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Introduction to Theme-Based Investing

NOVEMBER 2023

Introduction

Investing is a delicate balancing act. On the one hand, as relatively conservative investors we want to protect your capital by allocating to defensive assets. On the other, we strive to achieve long-term growth in your portfolio's value by investing in higher-risk, return-seeking opportunities.

Based on our long experience in managing money across a variety of market conditions, we know that the best investments often arise from a small number of overarching mega-trends that drive economies and markets forward.

That's why we have identified two of the most powerful trends shaping the investment landscape today: the debt supercycle and a technological revolution. These two trends are creating substantial opportunities for investors across a range of sectors, from sustainable investing and digital assets to biotechnology and beyond.

A debt supercycle is a critical concept that we believe every investor needs to understand. It describes the cycle of borrowing, lending, and ultimately default. The current debt supercycle began in the 1980s and has birthed the unprecedented levels of global debt we see today.

But what does this mean for investors and how can we take advantage of this unique moment in history?

Let's dive in and find out.

The debt supercycle

Debt supercycles are not a new concept, but they have become more pervasive in recent times and we are in the midst of an extremely large one right now.

Initially, debt accumulation tends to drive economic growth and raise prosperity, as borrowed funds are used productively, encouraging more activity and further borrowing. Financial markets also benefit as a new cycle gets underway with asset prices rising on the back of supportive liquidity conditions and improving growth prospects.

However, as leverage accumulates, debt servicing costs increase, diverting funds away from growth-enhancing consumption and investment. Economies subsequently weaken and recessions emerge, ultimately leading to defaults and financial crises.

The ensuing contraction demands a policy response from Governments and Central Banks. Do they allow for widespread defaults and almost certainly elicit a more severe economic downturn or do they bailout overstretched debtors by unleashing bundles of fiscal and monetary support?

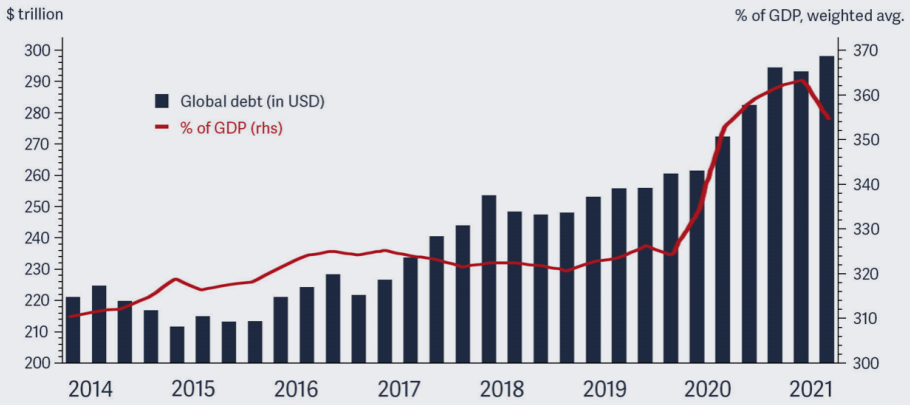
Policymakers increasingly choose the latter, favouring stimulative rescue packages that counter economic and market weakness near-term, but typically increase the severity of the ultimate debt denouement. Constant intervention prevents economies and markets from functioning freely and usually devalues the home currency, undermining people's ability to save and to spend.

The current debt supercycle, which began over 40 years ago, is a case in point.

By the early 1980s, the Federal Reserve was able to declare victory after a decade of fighting double-digit US inflation. It took multiple severe recessions and near-20% interest rates to get there, but the end result was a more resilient economy with stable prices, decent growth prospects and, most significantly of all, limited debt use. In 1980, the amount of outstanding global debt totaled just U$11trn, equivalent to 'only' 120% of GDP (spoiler alert: that's a fraction of what it is today).

Throughout the rest of the decade (and well into the 1990s) debt use remained contained; the economic scars of the 1970s lingered, perturbing borrowers from over-extending themselves. But ever since, the amount of leverage has grown exponentially with China's debt-fueled growth model, the Great Financial Crisis and the unprecedented fiscal spending deployed to combat the COVID-19 pandemic all contributing to a global debt-load that now exceeds U$300trn. This equates to a staggering (and record-breaking) 350% of GDP, meaning every U$1 of economic output in the world requires U$3.49 of debt use. This ratio was closer to a more sustainable 1:1 just a few decades ago.

Global debt is fast approaching £300 trillion



Source: IIF, BIS, IMF, National sources

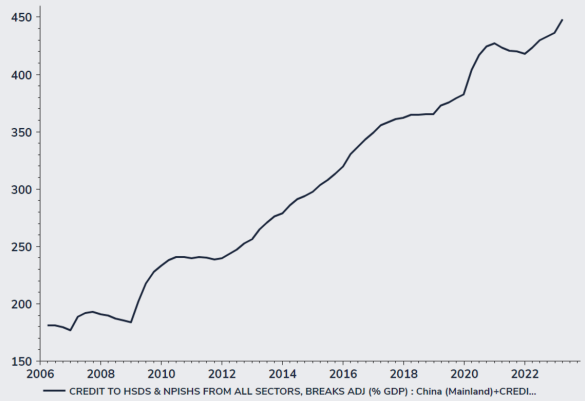
The 2008 banking crisis was a watershed moment for the current debt supercycle because it forced policymakers from Washington to Beijing (and everywhere in between) to show their hand. That was the moment they could have let the financial system cleanse itself by allowing the overstretched entities to fail. It would have caused huge economic pain for millions across the world, but the debts would have been right-sized, strengthening the economy's foundations for the longer-term.

