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Investing in the US industrial renaissance

The US economy is amid what some are calling the 'Industrial renaissance'. There are three secular drivers behind this renaissance - the need to rebuild America, the trend towards deglobalisation and the continued transition towards green energy. Here our expert global equities partner, Northcape Capital, examines each of these three drivers and shares their thoughts on how the Warakirri Ethical Global Equities Fund could stand to benefit.

This information has been prepared by Northcape Capital, the underlying investment manager for the Warakirri Ethical Global Equities Fund.

The US industrial renaissance

The US economy is amid what some are calling the 'Industrial renaissance'. There are three secular drivers behind this renaissance - the need to rebuild America, the trend towards deglobalisation and the continued transition towards green energy.

These structural trends have been greatly accelerated by the trifecta of US spending Acts, namely, the Infrastructure Investment and Jobs Act; CHIPS & Science Act; and the Inflation Reduction Act.

Together this trifecta of Acts represents a massive once-in-a-generation investment not seen since the 1950s. The US is in the early stages of implementing these "mega projects" around the country. We believe these projects are long in duration, high in value and economically insensitive compared to traditional non-residential projects.

The Trifecta of US Federal Fiscal Stimulus Acts

An 'Industrial spending renaissance' is a period where there is a significant increase in investments and spending in the industrial sector.

In an effort to 'rebuild America' and increase domestic production, **the US recently passed into law three major US federal fiscal spending acts totalling US$1.85tn** with additional private sector spend expected on top. To give a sense of scale, a $2tn spend represents 7.5% of current US annual GDP!

What are the 3 Major Spending Acts?

1) Infrastructure Investment and Jobs Act (IIJ Act):

This bipartisan Act was signed into law in November 2021 with projects commencing in 2023. It commits $1.2 trillion of spend comprising $650bn of baseline federal investments into infrastructure already planned (roads, rail, bridges, grid, utilities etc.) and an incremental $550bn in new project spend.

2) CHIPS & Science Act (CHIPS Act):

Another $250bn bipartisan Act was passed into law in August 2022 to progress the R&D of American semiconductors and increase high-end semiconductor manufacturing capacity by the building of new plants to reduce reliance on high-end chip manufacturing overseas (Taiwan and South Korea).

3) Inflation Reduction Act (IRA):

Signed into law in August 2022, this Act focuses on climate and energy initiatives. With $400bn directed to fund a broad set of clean energy production and manufacturing products via tax credits. This policy is the most significant action Congress has taken on clean energy and climate change designed to ensure energy security.

US IIJA, CHIPS Act & IRA potential non-resi investment impact

	Announced	Potential investment impact	Already allocated / started	Remaining
	US$ bn	US$ bn	US$ bn	US$ bn
Infrastructure				
Roads & Bridges	**110**	**110**	**42**	**68**
Water / Sewer / Environmental	134	134	17	117
Rail, Transit & airports	161	161	17	144
Electric Power / grid	81	81	6	75
Broadband	65	65	3	62
Total	**550**	**550**	**85**	**465**
CHIPS				
Semi manufacturing	53	53	45	8
Tax credits for chip production	24	96	0	96
STEM , R&D workforce & economic development	202	0	n/a	n/a
Total	**278**	**149**	**45**	**104**
IRA				
Energy	251	251	42	209
Manufacturing	48	48	0	48
Environment	46	46	0	46
Transport & Electric Vehicles	23	23	0	23
Agriculture	21	21	0	21
Water	5	5	0	5
Total	**394**	**394**	**42**	**352**
Grand Total	**1,222**	**1,092**	**172**	**920**

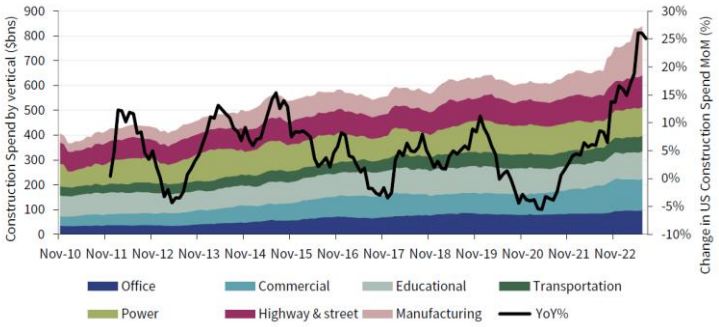
Source: www.whitehouse.gov, Redburn Atlantic

What are the "mega projects" and their impacts on construction?

