740 Million women workers that are in the most vulnerable situations. Additionally, besides from dangerous working conditions and a lack of meaningful legal protection or economic security for workers, as well as having a major impact on **Global Living Standards** and **Wealth Inequality**, this trend is also a breeding ground for corruption and criminality, and the economies of countries with the highest rates of informal workers are not only held back but are also the least capable of recovering from shocks.

EXAMPLES

While in time we can see the rise of new business models, technologies, and trends, such as **Cryptocurrencies**, **Decentralised Finance**, the **Gig Economy**, **Virtual Nations**, and **Web 3.0**, potentially bringing more people and new demographic groups into the Informal Economy - legally or illegally - from a traditional perspective we all know the kinds of jobs that people in the informal economy occupy, which include everything from beach and street vendors, to shoe shining and shanty town businesses, farming, and even increasingly co-ordinated cyber crime.

At its most basic level the informal economy is made up of collections of people who, whether it be because of a lack of education, government support, or just plain options, try to make a living in any way they can, the net result of which meant that during the COVID-19 Pandemic an estimated 70% of people didn't earn anything. In India specifically though, for example, it's estimated that the Informal Economy is responsible for between 80% and 90% of all recycling activities, as well as between 40% and 70% of the country's total manufacturing output which is a giant proportion.

ACT NOW

While in time we can see new ways for people to participate in the Informal Economy currently its size is shrinking globally as new policies, technologies, and tools have a positive impact. However, while this trend has a significant impact on people's living standards, as well as their own economic and personal security, as you can see there is still a lot to be done.

EXPLORE:

- Access to education, financial services, healthcare, and job markets
- Emerging technologies and technology roadmaps
- Future of Education, Financial Services, Government, Healthcare, and Work
- Global accords, and policy, and regulation reform



INTERNATIONAL MIGRATION

3RD YEAR ON THE LIST



QUICK TAKE

There are many reasons why people want to leave their native countries and migrate including economic ones, famine, persecution, violence, war, and many others. But whatever the reason they all have a common goal - a quest for a better and decent life - something that many of us take for granted.

After all, in many cases your future is determined by the country you're born in. Today, there are more than 272 Million international migrants, or 3.25% of the global population - a figure which has increased on average by 4.5% every year since 1970 when it was 84 Million.

IMPACT

While there is an economic cost of international migration, for example the EU estimate managing migrant inflows, securing borders, and stemming migration, costs them at least \$7 Billion a year before any social "integration" costs, and the US estimates they have spent \$333 Billion "tackling the issue" since 2003 there is no doubt that the desire to migrate is only going one way - up. And that's in spite of the difficulties migrants face which includes all manner of dangers, including death.

Mostly driven by **Climate Change**, war, and **Wealth Inequality**, as well as the other aforementioned factors stats show that the most "Diasporas" come from India, then Mexico, China, Russia, and Syria and that unsurprisingly their top destinations are the US, Germany, Saudi Arabia, Russia, the UK and the UAE, with over 80% of the UAE's population now being migrants.

Today 48% of migrants are male and 52% are female with over 40% being between the ages of 25 and 45, and since 1996 at least 75,000 people are confirmed to have died attempting dangerous crossings.

EXAMPLES

Examples of international migration are everywhere and in general there are very few good stories and the numbers are staggering.

To put the scale of the issue into perspective if the number of migrants were a country then they would be the world's forth largest behind the US. Of the 272 Million or so migrants the UNHCR estimate that 26 Million are refugees, and 46 Million are internally displaced people - with the remainder, almost 200 Million, being mostly climate or economic migrants.

After the war in Syria over 13.5 Million Syrians were displaced - more than half the country's entire population with nearly 11.1 Million needing humanitarian assistance to survive. And, in Europe politicians talk of a "Migrant Crisis" with wars in Afghanistan, Libya, the Middle East, and Syria, and economic troubles in Africa, seeing over 5.2 Million people trying to cross their borders since 2016.

Elsewhere, in the US border arrests of migrants topped 1 Million for their first time in 2021, and everywhere you look migrant numbers are increasing.

ACT NOW

With the number of migrants increasing globally, with no end in sight, governments and societies everywhere have a herculean task ahead of them - on the one hand to manage and stem the inflows, but on the other to avoid the harmful loss of human capital and skills that developing economies so desperately need to grow and prosper.