But as the crisis intensified and a deflationary debt-bust loomed in late summer 2008, politicians and Central Banks everywhere proved they would do whatever it takes to prevent disorderly defaults and economic unrest. Policy support was deployed on a gargantuan scale, birthing a framework that has been used multiple times ever since, all with the ultimate goal of deferring the supercycle "endgame".

Let's analyse this a bit more to see how these events unfolded and where it leaves us today....

China has played a major role in this supercycle. Over the past 20 years, it has experienced rapid economic growth, funded mostly by a near trebling of its debt/GDP ratio...

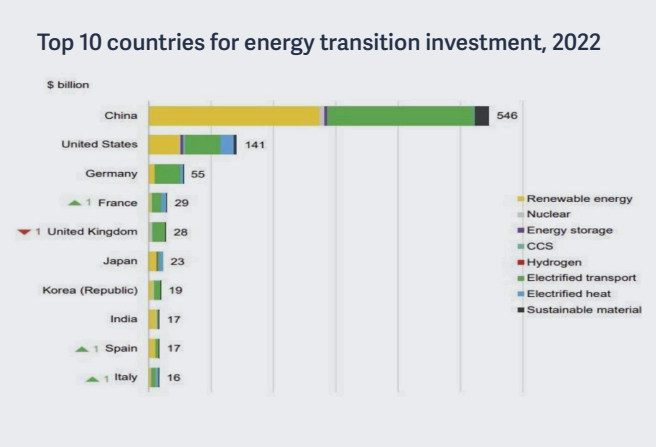
China Total Debt to GDP/% (2006-2022)



Source: LSEG Datastream

The first big borrowing spike began in late 2008 when the Chinese government deployed a massive debt-funded stimulus (equivalent to 13% of GDP) to rescue an economy crippled by the global financial crisis. This immediately boosted activity in the region and beyond, sparking a multi-year recovery, but the hangover of such debt-fueled spending on physical infrastructure and particularly the property sector lingers to this day, meaning the economy remains overly-reliant on fiscal support.

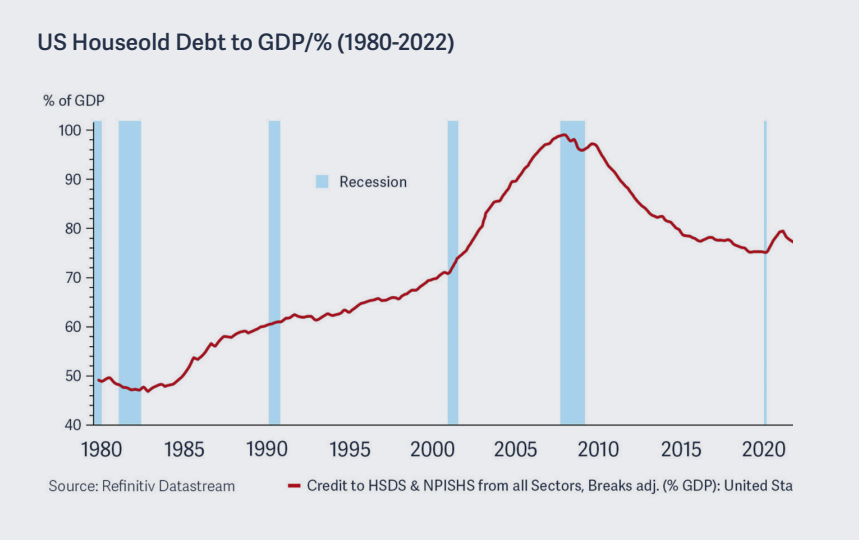
Nowadays, though, state-backed spending is increasingly being directed towards cutting-edge areas like quantum computing, green energy and space rather than railways, airports and roads. In 2022, China invested (by far) the most into energy transitions projects as the chart below shows. The only problem is it borrowed even more money to do so...



Source: World Economic Forum

China is not the only major economy facing a massive debt crunch. The US began using borrowed money prolifically in the 1990s and especially after the 9/11 terrorist attacks when the Bush administration and the Greenspan Fed both took steps to stimulate demand. The result was an ultra-supportive policy backdrop that lasted for years and ultimately drove the housing boom (then bust).

In 2001, the outstanding value of US mortgages was just U$8trn, but the combination of low interest rates, rising house prices and super-easy access to credit (think subprime loans) took this number to almost U$15trn over the next 6 years. US household debt as a portion of GDP spiked as a result, from 70% around the start to the century to a suffocating 100% by 2007.

