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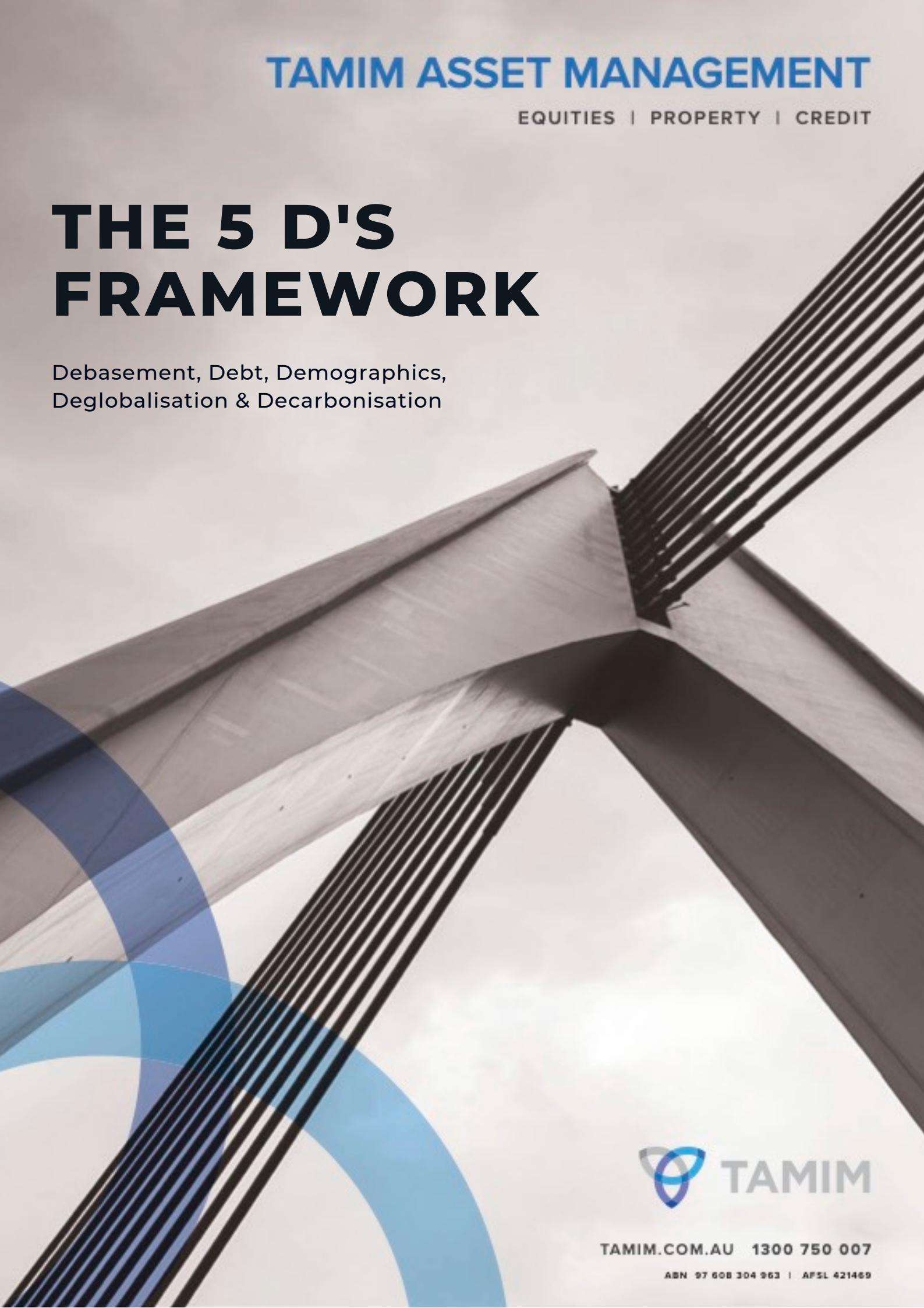
THE 5 D'S FRAMEWORK

Debasement, Debt, Demographics,
Deglobalisation & Decarbonisation



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INTRODUCTION

We begin with a story. Credit where it's due, this is one we came across in a presentation given by Simon Michaux, associate professor at the Geological Survey of Finland. He tells the story of Scottish salmon and, more specifically, of the canned variety. It goes along these lines; imagine you were a Scottish consumer looking to buy the product at your local supermarket. Then ask yourself a simple question, is it more rational for the product on the shelf caught a few miles away to be packaged locally? Or to take said salmon and export it to China, to be manufactured in steel containers, packaged and shipped back to your local market? A reasonable person would say the former, but a financier would say otherwise. In actuality, the nature of global supply chains, and initially comparative advantage in labour, and now capital intensity, has meant that it is more economical to do the latter. That is to add 20,000 shipping miles to the product that may have, in fact, been caught a few miles away locally, just to land back at your local supermarket.

SO WHY ARE WE TELLING YOU THIS STORY?

It is an excellent illustration of hyper-globalisation, which is where there is virtually no barrier to the free flow of goods, services and capital. This has led to the de-industrialisation of developed economies while acting as a catalyst for the significant expansion of corporate profits and, for the investor, EPS growth. Aside from easy monetary policy, one could argue that hyper-globalisation has been the single most crucial thematic that has governed investor returns. But all of this, we feel, is about to change. The following 40 years will be somewhat very different from the last.

So, without further introduction, we move on to discussing the new framework. That is, the trends that we think will impact the markets over the coming decades (known unknowns).

We categorise these as being the 5 D's, again credit where it's due, and this is the framework formulated by TAMIM Global High Conviction fund manager, Robert Swift.
The 5 Ds are as follows:

1. **Debasement (Inflation)**
2. **Debt**
3. **Demographics**
4. **Deglobalisation**
5. **Decarbonisation**

Now those of you who have read Nassim Nicholas Taleb (author, The Black Swan) or any forecaster since time immemorial may consider an exercise of this nature to be futile. However, bear with us and at the very least, you may get an idea of the common thematics that are impacting markets as they currently stand. That is, we focus on the known unknowns, trying to grapple with questions such as how far inflation is likely to go and the possible outcomes.

DEBASEMENT (INFLATION)

We're sure that the readership is aware of inflation, not to mention the so-called pundits patting themselves on the back for their doomsday calls on the monetary debasement that supposedly caused it. Close on their heels, we have the financial press making the call that this is a repeat of the '70s type of stagflationary environment. We are not fans of Milton Friedmans' notion of inflation "being always and everywhere a monetary phenomenon" nor that this is a repeat of the '70s. We believe the cause may be somewhere between the two. To gain an insight into what is happening now, let us understand what occurred in the '70s (especially given the tools being used are much the same).

Today's Economy vs the '70s

Hindsight is an interesting phenomenon, especially given our unparalleled capacity to try and rationalise events in a rather linear, cause-and-effect type framework. This framework posits that the '70s inflation was caused by a series of policy missteps, seemingly with groundings from the post-war decade of the '60s. In addition to excessive spending of the Lyndon B. Johnson (LBJ) era vis-a-vis Vietnam and the oil shocks of the early '70s, combined with Nixon's effective dismantling of the Bretton Woods system. Seems familiar? Well, if one substitutes Vietnam for Covid, the post-war recovery with post-great recession recovery, and finally, Nixon's dollar convertibility move with QE by the Fed, one may easily see the parallels. But here is where we ask the readership to take a step back for a critical review of the facts. For one thing, we begin with figure 1, which showcases CPI as it is currently calculated (more on this particular fallacy later). We are someway from the twin peaks of 1975 and 1980.

Figure 1 - source: BIS data

What is also markedly different in today's economy is the tightness in the labour market across not only the US but closer to home, while at the same time, wage growth is particularly lackluster. This particular attribute is quite important given that it implies the current inflationary pressures are NOT demand but rather supply-driven. This does not seem to be understood by the financial or wider media nor policymakers alike, given the policy tools in use. A helpful analogy is a notion of taking a sledgehammer to the task of cracking a nut.

Inflation Fighting Toolkit:

We begin with the Keynesian school of thought, which asserts that a tradeoff exists between unemployment and inflation - in other words, if inflation went up, unemployment would come down and vice versa (illustrated by the Phillips curve shown in figure 2). This is the fundamental rationalisation for the expansionary and contractionary fiscal and monetary policies undertaken to smooth out business cycles. In the '60s, it was what laid the foundations for the great societal measures undertaken by LBJ and the Nixon-era policies of the early '70s. However, what changed during that particular decade was the rise of inflation and unemployment at the same time that seemingly delegitimised the Phillips curve.

The cure? Milton Friedman's monetarism, which saw inflation purely as a function of money supply, and thus, using this school of thought, the key to tackling the issue at hand may be to keep the rate of interest fixed and the money supply stable. Government policy should thus focus on the supply side and, if possible, seek to lower the tax burden (corporate or otherwise). Friedman also argued that the Federal Reserve should be abolished in preference for a computer program.

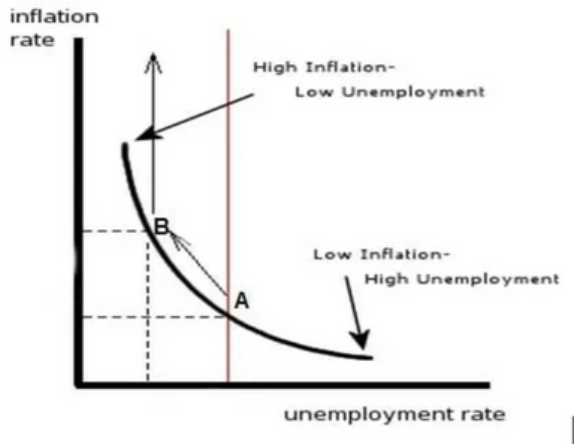


Figure 2 - Phillips Curve

How Government use these theories in today's systems:

At this juncture, you may get the idea about the various policies and how they fit within the inflation-fighting framework. The solidly Keynesian nature of current central bank policy seeks to expand the money supply during recessionary periods while doing the opposite in times of economic upturn. The central bank does so while policymakers on the fiscal side of the equation often bizarrely go in the opposite direction (at least till the advent of Covid). This combination created a perfect cacophony of contradictory policies.