EXPLORE:

- Future of Education, Healthcare, Sustainability, Work and the Workplace
- Reducing inequalities
- Unilateral global accords and coordinated global action



MEGACITIES

3RD YEAR ON THE LIST



QUICK TAKE

We are entering the age of Megacities, cities that have more than 10 Million inhabitants. In 1975 there were only 4 and today, thanks in part to **Population Growth** and **Rapid Urbanisation**, there are 28 with another 13 expected by 2030, with half of all those expected to be in China and India. However, while these sprawling urban centers will be among the largest consumers and economies on the planet there are still substantial proportions of residents in especially South Asian megacities who lack basic services including electricity, water, and sewerage.

Data sources: Carnegie Mellon, UNESCO, United Nations, and various.

IMPACT

As the number and sheer size of megacities continues to grow everything about them is enormous including their consumption. Today it's estimated that the world's megacities account for more than 10% of global electricity and gasoline use, and produce more than 13% of all the world's solid waste, which then goes to show the important role they will continue to have in helping us fight trends such as **Climate Change** and **Resource Scarcity**, among others.

Furthermore, as cities grow studies show that their GDP grows disproportionately larger as well. Today megacities are home to 6.7% of the global population but account for 14.6% of global GDP. Consequently, with over 700 Million people living in megacities by 2030, and 2.5 Bn by 2050, many of them will have economies bigger than many countries, such as Chicago whose GDP in 2030 is expected to exceed \$596 Bn, Bogota with \$109 Bn, and Chennai with \$50 Bn.

Additionally, by 2030 Tokyo will be the world's largest megacity with 38 Million people, followed closely by Delhi with 36 Million, Shanghai with 28 Million, and then many more.

EXAMPLES

When it comes to megacities nothing is as straightforward as perhaps it could or should be.

Take, for example, Jakarta by 2030 it's estimated that its population will exceed 11 Million people, but as **Sea Level Rise** becomes an increasing issue for the city in 2019 the Indonesian government took the decision to move its capital city, as well as many of its inhabitants as possible from the island of Java to the province of East Kalimantan on Borneo.

Then there's Mexico City which, along with its 22 Million inhabitants, has sunk more than 10 meters in a century and which is sinking at a rate of 50cm a year because so much water has been pumped out of its aquifer, a trend that's being further exacerbated by increasing **Water scarcity and Stress** in the region - the consequence of which is increasing social disquiet and collapsing infrastructure.

And these issues are all before we shine a spotlight on the increasing pressures on local education, healthcare, and transportation systems, as well as other precious resources and services.

ACT NOW

As more people move to urban areas governments are going to have to have a radical re-think in how they avoid and alleviate many of the problems these megacities are experiencing today as well as the ones they'll experience tomorrow, such as the phenomenon of the **Warming Planet** which in itself is already turning many of these urban areas into furnace like death traps. Megacities it seems come with mega opportunities, economically speaking, but they also come with mega problems, which makes proper forward planning and urban planning essential.

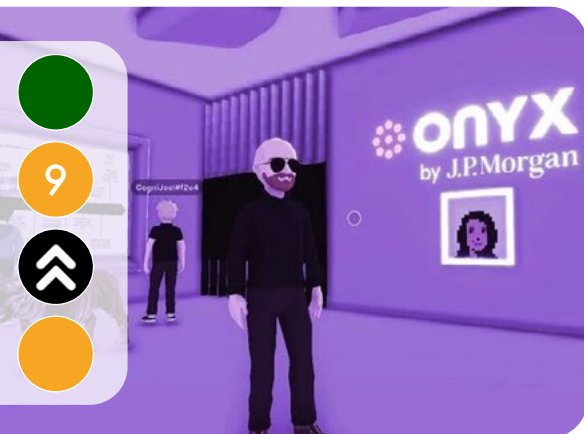
EXPLORE:

- Business and impact assessments
- Emerging technologies and technology roadmaps
- Future of Agriculture, Communications, Construction, Energy, Healthcare, Manufacturing, Media and Entertainment, Technology, Transportation, and Work
- Urban planning initiatives



META-ECONOMY

3RD YEAR ON THE LIST



The world's first meta bank branch, JP Morgan

QUICK TAKE

With all the hype it's easy to forget that the **Metaverse**, as well as all of our other digital and virtual worlds, are all extensions and reflections of the real world.

They are also economies in themselves but often without the physical constraints or limits of the physical world such as experiences, space, and even time. The result of which is that many people overlook the fact that in time these economies, the Meta-Economy, could dwarf today's reality based economy. And this alone makes this trend incredibly interesting.