US non-residential construction activity has seen a material uplift, driven by a wave of new project starts, which began around mid-2022. The value of projects started over the last 12 months is +28% YoY and +9% YTD.

What is evident is the material increase in manufacturing construction spend as well as the commercial construction spend, albeit to a lesser extent.

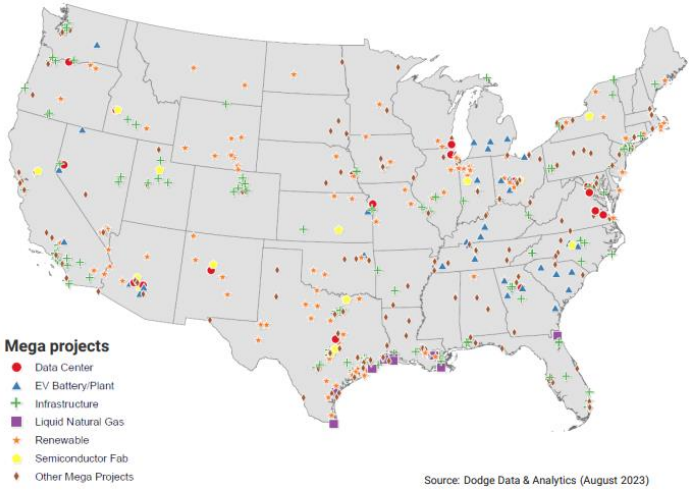
US Non-resi/Non-building construction activity by vertical (includes full value of each project as it starts):



Source: US Census Bureau, Redburn Atlantic

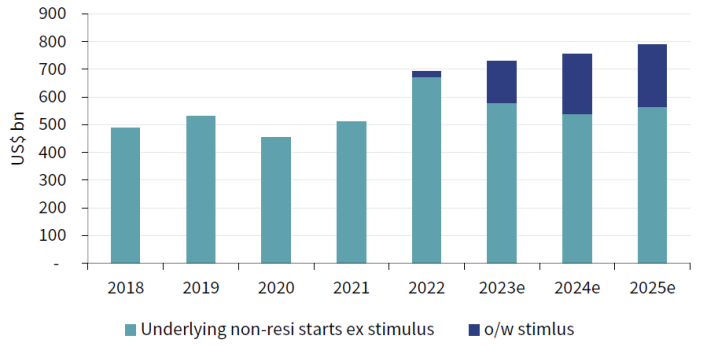
The geography of mega project starts has been broad across the US with the map below highlighting projects worth over $660bn.

Started and planned projects from May 2021 through April 2024



While there has been concern around the non-residential construction cycle given slowing economic growth, the US regional banking crisis and the office sector going through a world of pain due to work-from-home trends, it is projected by Dodge construction that the three Acts should be enough to make up the gap to grow non-residential construction starts out to at least 2025.

US Non-resi construction. Stimulus-led project starts.



Source: Dodge Construction, Redburn Atlantic

With the 'Industrial renaissance' underway, we will explore the three secular drivers these spending Acts are accelerating, as well as how investors could benefit.