What both sides seem to have forgotten, in our view, was the reality and mechanisms through which these various instruments work:

Take Quantitative Easing, which has been a constant in the post-GFC monetary regime. What was seemingly baffling for most pundits was that despite the significant liquidity injections that this had warranted (refer to figure 3 for the FED's balance sheet), it had hardly moved the needle both in CPI and employment, at least till recently. Why? Well, for one thing, not all money supply is made equal; policymakers seemingly forgot the simple logic that increases in bank reserves do not necessarily translate into credit growth or real money supply. It may arguably get trapped with the commercial banking system. Where this changed, however, was the Covid era QE. Whereas previous rounds had only involved buying treasuries, the Fed decided to cross the Rubicon in many ways by buying corporate debt outright (legally grey).

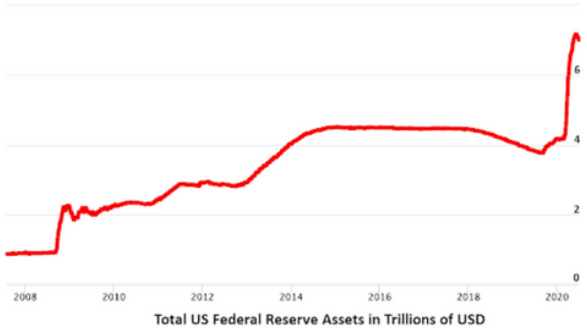


Figure 3 - Federalreserve.gov

Combine this with the significant expansion in fiscal stimulus (Keynesian style) that dispensed with the previously held views of budgetary conservatism, and you have the makings of actual inflation. We refer to the Trump-era tax cuts in the middle of the most significant economic expansion in decades based on Friedmans' ideas while dispensing such notions in response to Covid. A worst of both worlds type scenario.

So this would suggest that the recent bout is a result of monetary expansion, right?

The short answer is *not really*. The missing piece in the equation is wage growth, in other words, sustained increases (at least in nominal terms) of wages, which would then lead to sequentially higher demand and onwards in a circular manner. However, we are seeing low unemployment due to a combination of factors, including; declining or stagnant participation rates, demographics, and less bargaining power for labour - COMBINED WITH low wage growth. What was characteristic of the '70s was the disproportionate role of unions and labour movements in ascertaining wage increases along with a younger demographic. We shall explore demographics in the later on, but for now, think of the period of your lives where the highest expenditures are made or just refer to the graphs below. The clue is that it decreases sharply after the age of 64.

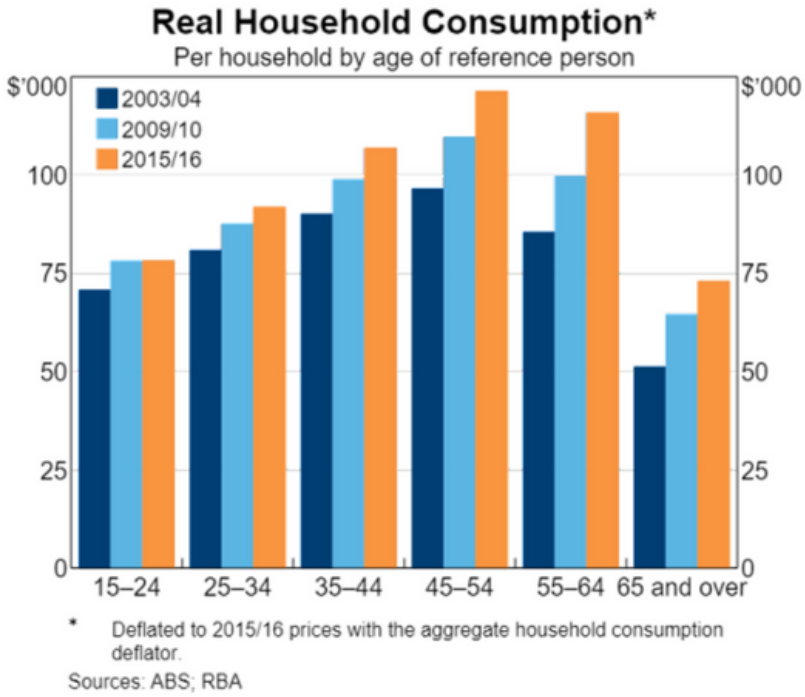


Figure 4 - source: ABS; RBA

So what's the point we are trying to make?

Firstly, the government is using policy tools that are fit for use but in a different era. Inflation is not demand-driven and is not necessarily about expanding the money supply. Yes, some of the inflationary pressures we are currently seeing may be a result of loose monetary policy and the fact that the rates have been below nominal growth for close (see figure 5) to two decades, except for pre-GFC (and we all know how that ended), and real-yields have been deeply negative for close to a decade (see figure 6). However, this would not explain why CPI has not been an issue until the past two years.

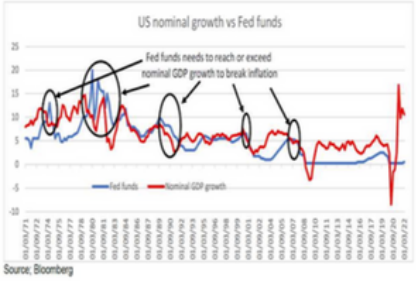


Figure 5 - Source: Bloomberg

Figure 6 - Source: The MacroStrategy Partnership, Bloomberg

The Real Answer...

We begin with the below chart (figure 7), and as the old saying goes, a picture (in this instance, a graph) paints a thousand words.

Figure 7 - Source: Bloomberg, MacroStrategy LLP

The chart represents Fossil Fuel Energy as a percentage of GDP. Despite the headway made in transitioning economies away from fossil fuels over the past decade and a half, we may just have given back the gains in less than a year. On the other hand, it is a tale of policy missteps, shifts, indecisiveness and a plethora of not necessarily nice adjectives. We've spoken previously about our thoughts on energy and our contention that we will likely see peak oil as the transition occurs. But a quick refresher on the overall thesis.

Energy Markets - A story of mishaps

The transition towards renewables and green energy is a fundamentally different one. It represents the **first time in human history that society is mandating itself to shift from a higher efficiency energy source to one with lower efficiency.** One that should've required an incredible amount of cohesiveness and nuance in formulating policy. For one thing, ensuring a price mechanism enables an effective capital allocation. Instead, we did have a mishmash of distinctive mandates guided by fundamentally flawed assumptions. Ranging from direct action in Australia to ill-thought-out green taxes. Take, for example, the IEA STEPS (Stated Policy Scenarios Model) model, which presented the below as a base case as recently as 2021:

1. Demand (for oil) levels off at 104 mb/d in the mid-2030s and then declines slightly to 2050;
2. Oil in transportation increases and peaks around 2025 at 97 mb/d and declines to 77 mb/d in 2050;
3. Oil falls by around 4mb/d in countries with net zero pledges between 2020 and 2030, which is then offset by an increase in 8 mb/d in the rest of the world;
4. Coal exports from Australia will fall by 5% by 2030;
5. Oil prices will rise to around US$77 per barrel in 2030.

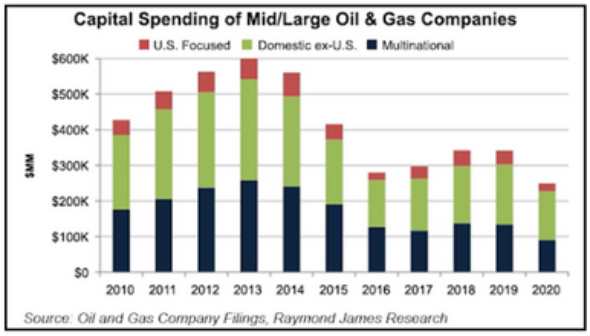


Figure 8 - Source: Company Filings

We are by no means suggesting that renewables do not represent a perfectly viable alternative or that traditional fossil fuels should be continued to be relied upon. We are positing that there should at least have been an awareness of the potential for steep declines in a new production for effectively multi-decade payoffs and the reluctance for exposure to stranded assets. One has to ask themselves, what sane financier looking at 0-emissions targets and uncertainty as to whether there may even be a market in a decade would finance new CAPEX?

Similarly, the question also has to be asked whether the C-Suite of producers may wish to undertake any reinvestment or additional production even in the presence of markedly higher prices.

While many have suggested and blamed recent woes squarely on Russia, we would like to disagree. In our view, much of the Russian supply of black gold remains online, being diverted to buyers in the form of India and China. We posit that the premia paid in spot markets due to Russia is circa. 20%.

So is this scenario likely to stay, and what does this have to do with debasement (Inflation)?

We recently found an article elaborating on the cost of bathroom tiles for the Australian consumer. Apparently, last month, the largest tile producer in Spain collapsed due to higher energy prices. If this is indicative of the broader market, and with Spain being the fifth largest product producer, one can imagine the cost implications for an already overstretched market (cost of production sky-rocketing 1,047 per cent over the past 12 months). But consider for a moment what goes into the CPI basket and uses for fossil fuels. Ranging from fertiliser to shipping to transportation. Consider, moreover, the implications broadly for the Food Price Index or FPI. Below is an illustration of the large drive-up from 2003 - 2007. Some of us may even remember the political implications ranging from the Arab Spring to instability across broader emerging markets.