Data sources: Bloomberg, Goldman Sachs, JP Morgan, Morgan Stanley, and various.

IMPACT

Increasingly the term Meta-Economy is being used as a catch all phrase for all of the new economies that exist in the digital and virtual worlds - in all their forms and formats.

When it comes to the Metaverse alone the size of the opportunity that analysts are putting forwards varies wildly, with organisations such as Bloomberg labelling it as the "next big technology platform" and saying that by 2024 it'll be an \$800 Bn market, and JP Morgan suggesting it will "infiltrate every sector" and be worth over \$1 Tr.

Looking at the entire Meta-Economy though, which also includes the related "non Metaverse" markets, Goldman Sachs and Morgan Stanley both estimate the entire Meta-Economy could exceed \$8 Tr. Putting this into context the Indian government alone also sees **Web 3.0**, which can also be included in Meta-Economy statistics, as a \$1.1 Tr opportunity for just India let alone other countries. And all these figures are before we extrapolate out the economic impact of **Crypto Cities**, **Non-Fungible Tokens (NFTs)**, **Robo-Customers**, **Tokenisation**, and many other trends.

EXAMPLES

With analysts expecting four primary sectors, namely the so called "Meta" platforms such as Meta, Roblox, and Take Two, the entertainment industry, the Metaverse itself, and Web 3.0, to lead the charge and capture a lot of the early value of this trend it's little surprise that that's where a lot of the activity is.

At the moment some of the most notable examples of organisations embracing this trend include Roblox who are actively investing in what they call the **Creator Economy** with initiatives such as their Builders Club and who now have over 200 Million active monthly users and who play an increasingly significant role in more than two thirds of children's "digital lives."

Then, of course, we have Meta who so far have burned through over \$10 Bn in cash to build the foundations of the Meta-Economy, including the Metaverse as well as Web 3.0, and thereby create a vertical stack that helps them "own the future." We also even have the likes of JP Morgan who created the world's first meta bank branch which they hope will ultimately help position themselves as the prime lender of choice for all your future Meta-Economy lending needs.

ACT NOW

With the digital and virtual economies now increasing in value at an almost exponential rate, which will only accelerate as complimentary trends such as **5G**, **Internet of Things (IoT)**, and **Satellite Internet** bring more people and things online, it's clear that a lot of people are excited about the opportunity the Meta-Economy presents. However, that said organisations must remember that this is a marathon and not a sprint, and that many of the foundational technologies that underpin this trend are still relatively early stage and far from mass adoption.

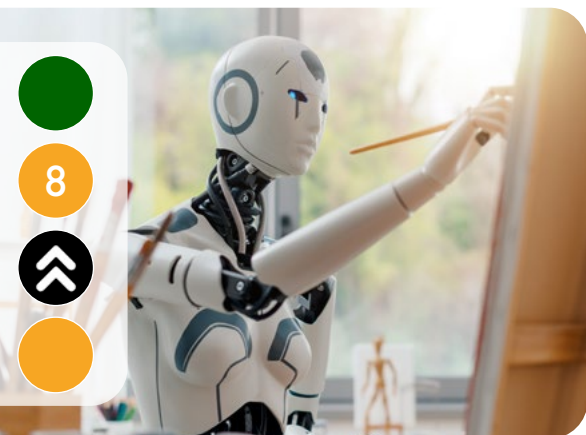
EXPLORE:

- Best practises and case studies
- Business and impact assessments
- Emerging technologies and technology roadmaps
- Future of Communications, Financial Services, Media and Entertainment, Retail, and Work
- New business and operating models



PRICE COLLAPSE

1ST YEAR ON THE LIST



QUICK TAKE

As we continue to see certain **General Purpose Technologies** such as **Artificial Intelligence (AI)**, **Creative Machines**, and **Robotics** stoke **Job Automation** fears one of the major and often and less spoken about side effects is Price Collapse which, as the name suggests, is the partial or total collapse in the price of performing certain Blue or White Collar jobs, tasks and or skills, which then affects the cost of the outputs. In extreme cases this trend can lead to **Industry Collapse**, with an example today being the use of AI and **Creative Machines** to reduce content production costs by over 97%.

IMPACT

While this trend is sometimes spoken about it's often marginalised in conversations because unless you're directly affected by it can be difficult to spot and monitor. Despite this though the impact, on individual jobs as well as on entire industries and even whole countries can be very real, and over the past decade, driven by **Geopolitical Fragmentation**, increased market volatility, and technological disruption it has become 30% to 50% more frequent according to estimates.

