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A new capex supercycle: driving powerful and transformative growth

Contents

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The fast view

- Over the next decade a combination of the energy transition, nearshoring, geopolitics, demographics, technology, and public investment spending could trigger a capex supercycle that would see capex growing 2-3 percentage points faster than global GDP. This surge would represent an additional US$2.5 trillion per year in a base case and US$5+ trillion in a high-spend scenario.

- This supercycle is likely to be larger than many investors are anticipating.

- Historical evidence suggests that a capex boom is likely to lead to higher investment and growth but is unlikely to lead to an immediate productivity boom.

- This will result in very different market leadership to the last cycle, which is not well understood by all market participants.

- Stock beneficiaries are not restricted to the US but are spread across geographies and are primarily in physical asset intensive areas of industrials, resources and utilities, sectors that lagged or tracked the market in the post-GFC period. Both developing and emerging markets are likely to benefit.

In this report we look more closely at this cycle, its historical context, its drivers, likely beneficiaries, and what it means for investors.

A structural shift in capex

In a seminal speech in the autumn of 2013, former US Treasury secretary Larry Summers stirred widespread discussion when he declared that the world's advanced economies were in a state of secular stagnation. In other words, satisfactory growth could only be achieved through unsustainable financial conditions[1]. In 2017, he cautioned that secular stagnation might emerge as the predominant macro-economic challenge of our era.

The solution, he proposed, was for governments to urgently ramp up infrastructure spending. Now, after a decade or more, the world stands on the cusp of a global capital expenditure supercycle.

We calculate that transformative macro-economic trends will drive global capex by an additional US$2.5 trillion per year in a base case scenario and US$5 trillion in a best case scenario. This translates into a projected 12-24% increase in annual global gross fixed capital formation by 2030, based on conservative estimates.

What is capex? And how is it measured?

Capex, or capital expenditure, refers to investments in long-term fixed assets aimed at fostering growth.

- GFCF (gross fixed capital formation) encompasses land improvements, purchases of plant, machinery, equipment, and the construction of various infrastructure such as roads and railways, as well as buildings like schools, offices, hospitals, private residences, and commercial and industrial structures.
- PNRFI (private non-residential fixed investment), a common US measure, represents private-sector investments in fixed assets excluding residential properties.
- While GFCF includes both public and private investments, PNRFI focuses solely on private investments.
- The ideal measure of capex for the purposes of thinking about the drivers we are discussing may exclude residential investment and intellectual property and focus instead on structures and equipment, while retaining public investment in these areas. This approach aligns with expectations of significant spending driven by decarbonisation, reshoring, and defence initiatives. However, through the document we have largely retained conventional definitions.

1. https://larrysummers.com/2017/06/07/secular-stagnation/.

Past capital expenditure cycles in perspective

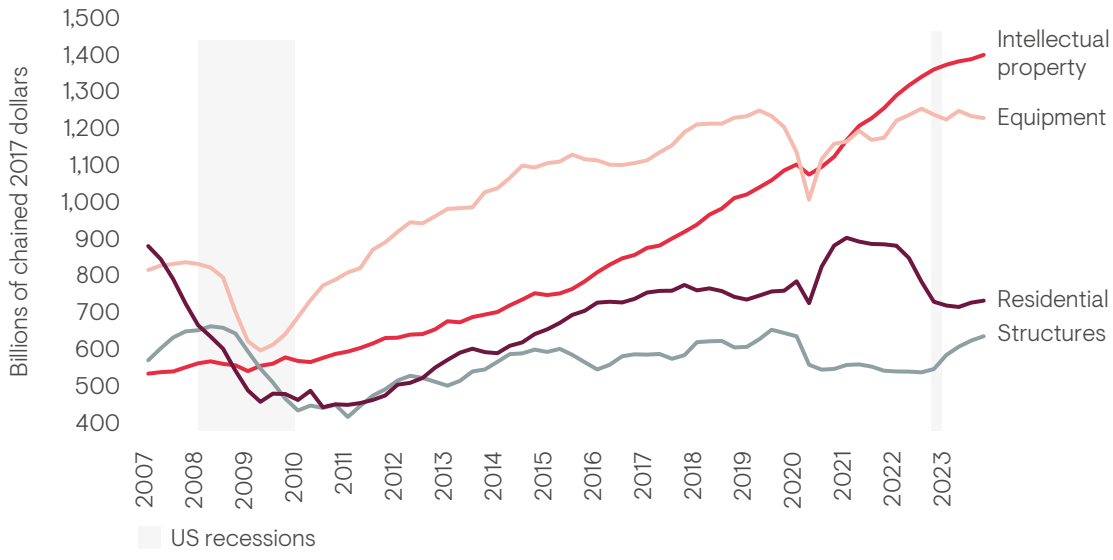
To contextualise the potential supercycle, it's helpful to situate it within a historical perspective. We've identified six significant capex cycles since 1945, measured by five-year rolling periods when private non-residential fixed investment (PNRFI) surpassed trend GDP. Each cycle was propelled by a singular catalyst, such as military spending during and after WWII, which was succeeded by a post-war baby boom and rapid technological advancements in the 1950s and 1960s.