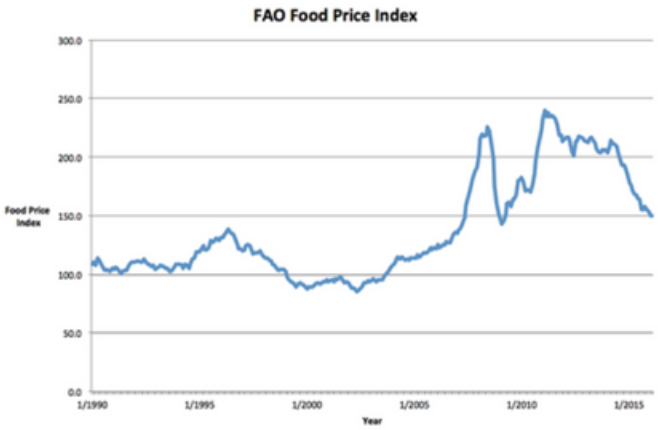


Figure 9 - Source: Food and Agriculture Organisation of the United Nations

In fact, on the last point, the readership may already be aware of the protests currently taking place in Europe with stakeholders ranging from the hard-left to the hard-right and everything in between. The cure? More stimulus measures aimed at ostensibly circumventing the pain of the hardest hit.

Looking to alternative solutions, we have the Federal Reserve going back to the same tools it has always sought along with the ECB, which is to raise target rates, which will supposedly dent demand (again, we have already posited that this is not a demand issue rather it is mainly a supply issue). If the logic is that inflation is eating away at the consumer's purchasing power, then surely it makes no sense to ensure that they are no longer employed and thus no longer able to consume at all? As stated previously, sledgehammer to a nut.

We shall conclude with thoughts on what comes after the seemingly inevitable policy error. We would argue that the Federal Reserve's recent hiking cycle has created a scenario where liquidity has increasingly fled emerging markets in preference for dollar-denominated assets. With over 75 nations globally at risk of sovereign risk default at the last count, we see significant systemic risks. We feel that central banks may be the cause as opposed to the solution for inflation running away. Supply issues will not be sorted by taking liquidity out of the system or increasing the cost of capital for producers. We feel that there will be a slow but inevitable realisation of this but by which point it may be too late.

DEBT

We begin with the statement that not all debts are created equal. And this isn't simply about distinguishing between household debt and public sector debt, but also the purpose for which the debt burden was increased.

Chalmers, our then newly minted treasurer, stated rather vehemently that "the debt burden left to us" was the highest since the aftermath of WWII". Aside from the shoddiness of the research undertaken in a clearly public statement, since Debt to GDP in 1950 was 88% under Menzies as opposed to the 54% it is today, it showcases a fundamental misunderstanding of the nature of debt in the broader economy. Looking more globally, we are constantly told that with Federal Debt in the US, standing at an astonishing 130% of GDP or $30.8 Tn USD or put another way $245,000 USD per taxpayer, it will never be paid back. Similarly, we hear pundits (who should know better) posit apocalyptic consequences, comparing governments to households. So let's begin with that and understand the likely way out of this situation, looking to history for some guidance.

First, it is neither relevant nor even valid to compare public debt to that of a household. For one thing, households cannot create their own money. So how does government debt actually impact the broader economy? Are we implying similar to that now infamous modern monetary crowd, that governments simply print their way out of this situation? Well, we can accept the latter if not for one simple metric - inflation. In the absence of inflation, one could easily make the case that the state doesn't have any incentive to not take on additional debt or indeed increase money supply indefinitely.

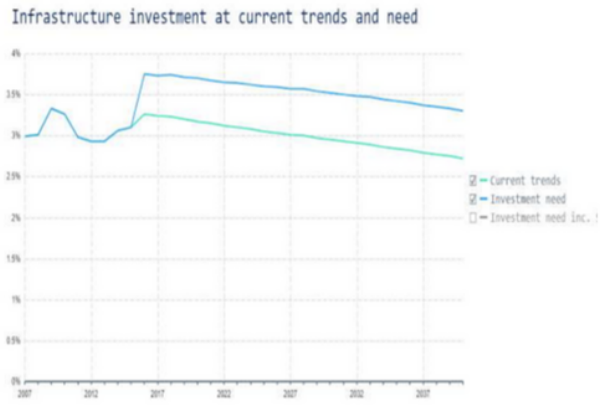
So then we come to the real issue: it is not the extent of global debt but rather a causal link between debt and inflation (debasement).

Back to Basics

(Credit to Prof. Steve Keen here who we don't necessarily agree with in totality but in this instance certainly) Let's think for a moment about the overall banking system and money creation from a purely accounting perspective. In doing so, we use the balance sheet equation: **Assets - Liabilities = Equity.** From a bank's perspective, its assets are made up of loans, treasury bonds and reserves, whereas liabilities are deposits with equity being the gap between the two. In this instance, government expenditure increases the banks' liabilities in the form of deposits (i.e. increases private savings), whereas taxation does the opposite. Thus, we have a situation where government deficits increase money supply, whereas surpluses do the opposite. By the way, this viewpoint goes against the traditional economics you may be more familiar with, given Public Debt is supposed to crowd out the private sector.

The above mechanism may indicate why QE didn't have the desired effects, and why inflationary pressures were not evident. QE is an increase in the bank reserves of the financial system; thus an increase in assets and corresponding equity. **It is not necessarily transferred into the real economy.** Because we are specifically speaking of public sector debt, we shall look at the mechanism for why public debt is not your traditional debt. When the treasury issues debt, it does so with interest, but how do the banks buy these notes. Well, they do so with reserves (i.e. an asset swap effectively) which were in turn created by the deficit itself. Banks do so because unlike reserves, bonds earn interest and can be traded on the market.

The point is that it may in fact perversely be the case that public sector debt is a REQUIREMENT as opposed to a want for a well-functioning economy. In effect, every time a government runs a surplus, it does so at the cost of the household. Our contention is however not that we should continue to pile on public debt. The reason for this is the presence of inflation which leads central banks to increase interest rates. In particular, the below chart says it all:



Source: White House, Congressional Budget Office

The chart showcases how at current pace, the US debt servicing burden will be the single biggest source of expenditure for the Federal government as early as next year. If the hawks at the Fed have their way then this will vastly outstrip and hamstring any further growth. Since the headline Fed funds rate seems to be the only tool with which we seem to know how to use at this point in time, there is every likelihood that at least in the short run, we (or more specifically the US) may end up running roughshod over the economy.

It is our belief that higher levels of public debt have not in this case led to higher inflation (this time round it has been a result of the supply side). Rather, tackling inflation in the normal fashion could be harder and much more dangerous in the current economic environment because of the higher levels of debt.

Beyond the Basics; Debt and the Global Economy

The above is a brief overview of the implications for economies with a mature financial system and the ability to issue currencies at their own pace. The problem? Consider the Eurozone with nations such as Italy and Spain with disproportionate amounts of public sector debt that nonetheless do not have control over money creation nor their own rates.

Similarly, consider the 75 nations that are close to Sovereign Debt default since their debts are issued in USD. The Federal Reserve is central to the functioning of the global financial system. Thus a more "fiscally responsible" US intent on dealing with domestic inflation could effectively destabilise the rest of the world. Doesn't make sense? Consider the simple accounting scenario described above and consider a context in which the financial system's balance sheets in vastly different jurisdictions could have assets and liabilities in a currency unrelated to the nation they operate in, for example the Eurodollar markets (time deposits of USD outside of the US or global central banks requiring treasuries to facilitate their own trade).

A slowdown in US treasury issuance and a hawkish Fed have broader implications for most investors' emerging market allocations and global growth.

Beyond the Basics; Debt and the Global Economy

It was Winston Churchill who once said that Americans will always do the right thing - after exhausting all other options. Substitute Americans for central bankers and we posit that it makes a great deal more sense. What may be in store is perhaps nicely highlighted by a recent case before the British High Court. In this particular case, the pension schemes of BT, Ford and Marks and Spencer challenged the UK government over the legality of a planned change to the calculation of inflation.

The UK statistics authority wanted to reformulate the retail price index inflation measure from 2030 and replace it with CPIH (CPI + household expenses). In short, the government wished to use a better representation of inflation (which also happened to be the lower number). RPI in the UK stands at 12% vs. sub 10's for CPI.

Never fear, we have seen this done this before, with Clinton administration in the 1990's altering the way inflation was measured. Essentially by lowering the measured or publicly stated inflation number, we then allow central banks to run interest rates at lower levels. This creates the illusion of a positive real interest rate while still allowing the government to service their rather large public debt balance. In the US, it was done by keeping REAL interest rates for government debt below 1% for two-thirds of the time between 1945-1980.

Side note on Government Debt

We recently came across an article in Bloomberg which showcased that the biggest ports in the US were also the least efficient for containers (i.e. Los Angles and Long Beach ranking below their esteemed counterparts in the Congo and Angola). Inefficient ports result in costs of using them being higher then they should be (supply side inflation). Imagine if the US government had used their "printed cash" to upgrade the port infrastructure (helping with supply side bottlenecks) rather then send out billions of dollars in stimulus cheques...

DEMOGRAPHICS

Why Demographics?

Now we're sure the readership has been saturated with doom and gloom scenarios ranging from Malthusians claims of ever-growing population being unsustainable to the aging demographic question (which implies quite the opposite and a declining population). So as always, let's take a step back and work towards a schema for understanding this particular thematic.