With multiple levels of economies affected impacts include the depression of wage growth, wage values and **Global Real Wages**, and spending power, as well as impacts on **Global Direct Tax Rates** and **Global Household Debt**, as well as **Global Public Debt** as governments spend to combat it. It can also lead to significant company and inventory devaluations, and profit collapses, and be a contributory factor in price and **Trade Wars**, and industry contraction. At a country level it contributes to currency devaluation and deflation, trade imbalances, capital flight and financial instability, drag on GDP, and be a major cause of strikes and social unrest.

EXAMPLES

While causes can be economic, societal, and or technological, or a combination, today we have many cross sector examples including the foreseeable price collapse that recently affected the German automotive industry when cheap Chinese EV imports undercut the majors by 30% or more and caused them to undertake massive 'Make or break' restructuring exercises. Today, other examples include AI generated content that's collapsing content creation costs by 97% with freelance writers seeing revenues decline by 40% with sector based job losses of 20%. For graphic designers this is 30% and 15%, and for audio producers, and videographers and editors, this is 25% and 15% respectively. And even software developers aren't immune with 30% and 25% reductions respectively - and all these numbers are growing.

In 2016 the oversupply of oil due to increased US shale production and OPEC's refusal to cut output led to a 70% collapse in oil prices, wiping out \$1 Tr in revenues and saw 440,000 jobs lost. And, in 2018 **Cryptocurrencies** collapsed by 80% wiping out over \$700 Bn of market value with 1,700 Alt coins and over 40 exchanges going bankrupt.

ACT NOW

Price Collapse can have a serious impact on the prosperity and future outlook for individuals, companies, industries, and entire countries, and it can be caused by a variety of factors, some of which are difficult to predict and others which are preceded by tell tale signals. With proper forethought and careful planning though the impact of even sudden price collapse events can be de-risked albeit never entirely.

EXPLORE:

- Business and impact assessments
- Creative Destruction, Disruption, Foresight, and Innovation programs
- Emerging technology and technology roadmaps
- Future of Education and Work
- Industry diversification
- Market, risk, and trend analysis
- Political and regulation monitoring
- Re-training programs



RAPID URBANISATION

3RD YEAR ON THE LIST



QUICK TAKE

Today more than 55% of the world's population lives in cities, and over 1.5 Million people are added to the global urban population every week with around 90% of this growth taking place in African and Asian countries.

While this puts huge demands on the climate and the environment, as well as urban infrastructure, jobs, and services, it also presents significant opportunities with vast potential for emerging cities to act as powerful and inclusive development tools which, in some cases, can be funded through **Public Wealth** initiatives.

IMPACT

Cities have always been the drivers of economic growth and productivity, with 85% of global GDP being generated in them, and while rapid urbanisation can cause issues as local infrastructure, jobs, and services strain to meet the needs of their inhabitants, it is possible for governments to capture "Urban Dividends" that creates jobs, increases productivity, reduces infrastructure costs and environmental impact, supports new enterprise and shares this widely.

However, while these dividends are attractive they are not guaranteed and poor urban infrastructure especially could rapidly derail the pace at which cities grow and prosper. The overall growth in urban populations also means that in the next 10 years alone cities including Beijing, London, New York, and Shanghai alone will need to invest over \$10 Trillion in infrastructure.

By 2050 it is estimated that over 68% of the world's population will live in cities with rural populations reaching their peak in the next few years, and the number of **Megacities**, those with more than 10 Million people, has more than doubled in two decades to 37, with many more on the horizon.

EXAMPLES

The global urban population has grown from 751 Million in 1950 to over 4.2 Billion in 2018, with the most urbanised regions being North America at 82%, LATAM at 81%, Europe 74%, and Oceania 68%. And in general all these numbers are set to increase in the years ahead.

Dubai is a prime example of a city whose leaders identified a physical gap in the world map and made its mark. Sheikh Mohammed bin Rashid Al Maktoum and his advisors saw the potential in a role for a modern tier one hub city connecting East and West capturing the age of global travel that was made possible by the extended range of modern aircraft.

And while there are many examples of cities that are rapidly expanding, including Delhi, Shanghai, Dhaka, and Lagos, perhaps one of the most ambitious future city projects to watch is Neom in Saudi Arabia, a \$500 Billion automated and car-less **Smart Cities** gigaproject which aims to be the model for future city development and be home to anywhere between 1 Million and 15 Million people.