However, despite these promising beginnings, capacity utilisation in US manufacturing never regained the heights seen in the 1960s. One contributing factor was the offshoring of production by US and European companies, which led to an investment boom in Asian economies, accelerated by China's 2001 accession to the World Trade Organisation.

While offshoring was good for corporate profits, it was bad for US jobs. Moreover, the 2008 crisis ushered in a business cycle characterised by low economic growth, low inflation, low capital deepening, narrow innovation and low productivity. Uncertainty and risk aversion led companies to prioritise just about everything but reinvesting for growth. Share buybacks, dividends and M&A growth all exceeded capex.

Furthermore, the composition of capex has undergone significant changes over time. Traditionally capex is categorised into equipment, intellectual property (IP), and structures. A glance at the chart below illustrates the shifting trend over time. Two decades ago, equipment dominated investment, whereas IP investment has surged ahead in recent years.

Figure 1: Intellectual property investment vs. structures and equipment



Source: US Bureau of Economic Analysis.

The drivers of a new capex cycle

The notion of a new capex cycle may seem counterintuitive as interest rates reach multi-decade highs. However, a multitude of structural factors have come together to drive this cycle, including the drive towards net zero, efforts to enhance supply chain resilience, growing geopolitics, government stimulus and infrastructure expansion across the developed and developing world.

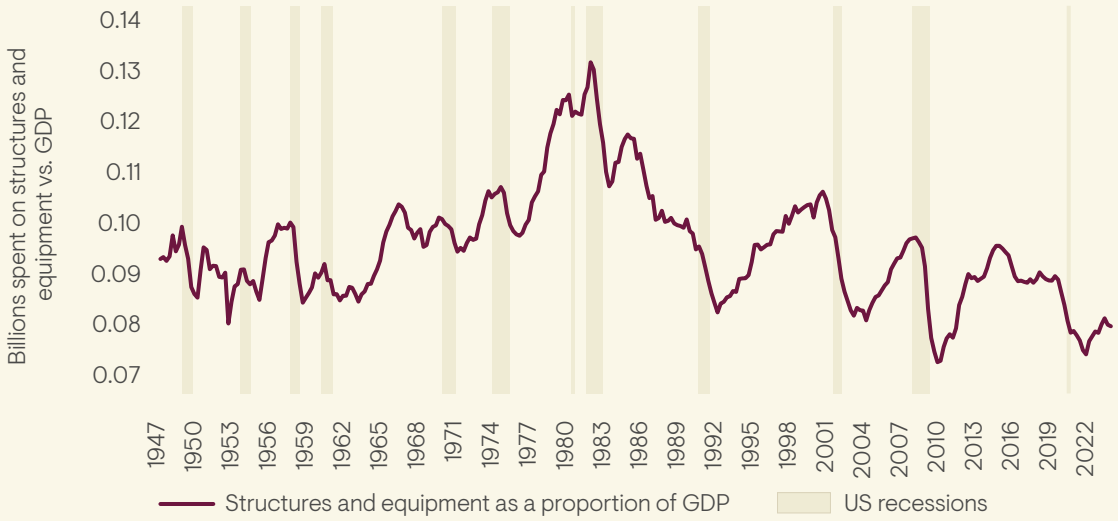
The move toward a **green economy** is the largest component of increased infrastructure investment. Climate research organisation, BloombergNEF forecasts that under stated policies and net-zero scenarios, investment spending will reach between US$2 trillion and US$4.5 trillion per annum, by 2030. Of this, the largest investments will be made into upgrading grid infrastructure.

To support the transition, investment in mining, particularly in copper, diamond, lithium and diversified miners, will need to expand.

Ageing infrastructure (in the US and in the emerging world) – which includes roads, railways, electrical grids, and the internet – struggles to meet the demands of a modern economy. It may seem inconceivable for the world's largest economy, but a closer look shows the stark reality: California's power grid almost collapsed in 2022; US pipes give rise to a water leak every two minutes; more than 45,000 bridges and one in almost two miles of road are in poor condition, according to The American Society of Civil Engineers (ASCE).