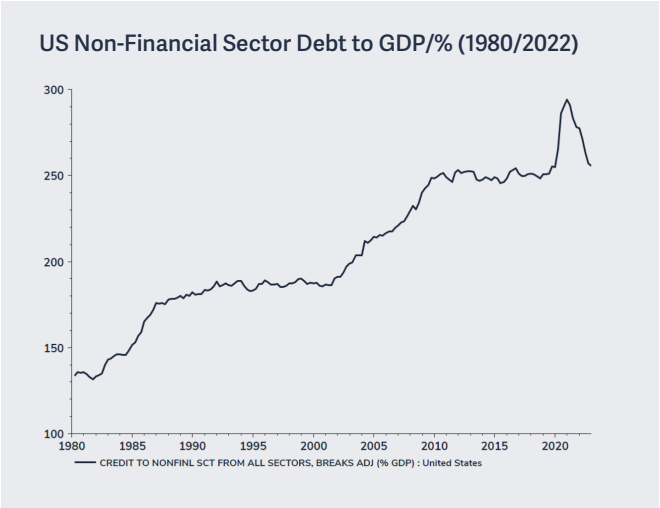


Source: Refinitiv Datastream

Faced with a seemingly strong economy, the Fed felt emboldened to raise interest rates during the mid-2000s, but this gradually sucked the air out of the housing bubble; rising borrowing costs tempered the demand for homes, eventually causing property prices to contract for the first time in decades. The boom then quickly turned to bust, sparking a banking crisis and the worst economic downturn since the 1930s. The policy response was huge, but it prevented an economic collapse and, as the dust settled, a decade-long process of de-leveraging in the US household sector got underway; the total value of US household debt as a percentage of US economic output is now far lower than it was at the 2008 peak, although still well above the pre-2000 norm.

On a standalone basis, deleveraging is bad news for the economy; repaying debts tends to leave consumers with less disposable income to spend on goods and services. But this impact was more than offset by the fact overall debt use has ballooned since the 2008 Great Financial Crisis.

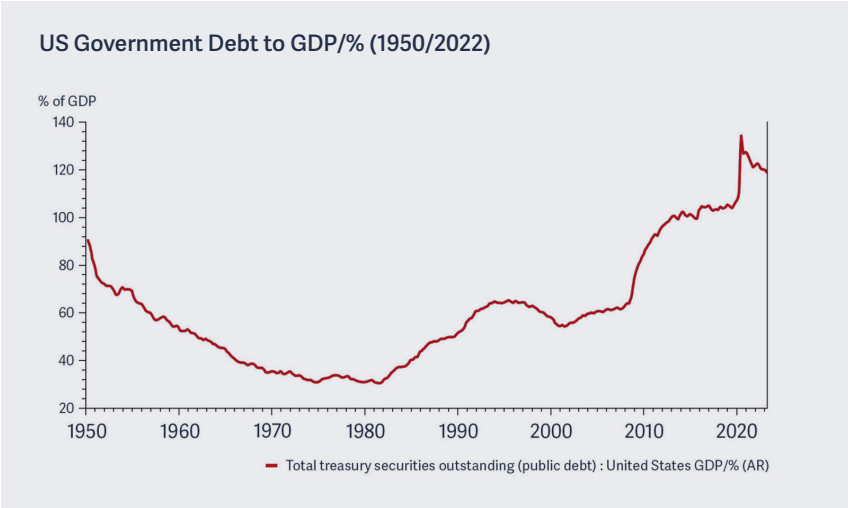
For example, the non-financial corporate sector has taken advantage of near-zero interest rates and abundant liquidity to leverage itself up to a record peak around 300% of GDP.



Source: LSEG Datastream

The amount of US corporate debt in issuance has risen from U$3trn to U$9trn in the past 15 years alone.

Whilst the government debt burden continues to rise exponentially, from just 30% in 1980 to a mountainous 135% in early 2020.



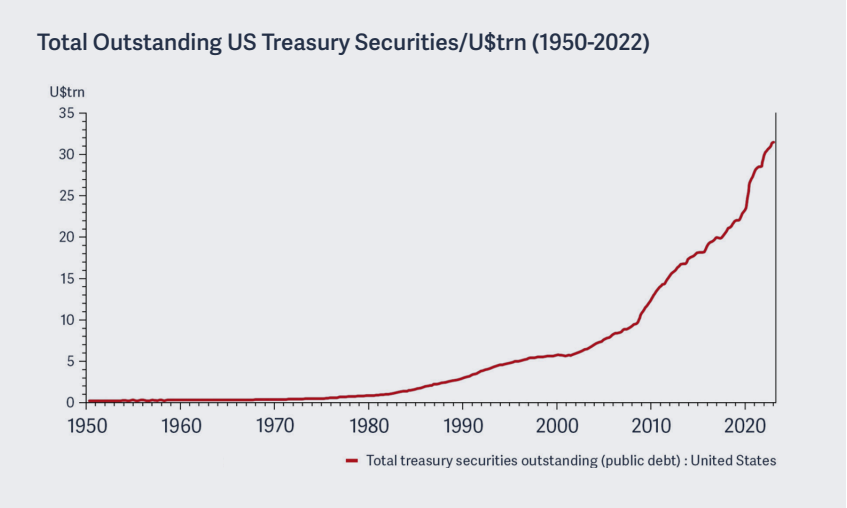
Source: Refinitiv Datastream

These government borrowing figures are unprecedented outside of wartime, but with US households and businesses already maxed out a debt "domino effect" has emerged.