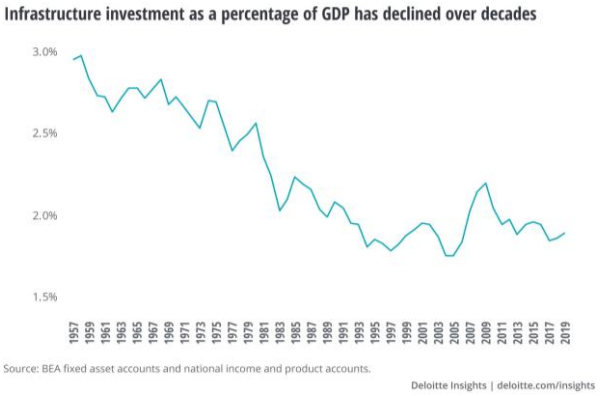
What are the risks?

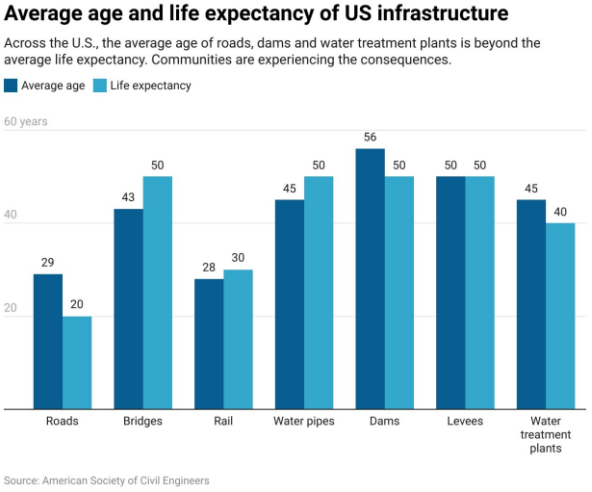
As with every investment opportunity, there are always risks to delays and cancellations. At the policy level, it is only the IRA that is not bipartisan, with the Republicans unhappy with the lack of accountability on the spending along with it having little impact on reducing inflation. Senator Capito mentioned in the Senate GOP leadership press conference that 60% of the tax credits available under the IRA are going to companies that are not American, helping to grow the workforce overseas at the expense of American jobs and $8bn of tax credits have already gone out to companies with a China affiliation. Therefore, there is a risk that the Republicans could attempt to repeal the IRA if they controlled more chambers or at the very least push for greater accountability given a disproportionate number of Republican states benefit from the IRA.

1. Rebuilding America

America has been underinvesting in its infrastructure for decades. It is perhaps no surprise that much of the US public infrastructure is now close to, or in many cases in excess of, its useful life. The chart below shows how after a period of strong investment in the 1950's-70s US infrastructure spend has steadily declined.

The American Society of Civil Engineers (ASCE) in their recent infrastructure report card cited 42% of US bridges are at least 50 years old and 7.5% are in poor condition.





In our recent visits to the US this underinvestment was visible. Take the main airports of two US gateway cities, Los Angeles and New York, parts of the airport are like travelling back in time. Contrast this with Singapore's Changi airport, where it feels like you are stepping into the future. This is just one of a myriad of examples that can be observed as frequent visitors of the US.

The IIJ Act represents the largest modernisation of US infrastructure spending since the decade of 1956-1966 when the US built the Eisenhower Interstate System. This was revolutionary at its time, as it provided a vital link for connecting goods to markets and increasing mobility of people from cities, towns and rural communities.

The Eisenhower Interstate Highway system was one of the greatest public projects in history providing vital links for supply chains across the US.

We believe the larger equipment rental companies like Ashtead (AHT) and United Rentals (URI) – both held in the portfolio - could be expected to win around double their industry market share. This is because the larger equipment rental companies have the financial capacity, depth and breadth of fleet available, and the latest technology and dedicated teams to serve large national contractors building these projects.

As an example, AHT's CEO mentioned that a semiconductor plant of $5-10bn in cost would require around $100m worth of rental fleet. Typically, only the largest equipment rental companies will be able to support the scale and demands of these mega projects.