ACT NOW

With the global population set to increase significantly in the future the rate of urbanisation is going to accelerate. Developed intelligently and with future proof strategies cities can be a powerful enabler for human collaboration and GDP growth, but left to their own devices the negative consequences of unplanned urban sprawl can have the opposite effect.

EXPLORE:

- Emerging technologies and technology roadmaps
- Future of Energy, Education, Financial Services, Healthcare, Transportation, and Work
- Urban management and planning strategies
- War for investment and talent



SANCTIONS

3RD YEAR ON THE LIST



QUICK TAKE

Sanctions have been wielded as the ultimate economic weapon for decades and today they are more prevalent than ever as different countries disagree and fall out with others over unfavourable actions and behaviours. However, as we see the rise of the **Bi-Polar and Multi-Polar World** as well as trends such as **Blockchain**, **Cryptocurrencies**, **Splinternets**, and many others, it's increasingly clear that while they're still effective they're also accelerating the splitting global of standards and systems, and creating parallel ones, as autocratic and autarky systems and democratic ones diverge and separate.

Data sources: World Bank, and various.

IMPACT

Historically sanctions have been used as a the ultimate economic weapon to show disfavour and punish countries and influential individuals who have behaved in a way that is odds with the international communities expectations and interests.

Today though many states who are the subject of sanctions are as belligerent as ever, such as Iran, bolder than ever, such as Russia, and in the cases of the likes of North Korea flourishing - militarily at least.

Furthermore, cut off from global financial markets, supply chains, and other institutions and systems many of these countries, including the likes of China, are increasingly collaborating to create their own "Sanction Proof" systems and work arounds such as the development of the CIPs payment network which disintermediates SWIFT, ratcheting up the **Global Reseve Currency Wars** and **Shadow Standards War**, embracing **Selective Decoupling**, and all that's before we discuss the weaponisation of trends such as **Ransomware** to covertly fund economies, and the use of **PsyOps** to sow division in their foes.

EXAMPLES

As the number of examples of this trend increase we're also seeing a rise in the number of ways to diminish and eliminate its impact - the latter of which will only increase in time as **Exponential Technologies** help countries circumvent their impact by leveraging new AgTech and FinTech trends, as well as the likes of **Additive Manufacturing** and **Artificial Intelligence** (AI) to develop and print medicines on demand, and many others.

North Korea, for example, an autarky cut off from the majority of the world, asides from just a handful of countries such as China, seems to have embraced cyber attacks and the use of Cryptocurrencies and Ransomware to fund its ambitions - especially its military ones. Then we have Iran, whose country has arguably been crushed by crippling sanctions on oil exports and the provision of basic staples including food and medicines because of its pursuit of its nuclear program, among other reasons. And then there's Russia, whose banks were not only disconnected from the SWIFT payment network - itself a nuclear option - for invading Ukraine, but was also on the end of some of the world's most swingeing sanctions.

ACT NOW

While sanctions are seen by many as still being an effective economic weapon in time their impact will be increasingly diminished until we reach a point where they are no longer a weapon but a blunt bureaucratic instrument. As such governments should think carefully about their use, explore **Soft Power Plays**, and find new ways to coerce and influence countries who behave at odds with humanitarian and international interests.

EXPLORE:

- Business and impact assessments
- Emerging technologies and technology trends
- Future of Agriculture, Communications, Financial Services, Government, Healthcare, Manufacturing, Technology, and the Workforce
- Policy and regulation reform
- Selective decoupling



SOLOPRENEURS

3RD YEAR ON THE LIST



QUICK TAKE

An unfamiliar term for some, this trend is increasingly front of mind for many governments, and for good reason. Solopreneur is a term used to describe one person businesses, and increasingly they make up the majority of entrepreneurs and start ups globally.

What's most interesting about this trend is its interplay with the **Diversity and Inclusion** and **Wealth Inequality** trends, with the data showing that women solopreneurs are the most numerous globally, and that there are more male solopreneurs, by number, in richer countries.

Data sources: Forbes, and various.

IMPACT

The increasing interest and reporting of so called non-employer firms as contributors to national economies is significant, and it turns out that solopreneurs are everywhere with 81% of small businesses in the US alone being run by solopreneurs who now represent over 17% of the US workforce and whose companies generate on average \$47,000 compared with \$6 Million for employer firms.