First households are forced to deleverage (as they did post-2008) and then the corporate sector follows suit (as they have begun to do since the pandemic), but this leaves the government as the only player left with deep enough pockets to drive growth whenever economic or market troubles unfold.

In theory, most governments strive for sound, balanced public finances at all times but, nowadays, few are willing to do so. Increasingly, politicians from both the left and right find it easier (maybe even necessary?) to support the economy at the slightest hint of weakness; it helps prevent major downturns and mass unemployment which, in turn, usually helps to secure votes and re-election.

But the fiscal spending that's deployed by politicians in response to a financial crisis, a global pandemic or simply an economic soft patch, requires more borrowing and that means more sovereign debt issuance. The chart below shows the total amount of US Treasury securities (read: government debt) outstanding over the past 70 or so years.



Source: Refinitiv Datastream

In 1980 it was just shy of U$1trn.

It hit U$10trn in 2008 (just as the financial crisis was kicking off) and then rose at a frenetic pace to U$20trn in mid-2017…before going parabolic due to the pandemic.

In March 2020, it was a little below U$24trn, but then hit U$30trn by the end of the following year as governments countered lockdowns with massive emergency spending on unemployment benefits and various business support measures. By the end of 2022, the amount of US Treasury issuance outstanding was well above U$31trn and it continues to rise…

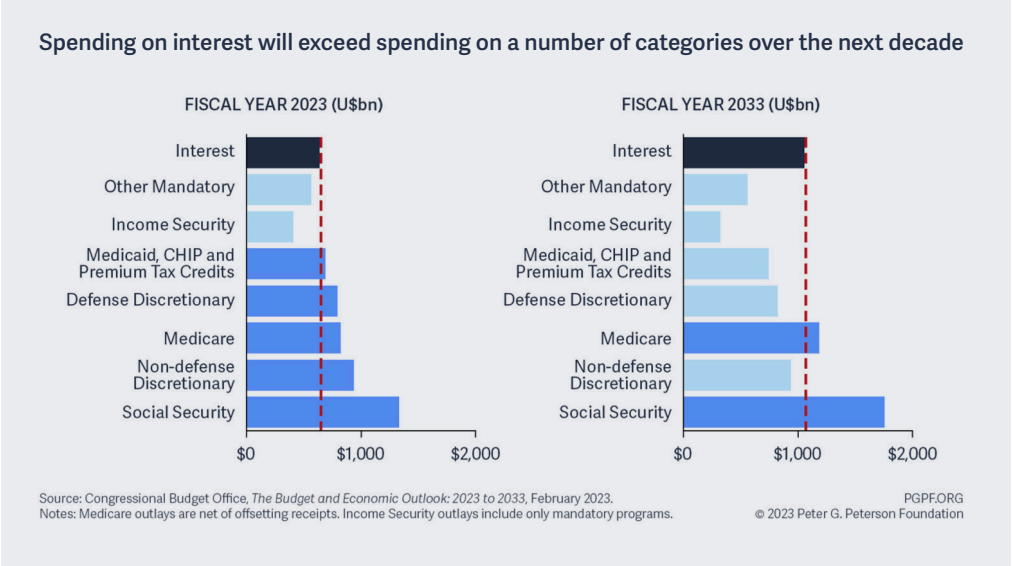
This explosion in debt use has numerous implications.

Firstly, it is making the US and global economy incredibly sensitive to any modest increase in interest rates. The 2008 financial crisis, the 2019 repo crisis (that saw parts of the interbank lending market freeze up) and, more recently, the March 2023 failure of multiple US regional banks are all ultimately the direct consequence of higher borrowing costs.

Secondly, higher debts naturally breed higher debts as the amount of money the government has to spend just of repaying the interest on its existing debts grows in tandem with the amount of debt being used.

As of April 2023, the Treasury Department says it spends a net amount of almost U$500bn per year just on interest payments, equivalent to approx. 13% of total federal spending. Both of these figures look set to rise (by a lot) over the next few years, leaving interest payments on track to become an even more dominant component of the public purse.

This means, unless the economy and tax revenues boom, the US government will likely need to borrow a lot more just to help service its existing debts. Talk about a vicious cycle…



Thirdly, none of the figures highlighted so far (as large as they are) reflect the inevitable explosion over the coming years in so-called "mandatory government spending," which covers the likes of healthcare, public sector pensions and other social security benefits. Currently, these programs collectively cost the US government around U$5trn per year, but the Congressional Budget Office (CBO) forecasts that will rise to at least U$7trn by the end of this decade (the reality will likely be a lot more).