Assuming a conservative 2% of construction spend goes towards rental equipment and double the market share for AHT and URI for these mega projects translates into an incremental $8.2bn of revenue over a 5-year period for URI and $6.2bn for AHT respectively, which is +12.4% on a trailing twelve-month revenue basis for each. Based on 5 year forward cumulative revenue estimates, this could represent an incremental uplift of around 10% for both AHT and URI.

2. Deglobalisation: Transitioning from "globalisation" to "reshoring"

After the cold war in the early 1990's, countries across the world began to build economic partnerships to bring cross border trade in goods and services. This trend towards 'globalisation' has been in place over recent decades where major businesses moved supply chains further out to countries with cheaper labour costs in the main pursuit of lowering production costs along with reducing inventory levels in the supply chain from just-in-time manufacturing. This philosophy works well in a stable geopolitical environment.

However, with the election of Trump in 2017, the US began to shift its view on 'globalisation' in a move towards 'deglobalisation or reshoring' with his "America First" policy during his term from 2017-2021. Imposing tariffs on certain Chinese goods was the first step in shifting supply chains. America encouraged factories and jobs to be created onshore.

Further, the US and China's tensions morphed into a technology war, in a battle for leadership in next generation technologies like Semiconductors, Artificial Intelligence and 5G. The US has been increasingly blocking China's access to their developed technologies as these tensions continue to rise. Since then, China has doubled down on its efforts to "de-Americanise" its supply chains.

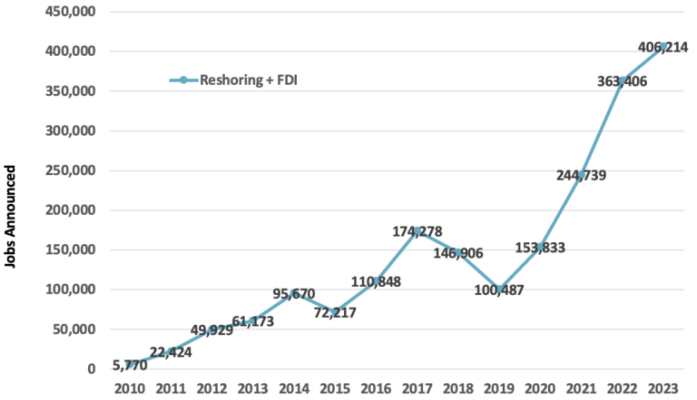
Then came the pandemic and the US's reliance on China was evident for many things such as rare earths to crucial medications such as antibiotics. President Biden issued an executive order to review US supply chains for core products like chips, rare earths, medical supplies, and batteries.

Following the demand and supply shocks that resulted from the Covid pandemic, global demand was restored through 2020 as economies started to reopen. The degree of global supply chain interconnectedness and reliance thereof became obvious as companies were faced with significant supply chain bottlenecks and unable to meet demand. This exposed vulnerabilities in production with raw material shortages, severely delayed manufacturing lead times and transportation challenges. This triggered companies across the globe, including many US-based, to reconsider their supply chain strategies with many focusing efforts to migrate manufacturing back onshore.

A key metric to help visualise the impact of this reshoring structural trend which commenced since 2017, is the number of jobs created per year in the US for positions that were previously held in other countries.

The chart below highlights the acceleration of reshoring jobs since 2017.

Manufacturing Job Announcements per Year, Reshoring + Foreign Direct Investment, 2010 through to 2023 (projected)



Source: Reshoring Initiative ® 2023 Q1 Data Report (reshorenow.org)

1. Opportunities from increasing supply chain complexity:

This increase in supply chain and manufacturing complexity across more countries and operations, along with greater demands on supply chain transparency from ESG requirements should benefit our portfolio holding Intertek (ITRK) which is a global leader in the Assurance, Testing, Inspection and Certification (ATIC) industry. It is becoming harder for companies to conduct their own ATIC due to increasing supply chain complexity and increasing pressure for independence in supply chain reporting.

With operations in over 100 countries and over 1,000+ labs and offices, Intertek is well placed to meet the ATIC needs across a variety of industries.