In doing so, we will break down the question of demography and its composition into three distinct but interrelated categories:

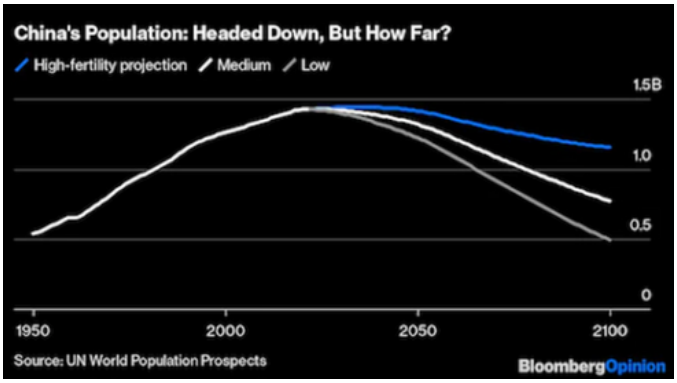
1. Fertility rates
2. Current Trends
3. Potential changes/implications

Fertility Rates

We begin addressing this particular issue by summarizing a speech by Pope Francis at the Vatican. At the beginning of this year, His Holiness got a lot of attention in the media for his lamenting that many couples are seemingly choosing to have pets over children and that forgoing child-rearing "takes some of our humanity away". Our question here, of course, is not the size of the Popes' flock but the validity of declining fertility across the planet. Is the Pope onto something here?

Let's begin with some interesting facts. Fifty years ago, the median age of the world's population was 22, today it's 31, and by 2050 it will be 36. In fact, for the first time in history, the proportion of people over 60 now supersedes those below 5. According to the world bank, the fertility rate had dropped to 2.4 children per woman in 2019 compared with 4.7 in 1950 (i.e. a decline of nearly 50%). This becomes even worse when looking at cross country analysis with developed countries such as Japan now seeing steady population declines. There are currently 3 Million fewer people in that particular nation than in 2008. So this brings us to the next question, simply why? And why now?

Current economic thought suggests an inverse relationship between levels of income and economic development to that of fertility. More simply put, the wealthier a society gets, the less babies. The basis for this could be in many ways intuitive. For example, in countries with lower levels of development, children may be a form of support helping supplement the family income or a form of social insurance. Similarly, higher levels of infant mortality may also perversely incentivise higher fertility levels. As development occurs and female participation rates increase, so does the opportunity cost associated with child-rearing. This may also be why nations such as China have started declining, and fertility rates have remained persistently stagnant despite the party's repeal of the one-child policy. On the latter's part, this will not be part of any official figures but rather independent modeling.



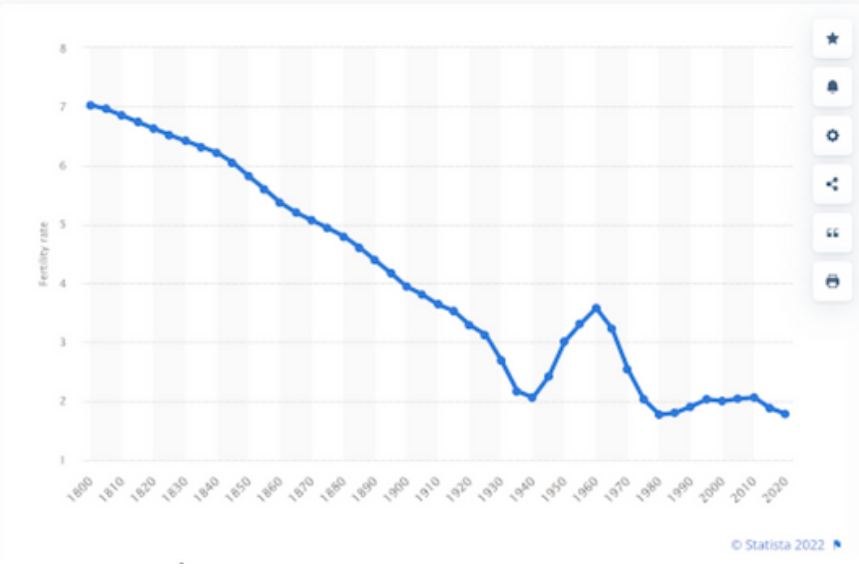
Source: Washington Post

So empirically speaking to date, we have seen the facts bear out a lower fertility rate and an increasingly aging population. But why now?

Answering this question would be a normative endeavor and can only be dealt with by opinion. We would suggest that there may be two factors at play. The first is the naturalistic assumption of finite upper bounds to growth in a Malthusian sense, and the second is that we are reverting to the long-term mean.

Doesn't make sense?

We'll take the below figure showcasing the fertility rates in the USA:



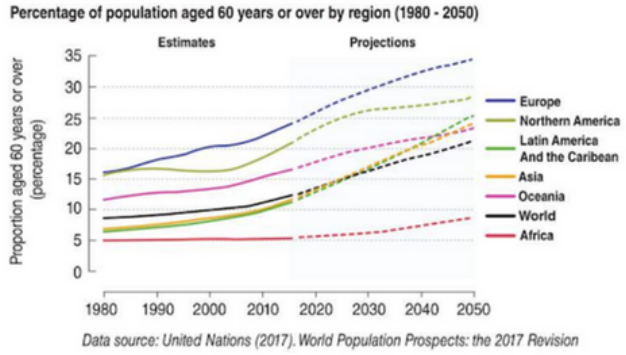
This graph showcases the long-term decline of fertility, with 1940-50 being the outlier due to post-war tendencies and a return of the GI Joes. A reversion to the long-run trend would necessarily imply an aging demographic. We would suggest this would be similar for much of the developed world.

So does this mean we will see a future population decline?

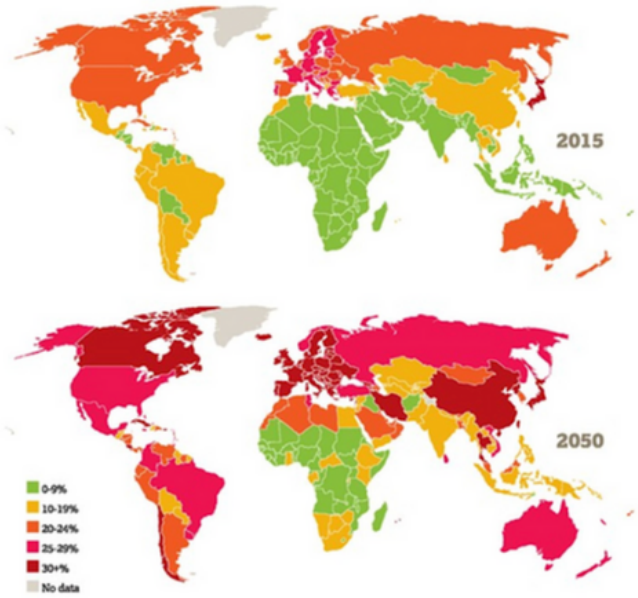
Current Trends & Potential Changes

As with all forecasts, this may be a rather woeful exercise similar to gazing at the stars, but let's state the scientific consensus that we should reach peak population at some point in 2080, after which a period of stagnation should occur till 2100, followed by quicker declines. The UN's population division using assumptions of growth (based on historical averages) and extrapolating that out to the future assumes that the number at its peak would be 10.5 Billion people. This would be good news if one were to use Leeuwenhoek's contention of 13.5 Billion being the earth's peak capacity (for those unfamiliar with this gentleman, he was the inventor of the microscope). His guesstimate is as good as any since the formulae for expert predictions don't seem to have changed much.

As a base case scenario, we can assume one thing, that the population over the coming decades should grow though at a decelerating rate (fertility). Much of this growth will come from developing nations that have yet to move up the income curve. On a more macro level and assuming the absence of great wars or catastrophic events, the population will also continue to age at increasing levels.



Source: United Nations



Source: UNDESA Population Division

There are significant implications of this trend going forward, not all of which we can say will be spread uniformly.

Current Trends & Potential Changes

The first implication from an investor's perspective is related to the policy environment. Think for a moment that no major developed market cities or suburbs were ever built with the elderly in mind. Nor taxation or social security systems are designed to cope with a shrinking labor force to support an ever-growing and larger aged population. One solution to this could be the encouragement of migration to increase the younger population, but this could hardly be sustainable. Especially given the political ramifications, not to mention the fact that it may be a band-aid solution as the new immigrants are more likely than not going to revert to the long-term mean (i.e. fertility rate in the long run).

We may, alternatively, see government interventions to reverse long-term trends, such as South Korea allowing parents to take an additional year of reduced work hours to top off an already generous one year of leave. The policy environment will thus be an evolving phenomenon as governments look to intervene increasingly and try to counteract societal pressures. We have already seen some extreme examples of this, with Hungary's Orban-led government announcing an exemption from tax for life to mothers with four or more children.

Implications for the investor

Baby Boomers, as of time of writing, control three-quarters of the world's net worth (assets) and reside primarily in developed nations. At the same time, Gen Z (born between '97 and '15) will inevitably make up the income side of the equation and the labour force in emerging markets (9 out of 10). This is a rather big call to make then it may sound at face value. Why?

The investment landscape to date has been defined by a dynamic where goods for example are manufactured in low cost countries with the express intent of then exporting them back to developed markets (more often than not those countries or jurisdictions from where the capital originated). What we are positing here is that rather than this dynamic continuing to be the case, the market for said goods will be in the manufacturing countries themselves with simply the capital sources remaining the same. A sign of what is to come can be summed up by Raghuram Rajan, an ex governor of the Reserve Bank of India who pushed for a “make for India” policy as opposed to the then touted “make in India” put forth by the then newly elected government.

Looking closer to home and towards more developed (more aged) economies, we will see significant tailwinds for capital intensity as the available labour force shrinks comparatively. A recent story we came

Source: AvatarMind Robot Technology

across about Japan experimenting with robot nannies is a sign of what is to come. A shortage of carers leading to increased demand on the aging side of the equation.