This all means the US government will almost certainly need to spend a lot more on entitlement programs and net interest costs over the next few years. And potentially even more if a recession emerges and automatic fiscal stabilisers, (like unemployment benefits) are forced to kick in.

So government spending will likely far exceed tax revenues as we had towards 2030 and beyond.

Which makes for persistently higher fiscal deficits, even more government borrowing, rising Treasury debt issuance and someone with deep enough pockets to buy up all that debt. But with the private sector largely tapped out, that really only leaves one player large enough to fill the void.

Cue the Central Banks and the supercycle punchline...

Whether it's the US, China or any other major economy, there won't be a nasty debt default.

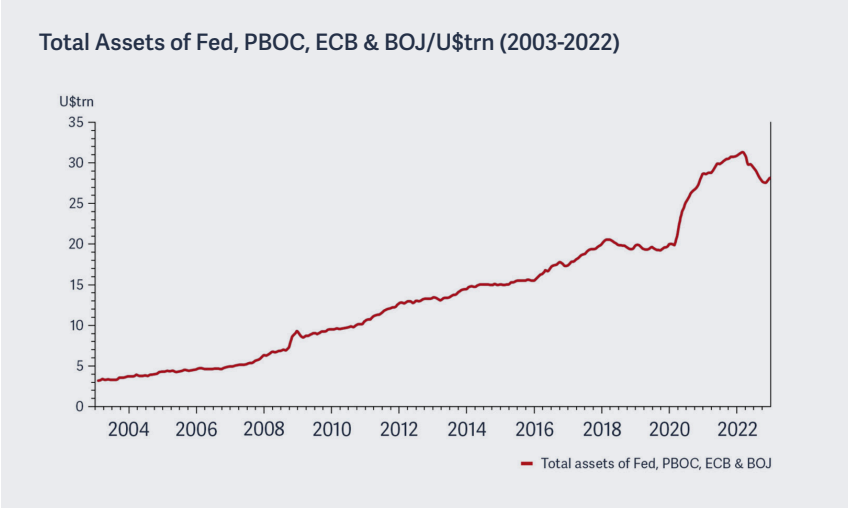
There may or may not be a sustained period of "real world" inflation like we saw in 2022 and more seriously in the 1970s.

And there will likely be a lot more economic volatility (mini up and down-swings in the business cycle) than we have become used to over the past 30-40 years.

But there will almost certainly be a sustained period a lot more government borrowing and even more Central Bank purchases of sovereign debt.

For us, that is the supercycle endgame...a prolonged multi-year (maybe multi-decade) period of outsized government support (funded by debt) that demands artificially low rates (to keep the repayment costs in check) and forces the Central Banks to own an ever-growing share of the outstanding sovereign debt (because the private sector doesn't have the capacity to buy it all up).

That effectively means debt monetisation and suggests the major Central Bank balance sheets will need to expand by a lot more over the coming years.



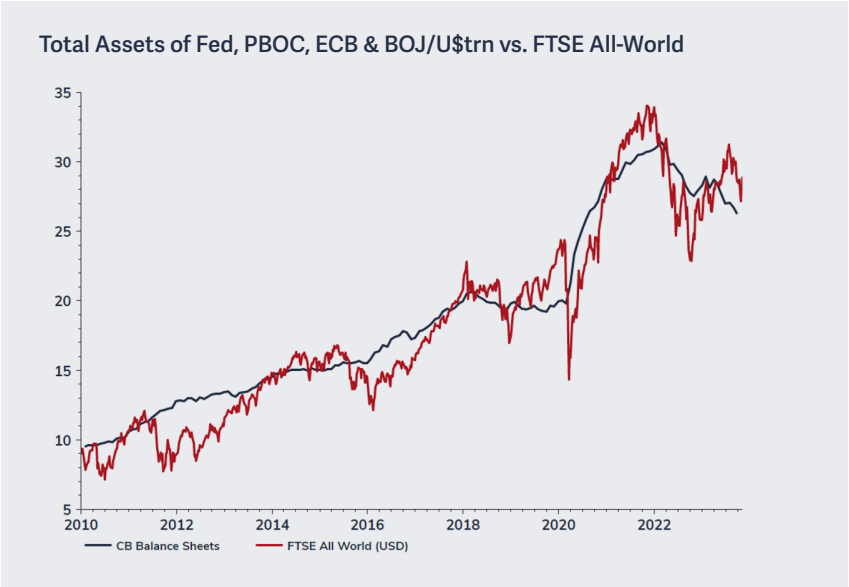
Source: Refinitiv Datastream

Technically speaking, the ultimate goal of the authorities is to anchor the cost of borrowing just below the rate of inflation (so-called "negative real yields") because this allows the value of the debt to gradually decline as a portion of overall economic output over a substantial period of time.

That is "financial repression," a policy that was deployed effectively in the aftermath of WW2 and it really the only politically-feasible solution. Which means the following general trends for many years to come:

- Unusually high fiscal deficits (often 5%+ of GDP)
- Capped and low nominal interest rates (possibly including yield-curve-control policies)
- Near-zero, likely negative, inflation-adjusted (real) yields
- And a lot more Central Bank money printing (i.e. balance sheet expansion)

More borrowing and more money printing both lead to the same outcomes.....fiat currency debasement (definitely) and asset price inflation (most likely).