2. US and China technology war:

Chips have emerged as the lifeblood in the modern world. One could draw analogues of chips being the new oil - a scarce resource the world needs. This was made clear during the pandemic when chip production was impacted, resulting in shortages of a wide variety of goods from smartphones to cars.

China is investing heavily in chips as their number one industry focus in an effort to catch up to the US. The importance of this technology superiority extends not just to the economy but also to military superiority.

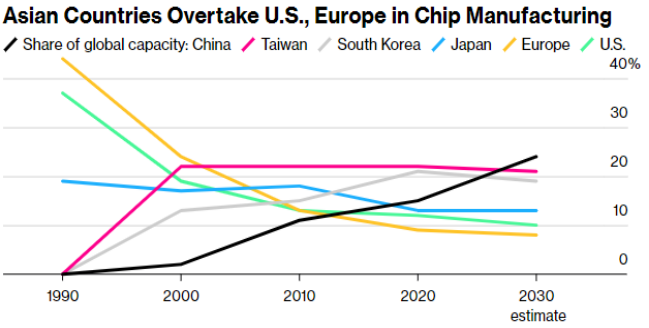
By enacting the CHIPS Act, the US has attracted investment in semiconductor production and innovation to the US which should help achieve progress towards multiple goals such as onshoring, maintaining technology superiority and job creation.

The US used to be a dominant chip manufacturer but has lost ground to China, South Korea, and Taiwan over the past 30 years. TSMC's investment for its new Arizona chip plant is a step in the right direction to cultivate advanced chip manufacturing in the US with TSMC investing US$40bn on these chip plants, more than doubling from its initial investment of US$12bn. This is a small initial step, reversing the trend in recent decades of advanced chip manufacturing moving to Taiwan and South Korea.

TSMC's Arizona chip plant under construction

Source: Taiwan Semiconductor Manufacturing Co.

There have been 4 semiconductor chip fabs that commenced construction in 2023 totalling $30bn in starts and another 5 fabs forecast to start in 2024 totalling $23bn. These fabs are being built by Intel, TSMC, Samsung Electronics and Texas Instruments. A material beneficiary of this capex spend is ASML Holding (ASML) which is on our Approved List, as the de-facto monopoly supplier of EUV and DUV lithography machines, which print the chip patterns on silicon wafers and is the most complex part of the chip making process.



Source: Semiconductor Industry Association/Boston Consulting Group Report

With a chip making renaissance occurring in the US, it results in more demand for ASML's equipment over and above its current two largest customer countries being Taiwan and South Korea.

Having more chip fabs located around the world requires a net increase in the number of ASML's EUV and DUV machines installed, rather than just purely shifting geographic demand from one place to another.

3. Green Energy Transition

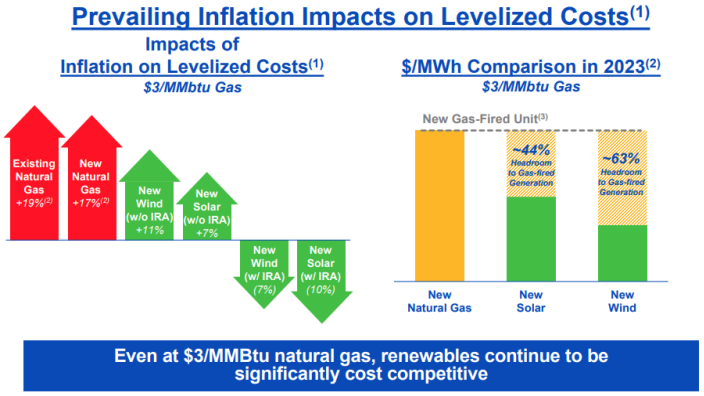
Renewable energy component manufacturing is a key industry of the future with a growing global effort towards net zero greenhouse gas emission targets. Greater renewable energy production is in-line with the Biden administration's clean energy and climate change goals. The IRA helps the US invest to build up local renewable energy manufacturing capacity and encourage the installation of renewable energy.