We posit that economies and industries will be transformed through the process along with the associated opportunities within a given index. For example, critical beneficiaries in Japan and China will be within the broader robotics sector and defence stocks. Names such as Amada, SMC and Fanuc are companies that look particularly attractive. Similarly, as the aging process speeds up, pressures will undoubtedly be placed on healthcare and aged care providers, which despite substantial growing pains, should see significant earnings growth. At the same time, policy interventions that push for increasing fertility rates, such as childcare subsidies and parental leave, will impact the investment proposition on two fronts. The first is the more obvious, childcare sector growth, but also the negative human capital risk (i.e. it could exacerbate existing labour shortages and create a new dimension for assessing human capital).

Aging demographics and changes could nevertheless present opportunities for outsized returns.

On a side note: the jury is still out on the long-term implications for equities valuations in an increasingly aging population. For example, investors looking to derisk their portfolios as they move up the age bracket. On the other hand, those same investors may yet place demand for alternative financial assets such as fixed income which could lower the overall cost of capital and thus feed through into the equity markets.

DE-GLOBALISATION

In our view, this story presents a poignant illustration of the interdependence of global supply chains, particularly a form of globalisation that showcases an asymmetry in relationships. More on that later. But for now, consider Germany, the fourth largest economy in the world and the arguable powerhouse of the Eurozone. The fact is that its second largest (and to date fastest growing) trading partner is China, while its largest energy source is Russia. Two jurisdictions that could not be more different on any other front other than commercial interdependence.

Similarly, consider the country we live in and the fact that its largest export partner accounting for 43% of exports is China, while 25% of its investments come from the US. Two jurisdictions that seem to be headed on a collision course.

We, however, believe that the very forces that resulted in the above scenarios are in the process of being reversed. Not because of any particular desire on the part of participants or economic imperatives but rather due to realpolitik. There is increasing awareness across developed and developing jurisdictions of the need to build more resilient supply chains and diversify economies.

Context

Taking a historical perspective, the readership may be surprised to learn that if we use the term "globalisation" to describe phenomena of increasing connectivity and interdependence through trade and technology, then this is not a new phenomenon. One need only look to Pliny the Elder in the Roman Senate (1st Century AD), describing how Rome was being drained out of silver due to the penchant of Roman women for Indian silk. Or indeed, even Alexander's quest to unify the known world goes back even further. Globalisation is and has been, throughout human history, the norm with infrequent bouts of push back. So are we suggesting we see a paradigm shift and reverse course altogether? The answer is a no but with a little more nuance.

We begin with a proposition: not all globalisation takes the same form. Today's view of globalisation relies largely on Smith and Ricardo's absolute and comparative advantage. That is, the notion of economies specialising in particular production for overall gains through trade. From an economic perspective, this makes complete sense. It is what allows Russia to focus on wheat and energy production, given its abundance in land and natural resource endowments, while China has historically focused on manufacturing, given its abundance in labour. Specialisation, the argument goes, results in ever lower prices (via economies of scale and scope) and increased output.

This logic has created perhaps one of the most significant expansions in living standards and output growth in human history. While simultaneously requiring commerce, growing access to new markets and decreased barriers to trade. It has also meant that supply chains have become ever more globalised, with particular jurisdictions focusing on specific aspects. Take Apple as an example. Consider Apple's iPhone and its manufacture involving 785 Suppliers in 35 countries, all specialising in specific components. This is not the issue, but what happens when the majority of suppliers, say around 350, are domiciled in China. Or going back to the example of Germany, 55% of their natural gas supply comes from Russia? Moreover, in the event of increased tensions in the political space, what then is the outcome should particular polities decide to use their specialisation or what is effectively an asymmetric relationship as a form of warfare? This is not something new, as the US's use of unilateral financial sanctions or China's threat of using rare earths supply to resolve disputes with Japan in the South China Sea in the now forgotten 2000's clearly showcased.

Similarly, what may happen should exogenous factors such as a global pandemic, freeze supply chains. Even worse, when disparate responses by different polities in reaction to it cause the deflationary pressures of the globalised supply chains to be reversed?

This is arguably the time we are going through.

Current Situation

We recently came across an interview at the World Economic Forum with Dr Okonjo-Iweala, who happens to be the Director-General of the WTO (World Trade Organisation). She highlighted that despite the rhetoric, US-China Bilateral Trade Volumes reached the highest on record in 2021 and continued to grow apace during the previous Trump administration, irrespective of tariffs. This factoid speaks volumes about the sheer scale of the task ahead should consecutive administrations wish to reverse course.

To give some numbers, since the end of WWII, global exports under the auspices of the General Agreement on Tariffs and Trade (GATT), the precursor to the WTO as mentioned above, have expanded over 340 times, while Asian exports have expanded 1100 times. The implication is that the region benefited disproportionately due to the post world war order. While this may have been somewhat a result of the dismantling of the colonial era policies that led to the captive Indian market for the British Empire and the reconstruction of Japan and China, what is immediately evident is the region's increased centrality to the global economy.

What's changed?

A reversal has been in the making since the second half of the Obama administration. After having been admitted to the WTO, it was increasingly clear that China was following a markedly different path from that of her regional counterparts. The historical tendency was that admittance into the global multilateral framework also translated into economic and political liberalisation. This was the case with the likes of Taiwan, South Korea and much of Asia (including Indonesia and Philippines, though to a lesser extent) but not China.

On paper, it was the path of extraordinary powers of the past century, including Great Britain, which created an effectively closed economy within the scope of her empire (free trade for those within and collective barriers to those outside). Or that of the United States, which during the early 20th century had some of the biggest barriers to entry, including the introduction of the Smoot-Hawley Tariff Act that exacerbated the great depression. It was, in effect, developing its own domestic market while using trade policy to drive clear political outcomes.

The now infamous Transpacific Partnership or the TPP effectively countered Chinese influence in the region but it was withdrawn by the newly elected Trump administration. The Trump era was characterised by further escalation in the tensions with China and the implementation of tariffs.

The Chinese response was in part the now infamous OBOR or Belt and Road Initiative combined with the use of fiscal and financial initiatives to create its own sphere of influence. Within this already existing trend, two more events came to the front. The first was the Covid pandemic, and the second was the Ukraine invasion.

COVID-19 & Ukraine - a game changer?

We posit that despite the commonly accepted story line, the Covid pandemic and the Ukraine conflict only brought pre-existing thematics to a front. What were previously signs of strain between two great powers (one incumbent and the other rising) has led to a conflagration across regions. Covid showcased the sheer fragility of supply chains. The Ukraine invasion highlighted the over-reliance on specialisation as trade was weaponised and financial sanctions were implemented. It is, in our view, that the tendency of specialisation in trade leads to asymmetries in relationships.

For example, 80% of rare earths supply comes from China, while Taiwan remains central to the global semiconductor supply chain, effectively spilling over into matters of national security.

This form of mercantilism is arguably a fundamental tenet of the legislation passed via the CHIPS & Science Act stateside and the infrastructure spending characterised in the Inflation Reduction Act (IRA). Looking elsewhere, we will likely see a rethink of barriers and the MFN (Most Favored Nation) framework that characterises the Multilateral Agreements today toward a more bilateral approach.

These regions, or perhaps more aptly Blocs, in our view, will be similar to those of the past within a multi-polar (multiple powers) framework whereby the powers will act as the nodes that direct and are responsible for the allocation and direction of capital. For the investor, this has two implications. The first is the gradual de-risking of your investments in one sense since the competitive landscape for incumbents shrinks with the flipside of shrinking profit margins and earnings (i.e. higher input costs and smaller markets). The second is the increase in political risks as government policy will increasingly determine individual securities' fate and competitive landscape.

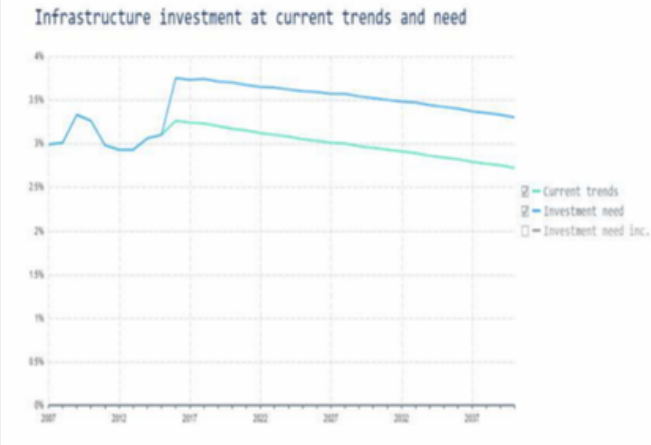
On a more macro level, we are also likely to see the duplication of supply chains combined with subsidies and less efficient procurement practices with associated higher prices, which does not necessarily bode well for future inflation trends.

Where are the Opportunities?

Deglobalisation may create opportunities for the discerning investors amongst us. We need to consider this taking into account two factors. The centrality to the overall economy of deglobalisation and secondly the implications for broader national security within the context of a disunited world.

Infrastructure

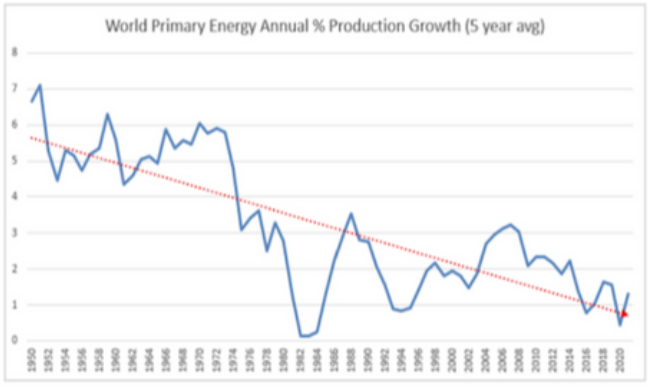
We have previously alluded to the inefficiencies of US ports as an example, but we are already in the process of seeing some substantial deficits in projected and needed infrastructure (see graph below) spending globally. Especially within the transportation and power generation sectors.