Source: Refinitiv Datastream

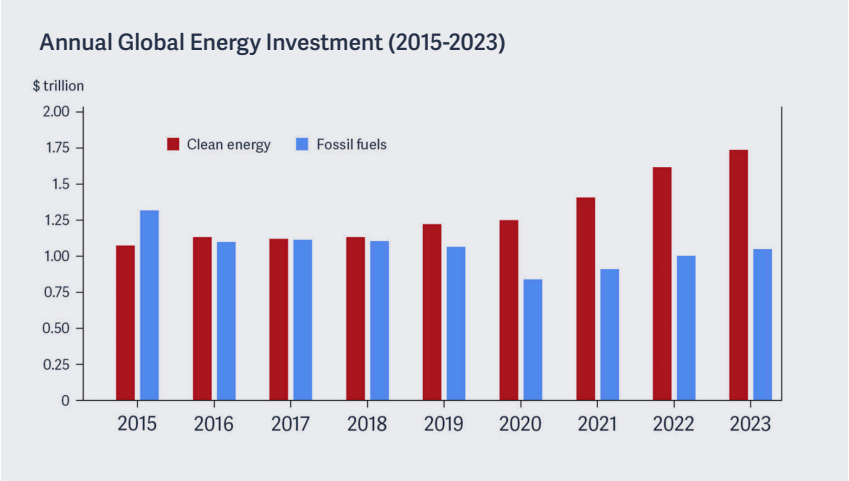
There is one other potential solution, but that requires the global economy to somehow become strong enough for long enough to grow us out of this debt morass. And that is where the technological revolution could play a vital, game-changing role...

Tech revolution

Did you know the computing power of a smartphone is exponentially stronger than the computers NASA used for the first Moon landing in 1969?

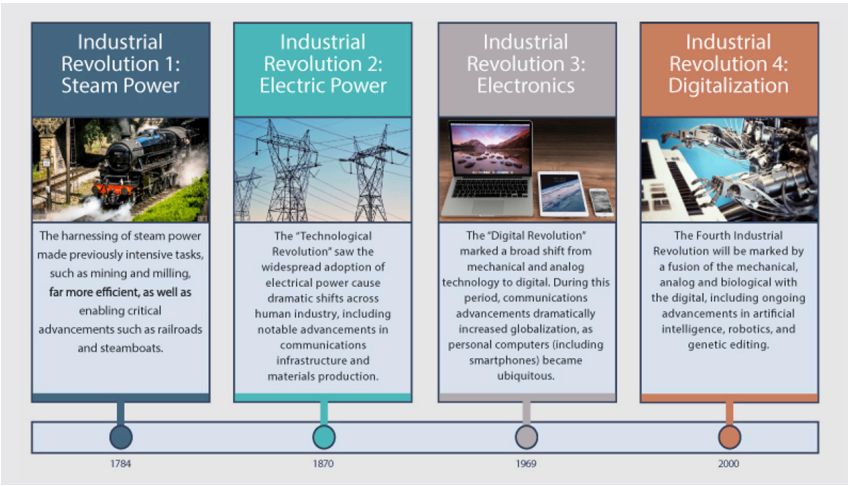
And that artificial intelligence can now accurately predict the 3D structure of proteins, spurring better drug discovery that will help to combat disease and extend lifespans.

Or that the International Energy Agency says the world needs to invest at least U$1trn per year if it is to achieve carbon neutrality by 2050?



Source: The International Energy Agency (IEA), The Wall Street Journal

This is all part of the technology boom we are living through in what is often referred to as the "4th industrial revolution" and is focused around the key concept of the digital age.



Source: The Fourth Industrial Revolution by Klaus Schwab

Aided by the cost of money being kept artificially low for so long, technological innovation is advancing at an unprecedented pace which is impacting every aspect of our lives; from healthcare to education, from how (and where) we work to what we do with our leisure time and much more.

This is not only creating an abundance of opportunities in the investment world. It also has the potential to spark a productivity boom that could help the global economy unshackle itself from its crippling debt burden.

This tech revolution is a little different than the ones that preceded it.

Usually it's just one, maybe two, dominant tech trends that come onto the scene, but now we have multiple new developments growing exponentially at the same time.

And they are combining with one another, further accelerating their growth rates and expanding their potential use cases.

An exponential technology is one that roughly doubles its power or influence, without raising its price, on a regular basis; usually around 2 years or so. The concept is associated with "Moore's Law," named after the Intel founder (Graham Moore) who, in the 1960s, noticed the number of transistors on an integrated circuit board had been doubling every 18 months, yet costs were unchanged.

This trend is still ongoing, but it's no longer just microchips that are experiencing such rapid growth. Nowadays we have:

Clean energy, powered by renewable sources like solar and wind, is revolutionising the energy landscape by providing sustainable and environmentally-friendly solutions to combat climate change.

Blockchain technology, with its decentralized and transparent nature, is transforming industries by revolutionizing data management, security, and trust in the digital age.