China has been doubling down to ensure it is the largest supplier to the green energy industry globally, supplying low-cost solar cells, inverters, and batteries. The US has retaliated somewhat with bans on solar cells made from the Xinjiang region which has allegedly used forced labour.

Portfolio holding Enphase Energy (ENPH) and Approved List stock SolarEdge Technologies (SEDG) are beneficiaries of the growth in renewable energy in the US (and Europe) through the manufacturing tax credits they receive for solar inverters. These tax credits make the US one of the cheapest countries for these companies, and their contractors, to manufacture in.

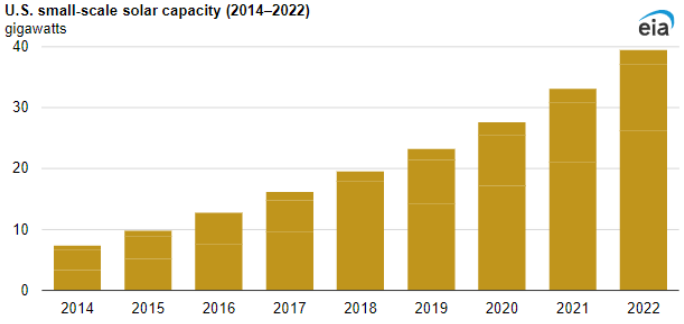
The IRA provides material support for renewable energy, battery storage, electric vehicles, and clean hydrogen. It has further widened the levelized cost of energy (LCOE) in favour of renewables over new gas-fired power plants, increasing the competitiveness of renewables. Nextera Energy estimates that new solar and wind projects inclusive of the IRA benefits are 44%/63% below the cost of new natural gas power plants per MWh of power. This provides an enduring structural tailwind for utility-scale solar installations.

The IRA has shifted up the utility-scale solar demand curve and in 2023 over half of new US electric-generating capacity will be solar.



Source: Nextera Energy June 2023 investor presentation

The IRA also extended the federal solar investment tax credits for residential at 30% until 2032 (from 2024) and a phase out period to 2034. This is a material long-term tailwind that should help the continued penetration of household solar in the US, which is currently only around 5%. This tax credit combined with rising utility bills, grid instability and falling costs of solar systems are compelling reasons for households to continue adopting solar. That said there will be bumps along the way as we are seeing currently with high interest rates impacting residential installation rates in the short term.



Source: US Energy Information Administration

ENPH and SEDG benefit from the increased adoption of solar and battery storage. They share a strong duopoly position in US residential solar inverters with a 90% market share between them and have been expanding the inverter product range to the commercial segment, SEDG has also been expanding into smaller utility scale projects.

Both companies have also added battery storage products for residential use which should be a growing market as the economics improves given the rapid decline in battery costs in recent years due to technological developments.

On the regulatory side, California which is the largest state for roof top solar, transitioned their Net Energy Metering (billing mechanism that credits solar energy system owners for the electricity they sell back to the grid) regime to NEM 3.0. It greatly reduces the rates (by 75%) that new solar customers receive from selling energy back to the grid.

The implication of this is that having battery storage with new rooftop solar systems now becomes much more economical, because the energy generated during the day can be stored and used at night during peak rate hours. For solar only systems, the payback period is pushed out from around 4-5 years to around 7-8 years under NEM 3.0 while solar and battery storage systems reduce that payback back to around 5-6 years with a large enough battery system.

Conclusion

Bolstered by incentives from the trifecta of US spending Acts, current legislation is catalysing investments into the US economy driving stronger competitiveness, innovation, and industrial productivity.

The secular trends observed above are setting the stage for the next era of manufacturing strength in the US and the consequential emergence of mega projects across the country. These projects are long in duration, high in value and economically insensitive compared to traditional non-residential projects, and in our view will provide an attractive tailwind to growth over the coming years.

For more information, please contact us on 1300 927 254 or visit warakirri.com.au