Source: G20 Infrastructure Hub

Energy

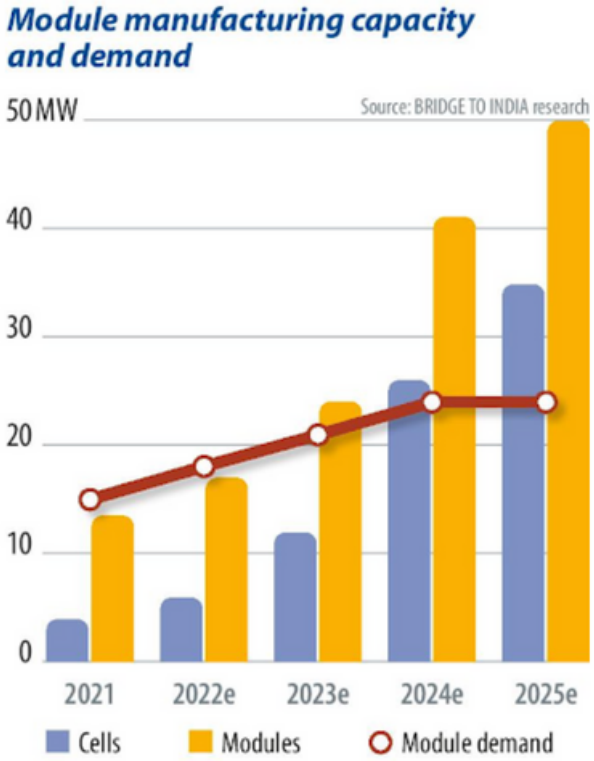
We look to energy which has played no small part in the recent pains related to inflation. The below graph shows the primary energy production on a 5-year basis. Though our efficiency has more than offset this decline, the closing up of supply chains (and associated duplication) could intrinsically see this trend reversed (it may well become a necessity).



Source: Macrostrategy

Renewables

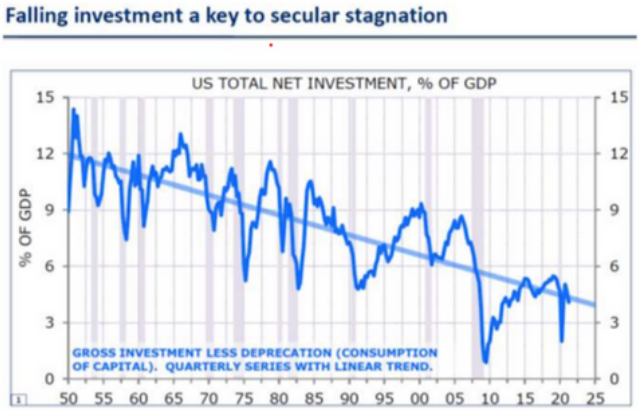
Closely related to infrastructure and energy is the speeding up of investments into renewables and the associated mobility transition. This will be increasingly central to the next leg of growth as nations such as China and India continue to invest heavily in the space. The below graph shows India's manufacturing capacity and demand for solar generation. According to the IEA, a price tag of $160 Billion per year is needed on average to meet energy production targets. On the other hand, despite being the largest producer of Wind and Solar, China looks set to continue at a rapid pace targeting 25% of domestic energy consumption from renewables. This aspect for the readership is not simply about the environment but the opportunities for growth and manufacturing capacity that could result.



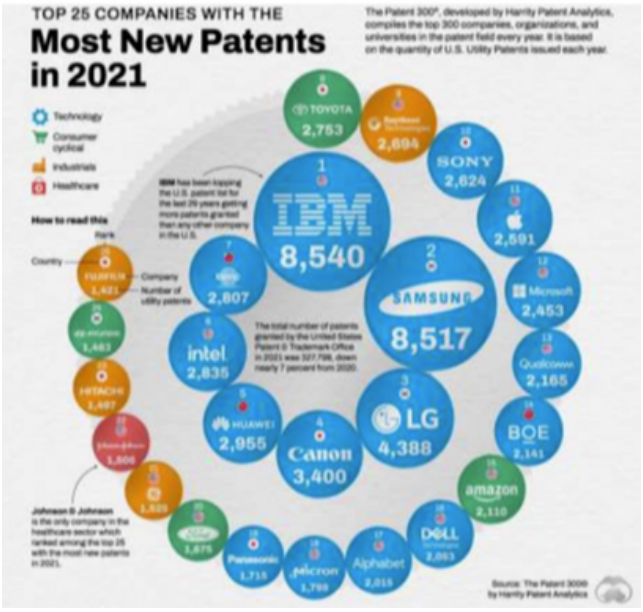
Source: BRIDGE TO INDIA research

Technology

Here we are not referring to the market darlings that the readership may be more familiar with in the form of Facebook or Netflix but rather what we define as true technology, including the likes of Advantest (semiconductor maintenance) or even IBM. Here is where the old notion of comparative advantage might still be in play with the US and developed economies such as Japan being clear leaders. Along with outside performers such as Israel or Taiwan. We will see increasingly stricter enforcement of patents and targeted subsidies for R&D (which should hopefully see the below trend reversed in terms of investment expenditure).



Source: DSG Asia



Conclusion

Thus, to conclude, we believe that a reversal of a particular form of globalisation that has become synonymous with the rapid rise of specialisation and a somewhat fragile supply chain is about to end. Increasingly national security and geopolitical imperatives will be prioritised over efficiency gains which we expect could result in:

1. The duplication of supply chains;
2. Government intervention in the form of subsidies;
3. Less efficient procurement - and higher prices, From an investors standpoint, this presents opportunities across a range of sectors, including but not limited to infrastructure, energy (including renewables) and technology.

DE-CARBONISATION

TAMIM

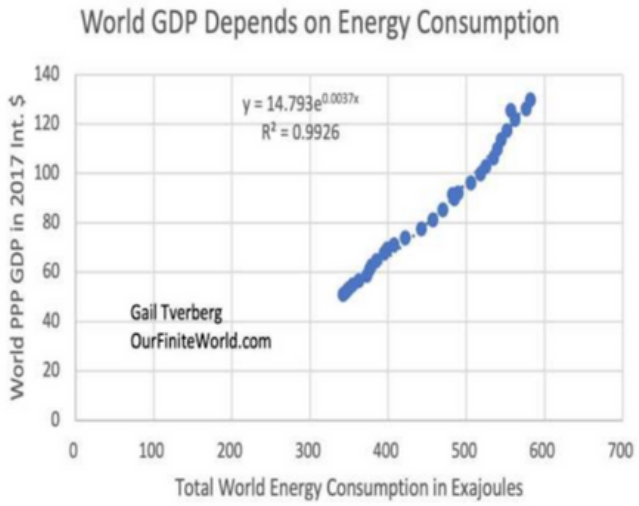
Introduction

We begin with a disclaimer, neither are we experts in the field of climate science nor do we postulate a normative stance on the issue given the sheer politicisation of the energy markets in recent years, a scenario we find rather baffling. Rather our lens here will be to explore what the facts on the ground are from a policy perspective and the implications for markets.

First some background and the policy context to date.

Background

The story of energy and its transformation is the story of humanity, from our pre-modern ancestors utilising fire to expand caloric intake, which eventually led to our expanded brain, to the fossil fuels that catalysed the industrial revolution. Energy is what makes modern society run. From the food we eat to the economic growth that allows us to avoid the Malthusian trap. In fact, the great biologist (Charles Darwin) stated that the two most significant achievements of humanity are the use of fire and language. For further context, see the below graph showing the correlation between output and total energy consumption.



Source: ourfiniteworld.com

We begin with the following statement. De-Carbonisation is arguably the first time in human history that we are actively trying to curtail energy output and are in fact, transitioning from a higher-efficiency source to a lower-efficiency source. Now we are by no means discounting the substantial advances in renewables technology nor the efficiency gains in recent years in say, solar, which is arguably cheaper (contingent on time) than traditional coal. We are stating that there is now active and targeted intervention to change the energy mix irrespective of traditional cost-benefit or commercial rationale.

Most governments across the planet today have at least some blueprint for a carbon strategy predicated on reducing emissions. Broadly speaking, this takes two forms. The first category is direct intervention, and the second is market-based intervention. Let's explore each in a little more depth.

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Government Direct intervention

In saying direct intervention, we refer to the more traditional methods that investors may be familiar with, from infrastructure investments to subsidies. Prime examples that have hogged the limelight down under could be the infamous direct action policies undertaken by the Abbott government to Turnbulls' Snowy Hydro 2.0. Other examples could be expanded appropriation for green R&D and infrastructure in the inflation reduction act or the recently proposed tax cuts for EVs stateside.

To give some context about the sheer scale of what is in play here, consider the IEA's Sustainable Recovery Tracker, which measures global recovery plans from Covid-19 concerning clean energy measures in particular with the following in mind:

- Monitoring energy-related policies and government spending on clean energy measures by country and by sector in the wake of the pandemic
- Evaluating the actual impact on total public and private recovery spending on clean energy measures.

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The index suggests that spending commitments across the planet have jumped 40% above the levels after the GFC or to USD 710 Billion. But within this, however, there is significant divergence, with advanced economies accounting for the bulk of the effort with over USD 370 Billion in advanced economies while standouts in emerging markets include those such as India and China.

This brings us to the second category.