Biotech, at the intersection of biology and technology, is driving breakthroughs in healthcare and beyond, offering innovative solutions for disease treatment, personalized medicine, and sustainable agriculture.

Artificial Intelligence, or AI, is at the forefront of the revolution, empowering machines to learn, reason, and perform tasks, fueling advancements in automation, predictive analytics, and personalised experiences.

Robotics, combining engineering and computer science, is shaping the revolution by enabling autonomous systems and intelligent machines that enhance productivity, safety, and efficiency across industries.

Each of these areas (and many more) are witnessing rampant and pervasive adoption, but their costs are generally going down.

Another key differentiator of this particular cycle is that governments are prominent cheerleaders for many of the underlying technological trends; the likes of biotechnology and the clean energy transition are regular recipients of public funds, particularly during periods of economic stress.

Like the ironically-named U$1.2trn Inflation Reduction Act, which was passed by US Congress in 2022, and contained almost U$400bn of spending on climate change measures.

And the Chinese government's 2020 commitment to spend almost U$3trn over the remainder of this decade to achieve its 2060 carbon neutral goal (as noted above China is, by far, the world's leading investor in renewable energy).

But why does all this matter?

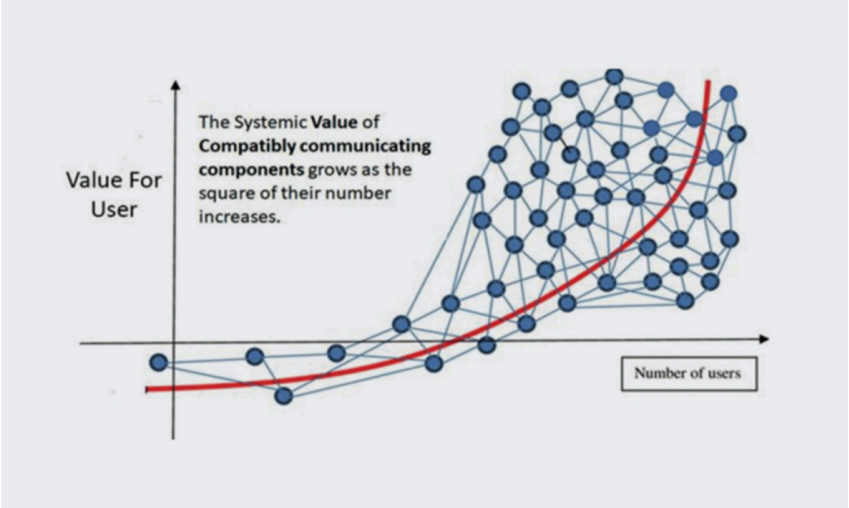
Firstly, it makes for a pretty compelling investment case.

Tech investing has a strong (and long) record of generating some seriously positive returns, albeit with many gut-wrenching bouts of volatility along the way.

Game-changing tech innovations enable firms to produce more for less (boosting profits) and they create new products and services that help spur consumer demand too.

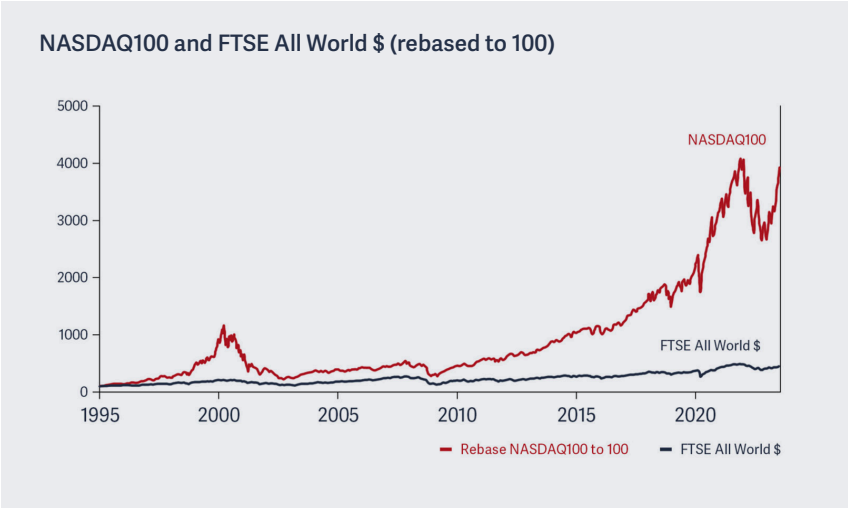
As the benefits of the technology become more widely understood, the adoption of that technology inevitably grows.

Often a "network effect" takes hold, fueling a self-reinforcing process whereby more users breed more users. And more users typically equals more value for the user.



And that usually leads to more profits for the companies that provide the tech, leading to stronger investment returns...at least over the longer-term.

Which helps to explain why the Nasdaq index has outperformed most other markets over the past 20-30 years.