Furthermore, with the number of non-employer firms increasing by 58% since 1997, from 15.4 Million to 24.3 Million today, while the number of employer firms has only increased by 6%, this means that many governments are now having re-think their definitions of entrepreneurship and adapt their policies to be more supportive - with the economic benefits that brings.

Globally women are more likely to own sole proprietorships than men with women owning 37.6% and men 27.8%, but gender representation varies by country. In the US 32% are men versus 29% for women, and in MENA 20% are women and just 12.4% are men, which then highlights differences between cultures and support structures.

EXAMPLES

Only five countries are considered to have gender parity in solopreneurship, they are Brazil, Estonia, Latvia, the Republic of Korea and Slavonia. And of all of these in Brazil, which leads the world in self-employment, women solopreneurs account for 83% of all of the country's entrepreneurial activity, and men account for 81%. Brazil is then followed by Ecuador, where those rates are 63% and 52% respectively.

Another interesting data point is that over a third of all these businesses, globally, are run by minorities.

While solopreneurs are by definition one person businesses and don't employ people the fact shouldn't be lost on you that they do still, nevertheless, create jobs that support the economy.

From the interior designer who works alone to the person who makes and sells elegant pottery products, to the caterer who arranges food for parties, there are many examples of solopreneurs. And you probably know some yourself, maybe you are one ...

ACT NOW

Not to be confused with the **Gig Economy** this trend is increasingly becoming a force to be reckoned with, especially as the cost of starting, operating, and scaling a global business, even as a solopreneur, falls by thousands fold. As a result governments should find a way to leverage this trend and find new ways to support it.

EXPLORE:

- Emerging technologies and technology roadmaps
- Future of Government, and Work
- New business and operating models
- Policy and regulation reform



SUSTAINABLE ECONOMIES

3RD YEAR ON THE LIST



QUICK TAKE

Over the centuries the pursuit of economic growth has often come at the expense of the natural environment, and we are now literally reaping the whirlwind. And, as trends such as **Climate Change** and **Resource Scarcity** intensify, it is clear that this historic progress at all costs strategy is unsustainable.

As a result more governments and organisations around the world are now trying to find fresh ways to grow their economic top lines but do it in balance and harmony with nature.

IMPACT

The impact of the policy of economic growth at all costs is clear for everyone to see today - we are nearing runaway Climate Change and crossing climate tipping points, with all the problems those entail. And, at the rate of current resource consumption we need two Earths and will run out of essential resources that include everything from fish and wood, to cobalt and lithium within the next 100 years.

The upshot of all this is that while we can stay on our current path on the one hand economies will likely still grow in line with **Global GDP Growth**, but on the other there will come a point where all these gains have to be spent building cities that can resist **Extreme Weather** events, larger flood and sea defences, and that they'll have to spend more on importing food and water as droughts become more severe. Etc. And that's all before we discuss the money they will have to spend on managing global and societal discomfort and stress which, in some cases, could lead to outright war.

Today it is estimated that it will cost over \$92 Trillion to "solve" Climate Change alone - so it would be better if it didn't need fixing in the first place ...

EXAMPLES

In general Sustainable Economies are those that provide the greatest amount of general well-being for the least amount of resource use and environmental harm, and at the moment it appears to be Europe who are leading the "green" revolution via a number of initiatives that include the post pandemic EU Green Deal and **Net Zero Pledges**.

Today the EU represents over 15% of global GDP and transitioning their economy to a sustainable one will be no easy task which is why they have developed several policy pillars to help them achieve it.

These pillars include: a zero pollution pledge, accelerating the shift to sustainable and smart energy and mobility systems, development of a sustainable food system, sustainable building and renovation programs, mobilising industry to create a **Circular Economy**, **Polluters Pay** policies, net zero pledges, preserving and restoring bio-diversity and ecosystems, and supplying clean, affordable and secure energy. All of which are then underpinned by trillions of dollars worth of new green **ESG** financing initiatives.

ACT NOW

Promoting an economic system that degrades and rapes the planet is in noone's favour. However, while it will cost huge sums of moneys creating sustainable economies not only could it be good business, as governments and organisations find new ways to profit from solving some of the worlds greatest challenges, but it could also mean governments and tax payers don't have to spend huge sums of money on damage limitation measures.