Market-Based Intervention

Closely related to direct intervention, market-based interventions require a little more nuance in understanding. Let's first understand what the rationale for intervening in the market is. To put it in simple terms, a market-based intervention is grounded upon the notion that there is a market failure typically in the form of mispricing as a result of a negative externality. To explain this even further, consider a public good such as defence spending or law & order, which benefits all stakeholders in a jurisdiction equally, irrespective of the amount of taxes paid or even whether an individual citizen pays taxes. This could be said to be a case of a positive externality. But what happens in the event of, say, a coal-powered station which results in pollution or acid rain (i.e. the related higher expenditure)? The latter is a form of a negative externality, government intervention in this event is typically targeted with punitive measures trying to price in said externality into the market price.

Here is where things get hairy and the political debate gets rather heated, that is, in answering the question of what the calculus should be in pricing said externality. So if one assumes climate change to be true, it follows that the extent to which various pollutants cause it must be quantified and inculcated within the market equilibria. How do you then go about placing that price? Especially given the tragedy of the commons that allow for uneven distributions in outcomes. Take, for example, the impact of rising sea levels on third-party island nations in the pacific or changing conditions for agricultural production in China. It is this particular aspect that often requires global cohesion and consensus.

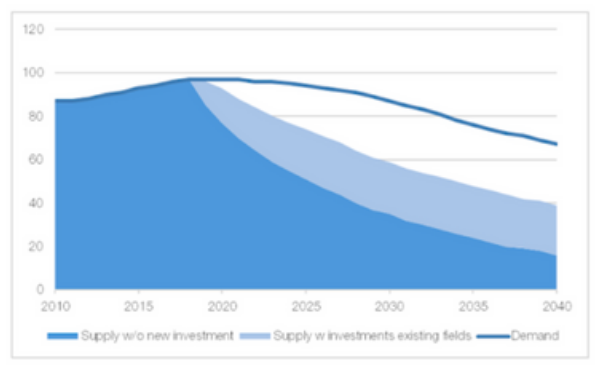
And the implications may not be so obvious.

Implications for Energy Markets

We recently encountered a litigation in the Higher Regional Court of Hamm brought against RWE, a large German utility company. The plaintiff? Saul Luciano Lluya, a Peruvian farmer from Huaraz whose 120,000 inhabitants sit close to the shores of Lake Palcacocha, which has swelled up in recent years by 34 times (since 1970) due to melting ice from glaciers above. Mr Lluya wishes for RWE to pay its share of the costs associated with building the dam that prevents flooding. Interestingly, the monetary value itself is not the issue at hand (arguably negligible) but the implications for utility companies in terms of financial risk (i.e. it could set a precedent that sees Utilities and energy providers having to pay damages for climate risks). It fits well with other cases in recent years, including the actions by ClientEarth in 2018 that effectively prevented Poland-based Enea from building its one-gigawatt power station 120 KM outside of Warsaw. In this case, ClientEarth, after having bought ten shares of the company for a grand total of $23, got its lawyers to use climate risk to substantiate the argument that it was not in the best interests of shareholders.

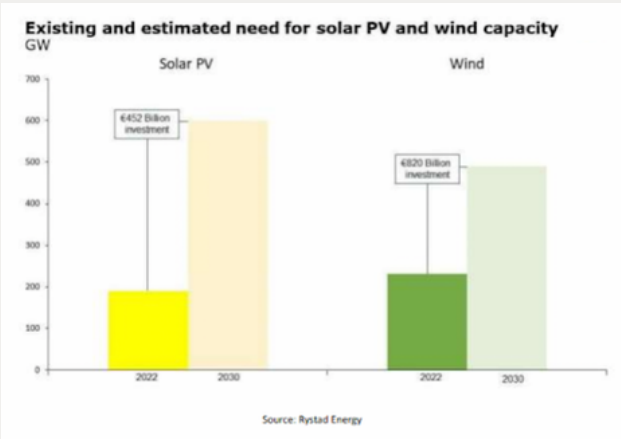
The cases are just some of the trends impacting investors going forward. We foresee the broader increase in the cost and risks associated with traditional assets while simultaneously catalysing lucrative opportunities. This is not necessarily just limited to simply renewables assets but also existing fossil fuels producers. On the latter point, we still contend that we will likely see a case of peak oil and energy as the transition and de-carbonisation takes place. Think for a moment about the implications for the price of outstripping demand without the requisite ability to bring on additional supply - this is a potentially lucrative proposition for incumbents with already existing production. For this reason, we continue to invest in both LNG and Oil & Gas pipeline companies taking into account some of the jurisdictional and political risks. Companies such as OKE, KMI, LNG, ENB, WMB and SLB.

In fact, assuming current trends stay on course and should demand for Oil & Gas stabilise and decline over the next two decades, the differential will continue to mean higher prices for longer.

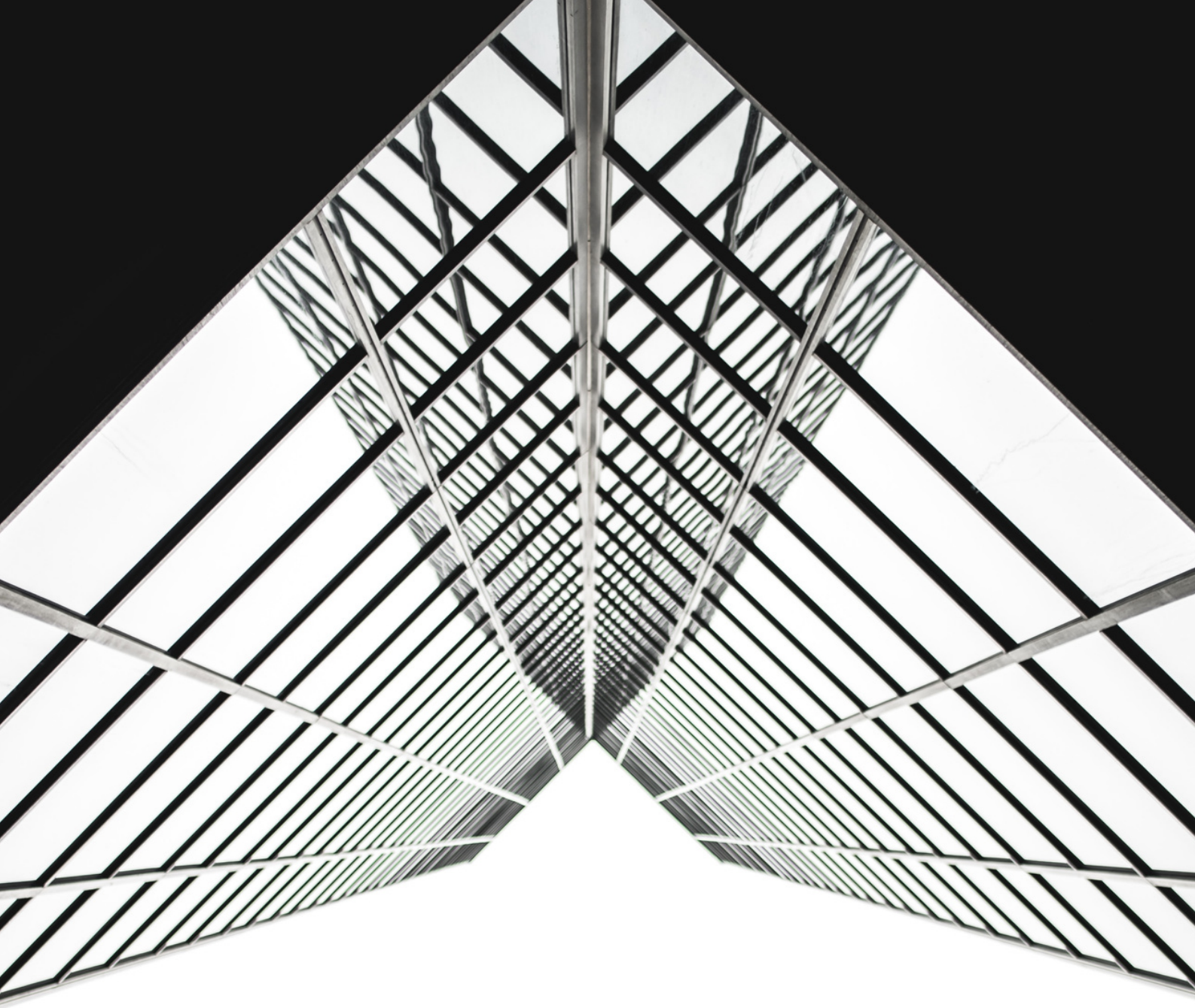


Source: World Economic Forum

Combine the above with further headwinds (for the broader economy) in the form of monetary policy and fiscal policy-led distortions. Our base case sees substantial risks to the downside in production with a continued upward trajectory in electricity prices. The reason? Think for a moment about the implications of the higher cost of capital (in terms of interest rates or taxes) on new or incremental production (hint - oil wells are long payoff and high CAPEX projects). As for renewables, we see both short-term and longer-term upsides. The figure below shows the sheer scale of what is required in terms of additional investments in Solar PV and Wind Capacity to meet net-0 targets over the coming decade.



Source: Rystad Energy



Assuming, however, the tailwinds for renewables are compounded by the above base case of higher unit prices in energy due to shifting demand. That is, with the assumption that input costs stay stable, the higher-end prices are effectively an increase in margin. Take, for example, the case of a solar or wind farm; a higher electricity price for the end consumer does not translate into any additional marginal cost and simply adds to the top line. Thus, we could potentially see a longer-term secular growth story in the case of renewables as the cost of capital declines due to policy along with increased margins as the price of energy and substitutes (i.e. fossil fuels) increase.

To Sum Up

We see a secular bull market for energy due to policy intervention. This is across both renewables and traditional sources. The latter is a cash flow story for incumbents, while the former offers a dual proposition for earnings and longer-term growth. The caveat, however, is a less dynamic economy given at least medium-term increases in the price and efficiency of energy generation.

4 STOCKS SET TO BENEFIT

Introduction

We finish the 5 D's by translating our thesis into investable ideas.