Source: Refinitiv Datastream

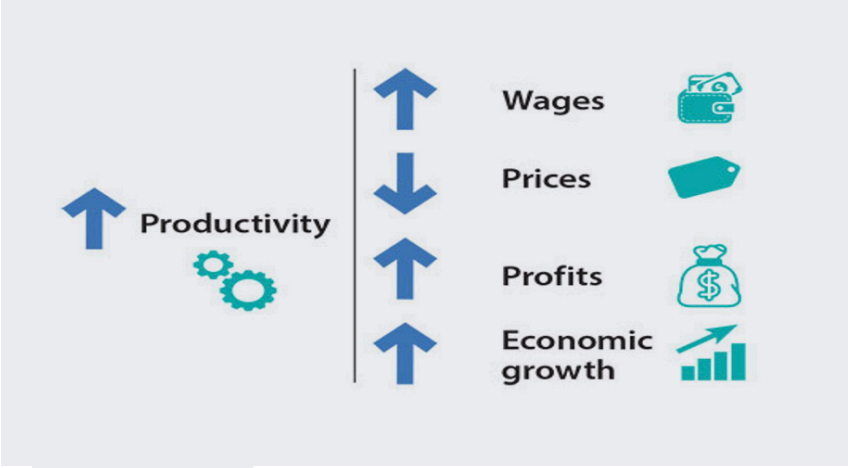
One of the best examples of the pros and cons of tech investing is Amazon's stock price, which faced a near-death experience and a 94% peak-to-trough drawdown in the early 2000s, but has since recovered to post one of the greatest gains of all time; from its 2001 low to the end of 2022 it rallied over 10,000%.

Tech booms can also have profound macroeconomic implications.

Ultimately, an economy grows either because more people join the workforce (which relies on good demographics) or if each worker produces more output (i.e. productivity gains driven by innovation).

Demographic trends are slow-moving, yet predictable and we know for sure that most major nations will see their populations shrink and age over the coming years, meaning there is little chance of economic growth rising due to an expanding workforce.

Which leaves us with productivity gains as the only viable way of driving much stronger economic growth. The jury is still out as to whether or not this technology boom can foster the level of sustained productivity gains that can help the economy grow its way out of its debt crunch, but there is a non-zero chance and, if successful, it would have some far-reaching outcomes for the investment landscape over the coming years.



Source: Reserve Bank of Australia

Scroll a little lower to find out what particular areas of the tech world interest us the most...

Investment ideas

Most, if not all, of the positions we own in client portfolios are directly related to either the debt supercycle or the tech revolution. A handful of them are beneficiaries of both.

Debt supercycle "winners":

- **Sustainable investing** – if we're right and government expenditure continues to trend higher over the coming years, we want to invest in areas where the authorities are spending the most. The clean energy transition and wider environmental causes clearly fit this bill, as do many other 'social good' initiatives.
- **Biotechnology** – in similar vein, most major governments were already spending a fortune on healthcare innovation before the COVID-19 pandemic and that trend has gone exponential ever since. A lot of money looks set to flow into this industry over the next few years, providing a strong tailwind for many biotech firms.
- **Gold & Silver (bullion and mining stocks)** – precious metals have always been huge beneficiaries of past periods of fiat currency debasement. Silver is a key component of the "green energy" drive too.
- **Digital assets** – a contentious one, but this nascent asset class appeals as a credible 'store of value' to many and provides a largely debt-free ecosystem for individuals and businesses looking for an alternative to the status quo.
- **Catastrophe insurance bonds** – the name needs a rebrand to something less daunting, but these are an alternative fixed income security that tend to offer a relatively high and diversified stream of income. If traditional cash and bond yields remain artificially suppressed, as we expect them to, we need to go hunting for yield elsewhere.

Tech revolution "winners":

- **Sustainable investing** – the 'environmental' aspect of socially-responsible (or ESG) investing is utterly dependent on the ground-breaking advancements in clean energy, resource efficiency and sustainable technologies. And without ongoing innovations in renewable energy, battery storage, smart grids and sustainable transportation there is little chance of transitioning to a low-carbon economy in future years.
- **Biotechnology** – convergence in the fields of biology, information technology and engineering has led to major progress in life sciences, paving the way for breakthroughs in genomics, gene editing and precision medicine. This has already had a profound impact on the healthcare and agricultural sectors, but the trend will ultimately impact all industries.

- **Digital assets** – the 'store of value' argument favouring Bitcoin relates mainly to the debt supercycle trend, but the underlying blockchain technology looks set to disrupt most industries. We are also intrigued by 'tokenisation,' in which fractions of large illiquid assets (like property and other private markets) could be transformed into digital tokens then easily bought and sold on an exchange; unlocking capital markets that were previously out of reach for smaller investors.
- **Chinese A shares** – a slightly leftfield way of investing in technology, but the mainland index is packed full of market-leading technology firms that are driving this innovation cycle. And they regularly trade at more attractive levels than their Western counterparts.

This list evolves over time (although not that frequently) but the ideas that really excite us are those that benefit from both mega-trends like sustainable investing, digital assets and biotech.

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29 Queen Anne's Gate, London SW1H 9BU, England
Tel +44 (0) 20 7222 8081, Fax +44 (0) 20 7227 8440, Email info@bentleyreid.com

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