The ASCE puts the infrastructure investment gap at nearly US$2.6 trillion this decade and warns that failure to address this could lead to a US$10 trillion loss in gross domestic product by 2030[2], and cause the US economy to fall behind other global competitors.

Figure 2: US private non-residential fixed investment (1947-2023)



Source: US Bureau of Economic Analysis.

2. The state of US infrastructure.

The challenge is not contained to the US. In India, for example, the ambitious National Infrastructure Plan aims to inject US$1.4 trillion into various sub-sectors by 2025, including energy, roads, railways, and urban development. China and Nigeria have similarly aspiring plans underway.

Furthermore, the **reshoring of global supply chains**, a reversal of the decades-long trend of companies relocating their manufacturing operations offshore to optimise costs and boost margins, is driving a significant shift in expenditure. For instance, retail giant Walmart stepped up its 'Made in the USA' promises in 2021, pledging US$350 billion of additional support for American manufacturers over the next decade, in fact during the first quarter of 2023, mentions of reshoring during S&P 500 earnings calls were up 128% according to Bank of America.

This transition is further supported by industrial policy, evident in landmark legislation such as the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act. In Europe we saw the introduction of the EU Green Deal.

Meanwhile **military spending**, which had halved globally since 1970, is back on the rise. The Ukraine conflict kickstarted the end of the 'peace dividend'. Projections indicate that in Europe, annual defence spending in 2028 will surpass pre-invasion levels by about €100 billion in real terms. Similarly, outside of Europe, annual defence spending by 2030 is forecast to be roughly US$200 billion higher than pre-invasion estimates[3].

Whether this spending will be realised remains to be seen. It is not just about spending, but about technical and organisational ability, badly eroded in recent years. But the direction of travel is up, and the numbers could well be higher. If NATO countries that spend less than 2% of GDP a year met that level and the remainder increased spending by half a percentage point of GDP, global defence outlays would rise by US$700 billion a year[3].

Another thing to think about is the growing number of **natural disasters and severe weather events**, like fires, drought, and floods. In addition to the devastating human impact, these events will take their toll on corporations. As is powerfully communicated in the paper Why corporates must act now, natural disasters could materially impact upon the reliability of physical assets, the productivity of labour, the costs of production, or demand, and on supply chains. Since 2017, these disasters have cost about US$110 billion annually, and it looks like by 2030 these figures could reach between US$160-US$190 billion[4].

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3. The Cost of the Global Arms Race, The Economist, May 23, 2023.
4. Swiss Re Institute.

The global decline in the working-age population is leading to a **structural labour shortage**, forcing employers to substitute labour for capital. In response companies have invested in automation to improve processes, boost productivity, and reduce the need for unskilled labour. Anyone watching cricket at Old Trafford recently would have seen the 'EBars' vending machines pouring pints at the touch of a button – replacing the need for bartenders[5]. This is driving the growth of the robotics market, projected to reach roughly US$140-US$222 billion annually by 2030, with factory automation (excluding robots) contributing an additional US$60 billion per annum by 2027.

Technological development particularly in AI is fuelling investment, **with AI data centre expenditures** projected to soar by a breathtaking US$100 billion per annum by 2027. For example: Bulk Data Centers, a Nordics-based provider, has begun building a new 42MW facility scheduled for completion this year (2024). This follows the launch of a 12MW data centre in 2023, which is already fully contracted[6].

Figure 3: Planned expenditure

Item	Capex addition
Decarbonisation	9% to 18% additional to global GFCF
Mining (energy transition)	0.05% of global GFCF (incl. copper)
Climateflation	0.2% to 0.32% additional to global GFCF
Defence spending	1.2% to 2.8% additional to global GFCF
Demographics	0.8% - 1.1% of additional global GFCF
Technology - AI	0.4% of additional global GFCF
US public infrastructure	0.9% of additional global GFCF

Source: Ninety One research.

The above figures are estimates; however, the case is clear: Overall, we are expecting a 12.5% to 24% increase in global gross fixed capital formation (GFCF) by 2030, or 2% to 3% faster than GDP as a base case.

5. https://www.vendingtimes.com/news/beer-vending-machines-debut-in-the-uk/
6. Intelligent Data Centres.

Capex, productivity and AI's role in the next cycle

At this juncture, a quick aside on the current AI hype cycle. While everyone is excited about generative AI, hype doesn't immediately translate into solid productivity or revenue gains. While capex cycles that diffuse general purpose technologies (such as AI) often lead to significant productivity enhancements, these typically come with a lag.