ExxonMobil (XOM.NYSE)

Source: The New York Times

NYSE-listed XOM has been a pleasant experience for investors this year in a sea of red, returning above 60% over the past 12 months. Exxon continues in our view to be a reasonable risk-reward proposition assuming our base case scenario of peak oil as the global economy continues its de-carbonisation trajectory. The name of the game here is cashflows.

This is a pure-play exposure to the black gold since the company's strategy has been to steer clear of diverting investment into renewables, unlike its peers, and remain committed to Oil & Gas. While this may not necessarily win the business applause from the ESG-minded investors, the company seems to be ticking the boxes in bringing greater diversity to the board as well as implementing carbon intensity reduction targets.

What is interesting to us about the business is the companies culling of previous aggressive spending plans (to the tune of 30%) annually for 2022-26 while keeping the dividend safe. In essence, this business rather than focusing on new supply has a clear strategy to focus on high-margin volumes such as Guyana, which at peak will produce more than 850 thousand barrels while letting the North American assets decrease gradually. This allows the business to fit in with the notion of taking advantage of higher prices and focusing on cost-outs in preference for returning cash to shareholders.

On the latter front, XOM has set a plan to more than double from 2019 earnings by 2027. Looking downstream to the chemicals segment, margins continue to increase as key catalysts come through for its higher-value lubricants and diesel segments. Looking purely at the numbers, we expect earnings per barrel to increase to $14.50/bbl at $75 USD/bbl, which remains at the lower end of the target price range. This combined with relatively low debt on the balance sheet and CAPEX reductions (net debt/capital under 30%), bodes well for the dividend-oriented investor.

Looking to the future, a reasonable projection for the company that can be achieved is $120 USD per share, assuming a 95 USD/ppb with an EBITDA forecast (at this level) of $85 Billion USD for 2023.

In summary: A concentrated exposure to the spot price and a yield play. We like the fact that the company, unlike many of its peers, is not transitioning to renewables (where it lacks the competence or expertise) or bringing on new production. We think that it pays for shareholders of fossil fuels-based securities to focus on cashflows as the de-carbonisation trend plays out.

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Source: Oil Price

Enbridge (ENB.TSE)

We move next to the TSX-listed Enbridge, again a fossil fuels-based play, which is in the business of pipelines, particularly oil and gas transmission. The firm's most important asset is the Mainline system which effectively controls over 70% of Canada's takeaway capacity linked to the mid-west and US refineries. We will sum it up for those not particularly familiar with midstream or refinement. Pipelines are constructed to take advantage of price differentials between two different regions or hubs. They require the following to be feasible:

1. Long-term contracts with shippers to recover costs.
2. A reasonable tariff that allows the shipper to capture the differential.
3. No competition in the same transport route since a competitor would effectively make both uncommercial.

Once built with significant regulatory oversight, there is a utilities like revenue stream.

In our view, what makes Enbridge quite attractive is its particular focus on Oil sands, which are in high demand given the nature of US refinement capacity and the fact that 80% of her revenues are inflation hedged (if you recollect our view on debasement/inflation). This effectively means that in the short run, we should see continued security in its primary operations while effectively using said cashflows to diversify its revenue base. Its focus now runs into natural gas and a small but growing renewables portfolio and carbon capture. The business remains one of the ESG leaders amongst midstream companies in North America, making it reasonably palatable for the ESG-minded investor while providing a long-term growth trajectory.

The business continues to make prudent long-term CAPEX and seems to be quite aware of the long-term decline in its heavy oil sands exposure, which is particularly carbon intensive. We see the business as sustaining reasonable longer-term organic growth without necessarily having the necessity to go to the market for new capital. However, the firm is at the forefront regarding regulatory uncertainty and is especially susceptible to stakeholder pushback. Recent multi-year efforts to bring line 3 online came after much pushback from indigenous populations, with another line 5 likely to see protracted legal battles. Not to mention the significant history (as is the case with the industry overall) of oil spills and protests regarding the Dakota access lines and the more recent Governor of Michigan revoking a 1953 easement connecting two parts of the great lakes with the Straits of Mackinac.

Numbers-wise, our fair value for Enbridge stands at $55 CAD per share, assuming a 5-7% growth profile with minimal incremental buildout on a scale of Line 3 or 5 and continued debt reduction. The company plans to invest an additional $4 Billion CAD annually across the portfolio for future growth. Most of which we see will go toward renewables, hydrogen, wind and natural gas.

In summary: An excellent hedge against our first D i.e. debasement, given the utilities-like characteristics of earnings with continued future growth (i.e. 7%). That said, the significant risks will continue to be regulatory and stakeholder related.

Advantest (6857.TYO)

Source: JobPlanet

This is one business that many of the readership may be less familiar with so let's give a quick summary of the Tokyo-listed and Japanese headquartered business. Simply put, it is in the business of manufacturing and distributing semiconductor test systems with sector applications ranging from healthcare to nanotechnology. Essentially, the modus operandi ensures that production lines that make DRAM (Dynamic Random Access Memory) and flash memory are working and maximising production yields.

While we remain aware of the procyclicality of the semiconductor industry, we continue to see it as vital not only for the transition to green (i.e. ranging from EVs to the power grid). Moreover, we know the industry as a net beneficiary of fiscal stimulus (as illustrated by our CHIPS and Science Act) and associated tailwinds. Its geographic spread with a supply chain stretching from South Korea and Taiwan to the US should put it in good stead with an increasingly confrontational white house (its China operations being limited in scope). Tailwinds are also provided by the industry's natural evolution, quoting from shareholder communications "Demand for semiconductor test equipment is influenced not only by change in device production volume but also technological evolution trends in semiconductors. Miniaturisation further improve the performance of semiconductors, reduces their power consumption, and increase semiconductor test time and the complexity of functional test processes." The first part is good for users of technology. The second is good for Advantest.

Looking at the numbers, we begin with the most important in our view: the consistently high proportion of its revenue (i.e. 17%) that the business has spent on R&D, which should continue to pay dividends and ensure market leadership. Thus, gross margins remain comparatively elevated at 58.1% (despite higher procurement costs and inflationary pressures), and the company continues to grow across its major divisions (i.e. test components & mechatronic systems). As semiconductor production volumes increase with the wider adoption of EVs, we should see a significant secular upside. For those who prefer rather sticky revenues, the business continues to focus on its maintenance services (i.e. long-term contracts after the sale); the firm now expects to reach the $100 Billion Yen milestone this year. The company retains cash and cash equivalents of $107.5 Billion yen with an attractive PE of 13x. Our fair value remains to the upside at $10 200 JPY per share.

In summary: Fits nicely into a de-globalisation theme, given the businesses' centrality to the global semiconductor ecosystem. Long-term secular tailwind comes from the increased need for semiconductor growth in the growing demand for EVs.

Rio Tinto (RIO.ASX)

Source: Bloomberg

It may sound surprising to the readership that we still remain rather bullish on Rio, given the recent price action around Iron Ore majors recently. But we take a somewhat contrarian perspective around the potential for commodity prices to stay elevated despite slowing economic growth. While the story of Rio's fortunes of recent times has been the story of China and its seemingly insatiable demand for commodities (that particular nation accounting for 65% of traded Iron Ore and 50% of copper), we think this is about to change. To return to the 5 Ds, elevated commodity prices fit into the broader de-carbonisation and de-globalisation impetuses. As nations across the developed world seek to reshore supply chains, we posit that this will place tremendous pressure on ore and copper, Rio's two primary cash earners. We've also seen a surprising lack of foresight in investing in new production over the past decade despite the implications for demand as the rollout of both solar and wind speeds up. For example, copper usage increases by 5-fold in renewable energy systems compared to traditional fossil fuels-based systems. Despite the lacklustre growth in demand from China, at least in the short-run with Emperor Xi's insistence on a 0-Covid policy, we continue to see demand for steel and thus, iron ore continues on its upward trajectory and remain at elevated levels over the medium to long term.

With that background, let's turn to Rio Tinto, one of the world's largest miners operating across a diversified portfolio of commodities, including Iron Ore, Aluminium and Copper. Notwithstanding the businesses torrid history concerning capital allocation decisions during the previous commodities boom, including the now infamous Alcan acquisition and egregiously high capital costs for expansion, the company has seemingly learnt from its mistakes. Notably, the business has focused on capital discipline and high payout ratios, which we should see continue given its now best-of-breed operating costs that make it profitable through the commodity cycle (just in case we are wrong about the secular bull case for commodities). The assets are primarily located in developed North American and Australian jurisdictions, which bodes well within an increasingly fractious geopolitical environment.

Note: The business revenues to the tune of 60% are derived from China but we should see a gradual decline in this percentage.

Getting to the numbers, the company continues to remain on track with production targets being met, with Pilbara production at circa. 84 million tonnes (iron ore) for Q3, with a 2022 production number for iron ore likely to be around 325 Million tonnes. A little more concerning is copper production, given upgrade and refurbishment requirements for US smelters, though we still estimate circa. 720 000 Tonnes for 22. Assuming these numbers and an average Iron ore price of around $90 USD per tonne (which remains on the lower end of our expectations), an aluminium price of $2000 USD per tonne and a copper price of $3.30 per pound, our fair value estimate is $130 AUD per share (this compares with the $94 AUD as at time of writing).

In summary: Rio offers a fantastic opportunity to hedge against inflation, dividend growth, and commodities' secular growth story. The company remains vital to the global transition towards renewables (i.e. decarbonisation) and offers longer-term investors an effective alternative to traditional dividend plays.

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Invest in companies that meet needs not wants, favour profits over concepts, BUT remember that holding too much cash is likely to lose you money in real terms.

Invest in risk assets when it feels most uncomfortable to do so.

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Robert Swift

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