EXPLORE:

- Emerging technologies and technology roadmaps
- Circular Economy
- Financing initiatives
- Future of Agriculture, Energy, Manufacturing, Smart Cities, Sustainability, Transport, Work and the Workplace
- Partner ecosystems and solutions



TRADE WARS

3RD YEAR ON THE LIST



QUICK TAKE

Trade disputes are common place. Trade wars though are an entirely different matter, and they are increasing in frequency as various countries and governments flex their trade muscles.

However, in spite this almost everyone sees Trade Wars, which inevitably increase the amount of **Protectionism**, as Lose-Lose with the general belief being that an increase in global protectionism of this form would lead to a permanent loss of 4% GDP for the EU and 3% for the US.

IMPACT

Trade wars have a variety of far ranging impacts on everything from GDP growth, jobs, profits, share prices, and supply chains, to trade volumes, wages, and much more.

It's estimated that the 2019 China-US trade war, as well as Europe and other countries who got sucked into it, cost the US economy nearly 300,000 jobs and between 0.3% to 0.7% of GDP with organisations loosing at least \$1.7 Trillion in the price of their stocks as a result of US tariffs imposed on imports from China. Numerous studies have also shown that US organisations primarily paid for the tariffs, with the cost estimated at \$46 Billion, by accepting lower profit margins, cutting wages and jobs for US workers, deferrals of potential wage hikes and expansions, and raised prices for US consumers.

As for the Chinese the trade war caused a 25% export loss, inflicting a \$35 Billion blow to Chinese exports, and many organisations, including Chinese companies, have since looked to improve their long term supply chain resilience by building factories and distribution centers, and sourcing goods, outside of China.

EXAMPLES

Undoubtedly the greatest example of a trade war in recent times was the China-US trade war which caused chaos and concern around the world as the world's two largest economies traded blows and implemented tariffs of between 10% and 25% on \$550 Billion worth of Chinese goods and \$185 Billion of US goods - with neither side being able to claim any kind of victory, political, pyrrhic, or otherwise.

While the trade war had a significant economic impact, seemingly more on the US than China, it undermined long term confidence in both countries with organisations all around the world doing their utmost to source goods from alternative countries and re-route global supply chains.

As we enter a period of transition, and look towards a **Bi-Polar and Multi-Polar World**, it is not inconceivable to think that we will see a repeat of at least some of these activities again in the future.

ACT NOW

Trade wars are almost always Lose-Lose which is likely why we so few of them, even though the number of trade wars has increased in recent years, and the general lesson to learn is avoid them if you can. Unless, of course, you can guarantee you can win ...

EXPLORE:

- Free trade policies
- Future of Government
- Strong global institutions
- Unilateral global accords and coordinated global action



UNLOCKING PUBLIC WEALTH

3RD YEAR ON THE LIST



QUICK TAKE

Every government has publicly owned real and operational assets that have a market value which, under the right circumstances, can be financially unlocked and benefited from. In the main though the majority of governments don't have a record of all their assets or their value which, in some cases, can run into the billions or even trillions of dollars - which hampers their ability to develop or realise their value. Ultimately public wealth initiatives give governments and public authorities a way to build and repair infrastructure and develop new services without having to raise taxes.

Data sources: Dettler, IMF, OECD, UCL, and various.

IMPACT

Generally Public Wealth Funds (PWFs), which can include National Wealth Funds, Public Climate Funds, Public Venture Capital Funds, Regional Development Funds, and Urban Wealth Funds, are seen by governments as a way to support the economic recovery and sustainable growth of local communities, regions, and countries. And in many respects they are seen as an idea whose time has come of age because not only can they be used to "level up" regional inequalities, but they can also be used to "build back better" after the global pandemic.

In general it is believed that the better financial management of public assets could add up to 3% of GDP in public revenues which could then be used to benefit society as a whole.

Today, the sum of public assets owned by governments is an estimated \$75 Trillion which is twice as big as total pension savings and ten times as big as the holdings of sovereign wealth funds, and some argue that if they were properly managed governments could raise \$2.7 Trillion from them which is more than the world's annual infrastructure spending.

EXAMPLES

There are three simple steps that governments and other public authorities can take to unlock and maximise the benefits and returns from their public assets. The first is to catalogue and value them, the second is to create a Public Wealth Fund holding company, and thirdly - and arguably the most important - is to develop the assets not privatise them. Only by doing all three can officials realise the benefits of this trend and use public assets for public good.