The examples of electricity and computing make the point. It took almost 45 years from the invention of electricity in the 1800s for it to significantly influence society. As the technology became more affordable and user-friendly, its adoption became widespread. This period, from 1929 to 1941, was hailed as the most 'technologically progressive' in US economic history. Similarly, with computers, it wasn't until 1995, 27 years after the introduction of the first mass-market computer, that both growth and productivity began to shift notably.

The gains also depend on whether we use technology to pursue labour saving productivity improvements or whether we use technology to provide consumers with leisure products, as flagged by historian Robert Gordon.

What a new capex cycle means for investors

This next supercycle is likely to be larger than many investors are anticipating. We believe we're looking at an economic transformation, which may mean that the old investing playbooks may not work. In fact, investors accustomed to benefiting from passive index exposure and a US Federal Reserve eager to prop up the stock markets could be disappointed in this new era. Rather than the tech monopolies of the post-financial crisis period of secular stagnation, the winners in this world are likely to look very different to those of the last cycle.

Key beneficiaries include companies across range of different industries

- Semiconductor manufacturing
- Factory automation
- Construction and engineering
- Renewable energy producers and electric grid infrastructure
- Electronic components and equipment
- Metals and miners
- Defence

Based on these categories, it becomes clear that the capex tailwinds described extend beyond the US. Relative to current revenues, largest potential impacts are in the UK, Japan and Europe. However, the US and Asia are also bases for advanced manufacturing companies and we expect to see growth in these regions. The UK and EM ex-Asia are equity markets with highest exposure to beneficiaries in resources and utilities.

Already we can see how these capex trends are causing growth to shift upwards for a key set of exposed companies.

Figure 4: Company examples where we might see a step change in growth

Industry	Company	Description	Pre-COVID organic growth	Forward targets organic growth
Automation	Rockwell Automation	US provider of automation tech	2%	5%-8%
Construction materials	CRH plc	Product supplier to the construction industry	4%	5%-9%
Defence (EU)	Rheinmetall	German automotive and arms manufacturer	3%	18%
Defence (Global)	BAE Systems plc	UK arms and aerospace company	0%	5-7%
Design engineering	Jacobs	US engineering and services company	3%	6-9%
Electrical	Rexel	French supplier of electrical products (RE and other)	1%	4-7%
Electrical, Automation	ABB	Power and automation engineering firm	1%	5-7%
Electrical, Automation	Schneider Electric	Process and energy technologies	2%	7-10%
Heating, ventilation, air conditioning (HVAC)	Carrier	US-based intelligent energy and climate solutions	4%	6-8%
Insulation	Kingspan	Dublin-based supplier of products for energy-efficient buildings	4%	5-10%
Manufacturing, mining equipment	Sandvik	Swedish engineering firm in the mining and metals industry	1%	7%

No representation is being made that any investment will or is likely to achieve profits or losses similar to those achieved in the past, or that significant losses will be avoided.
This is not a buy, sell or hold recommendation for any particular security.
Source: Ninety One research and company reports.

In conclusion

As economist John Cochrane recently pointed out, narratives precede formal analysis. In this piece we explore a scenario that appears increasingly probable for the global economy.

The narrative suggests that the global economy may be on the verge of a capex-driven and resource-intensive cycle that will usher in a different market leadership to the last cycle. Should capital expenditure surpass previous levels due to the thematic drivers we've examined – such as the green transition and defence spending – it would profoundly impact sectors of the equity market exposed to these tail- and headwinds. Moreover, it would influence the broader macroeconomic landscape, potentially spurring higher inflationary impulses and sustained increases in bond yields at cyclical peaks.

Our research suggests the structural thematic drivers outlined here are durable, substantial, and are likely to play out over many years. While the impact on productivity may take time to materialise, the changes are palpable and poised to exert a tangible influence.

Important information

This communication is for professional investors and financial advisors only.

The information may discuss general market activity or industry trends and is not intended to be relied upon as a forecast, research or investment advice. The economic and market views presented herein reflect Ninety One's judgment as at the date shown and are subject to change without notice. There is no guarantee that views and opinions expressed will be correct and may not reflect those of Ninety One as a whole, different views may be expressed based on different investment objectives. Although we believe any information obtained from external sources to be reliable, we have not independently verified it, and we cannot guarantee its accuracy or completeness (ESG-related data is still at an early stage with considerable variation in estimates and disclosure across companies. Double counting is inherent in all aggregate carbon data). Ninety One's internal data may not be audited. Ninety One does not provide legal or tax advice. Prospective investors should consult their tax advisors before making tax-related investment decisions.

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