PWFs can be short or long term, and some of the best examples include those from Hong Kong, Singapore, South Korea, the UK, and the USA where they've been used to develop everything from railways and roads to ports and beyond. In Hong Kong the Mass Transit Railway (MTR), and in London the London Underground, both develop mixed real estate including office, residential, and retail space, to fund future construction projects. In both cases their strategy has been to develop the land in connection with the build out of infrastructure and thereby not only fund their projects without using taxes, but also contribute to the public purse through the dividends of the company.

ACT NOW

Governments and public authorities all own a huge amount of real and operational assets which, if managed correctly, can be used to unlock new value and fund future infrastructure projects and services without the need to raise taxes. As a result they can be very attractive and lucrative investment vehicles.

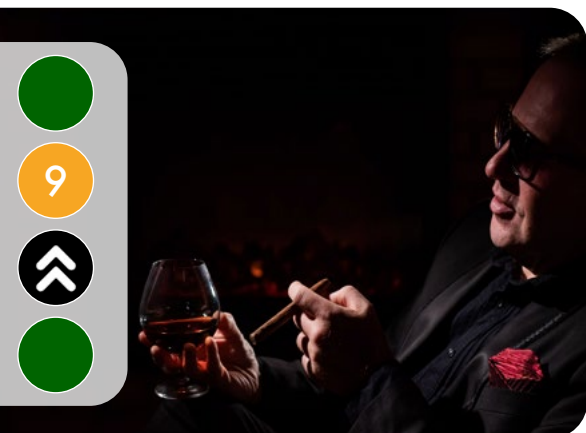
EXPLORE:

- Asset mapping, measuring, monitoring, and reporting
- Future of Financial Services, Government, and Infrastructure
- Public Wealth Funds



WEALTH INEQUALITY

3RD YEAR ON THE LIST



QUICK TAKE

While global GDP has grown steadily for centuries today the world's richest 1% have twice the wealth of 6.9 billion people, and the world's 20 richest men have more wealth than all the women in Africa. The world's first trillionaire will also likely emerge within our lifetimes.

Furthermore, while over half the world's population lives on less than \$5.50 a day, the world's billionaires increased their net worth by over \$3.9tn during the pandemic, to a total of \$11.95tn, at the same time that global workers combined earnings fell by \$3.7tn.

IMPACT

Irrespective of where you live or the economic system you live under there is no getting away from the fact that in the majority of cases you need money to survive, let alone thrive, and if you don't have money, or don't have enough of it then your future prospects, as well as your future health and wellness are all in jeopardy. A prime example of the impact of this is the fact that each year over 100 million people are pushed into extreme poverty due to healthcare costs and struggle with basic food provision.

Made possible by the rise of the connected society and multi-sided platform businesses that make it easier than ever before to create, sell, and distribute all manner of products globally at low cost wealth inequality is surging.

It also affects individuals ability to invest, obtain credit and bear risk, creates undue stress and societal divisions, and also has a variety of under-explored impacts as well on accentuated and uneven power and status distributions, disproportional representation, self-image and self-worth, social cohesion, and is detrimental to the ability of countries to develop and prosper.

EXAMPLES

Wealth inequality is an issue for every country and every society, but overall it is the enormity of the figures that make your eyes pop.

While the wealth gap, interestingly, is narrowing between countries, the absolute gap between average individual incomes is widening for more than 70% of the global population with the rising inequality benefiting the wealthiest.

While lots of factors accentuate wealth inequality, including differences in education provision, human rights, internet connectivity, and the continued automation and digitisation of industries and jobs, researchers have found that climate change is also accelerating the trend with the gap between the richest and poorest 10% of the global population is 25% larger than it would be in a world without global warming.

Additionally, on the tax front top income tax rates have fallen in all countries, which has made tax systems less progressive than they could, or should be, with the top rates falling from 66% in 1981 to 43% in 2018. And there's much more data we could lay bare ...

ACT NOW

While leaders, politicians, and the world's richest individuals discuss solving this trend they're making little or no headway - a fact that's starkly represented in whatever figures you choose to pay attention to.

EXPLORE:

- Access to, and the development of, alternative job markets
- Access to digital, educational, and technology initiatives
- Corporate and government led diversity, education, equality, ESG, health, mobility, and monetary policies
- Decentralised work, gig economy, and telepresence technologies
- Distributed Autonomous Organisations and blockchain based Co-Operative company structures
- Future of Work

Notes:

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An astronaut in a white spacesuit is floating in space, with Earth's clouds visible below and a starry galaxy in the background. The astronaut's helmet reflects the Earth. The text "THIS IS NOT THE END . EXPLORE MORE ." is overlaid on the top left.

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