

An aerial photograph of a storm surge, showing swirling, turbulent water in shades of teal and blue. A white grid pattern is overlaid on the lower-left portion of the image. In the bottom right corner, a gnarled, weathered tree trunk is visible. The text 'The storm surge surfer.' is written in a white, serif font, following the curve of the central vortex.

The storm surge surfer.

CHINA'S BID FOR GLOBAL POWER, CLIMATE CHANGE AND THE TRANSITION AWAY FROM FOSSIL FUELS ARE THREE OF THE DEFINING MEGATRENDS OF OUR TIME.

Collectively, they promise generational upheaval. But decades of peace and stability have left markets, politics, economies and societies complacent and vulnerable. It's going to get bumpy.



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ORACLE, ARIZONA, IS HOME TO BIOSPHERE 2. THIS CONTROLLED ENVIRONMENT, RUN BY THE STATE UNIVERSITY, FOCUSES ON CLIMATE CHANGE RESEARCH.

Sealed glass spanning three acres houses a wide variety of plants. Shielded from the elements, the flora grows unnaturally fast. But this experiment revealed something unexpected. Starved of wind, the trees failed to develop the strength required to fully mature, instead collapsing under their own weight.

In the wild, that strength comes from 'reaction wood', which grows in response to physical stress. In Biosphere 2, no wind means no resilience.

For decades, financial markets, economies, politics and societies have evolved in their own controlled environment. Long-term megatrends have driven inflation, interest rates and volatility ever lower. In the

absence of headwinds, debts and asset prices have grown too tall, too fast.

Like sheltered trees, markets can collapse under their own weight. At least as great a challenge, however, comes when a controlled environment ends.

In recent years, we have argued that this transition will bring higher volatility and inflation driven by factors including the return of big government, the politicisation of central banks, demographics, geopolitics and climate change. And now covid-19 is acting as an accelerant.

Three powerful winds are picking up: China's bid for global leadership; environmental volatility; and the energy transition. And they are likely to unleash a series of storms, exposing a global lack of financial, political, economic, cultural and environmental resilience.

AMERICA AGAINST AMERICA

Developments in Beijing and Washington over the past year point to a new, more intense phase of Cold War II, with major implications for capital flows.

To understand why, we turn first to the work of Wang Huning, China's foremost intellectual and the eminence grise of China's Politburo Standing Committee.¹

Wang's views, informed by his time studying in the US in the dying phases of the last Cold War, are representative of much of the Chinese Communist Party (CCP) elite. They run something like this...

Politics exists downstream of culture. The radical individualism in America today corrodes society's foundations by destroying the shared values and narratives a society needs to function. Worse, the West's democratic system robs it of the tools to address its political

“The fall of the Soviet Union offered the CCP a lesson in what liberalisation could do to a party-state.”

in-tray, especially the growth of vested interests.

Seen from Beijing – with its traditional emphasis on harmony and order above everything, including economic growth – the political and moral chaos across the West today derives from hyper-liberalism, exacerbated by significant wealth inequality.

From this perspective, America is an ailing hegemon in a state of decadent decline, suckered by a long peace and, in Joe Biden, led by a president who is entropy incarnate: politically, mentally, physically.

After decades of exposure to foreign culture and market dynamics, Beijing is concerned that the West's pathologies are taking root in China. For investors, this includes what President Xi Jinping describes as the “disorderly expansion of capital” and the “barbaric growth” of internet platforms – code for any economic power which threatens the CCP.

The fall of the Soviet Union offered the CCP a lesson in what liberalisation could do to a party-state. Xi has said that the USSR fell because no-one was “man enough to stand up and resist”.² Now Xi's CCP is standing up and resisting.

3 The Guardian (Sep 2021)
 4 The official title of the History Resolution is 'Resolution of the CPC Central Committee on the Major Achievements and Historical Experience of the Party over the Past Century'
 5 Doshi (2021), The Long Game

PLAN XI: ORDER VERSUS CHAOS

The CCP's solution is to offer order in place of US chaos by strengthening China's party-state, while bolstering social cohesion via more equitable income distribution and reinforcing cultural unity via shared narratives and values.

Together, these provide the foundation for decisive action in the age of 'great changes' (Xi's euphemism for strategic opportunities afforded by American decline).

Overlapping regulatory and political crackdowns bear witness to the reinvigorated party-state at work. Take the evolving 'common prosperity' agenda with its focus on reducing economic inequality through compelled charity. Or the public morality campaign against "vulgar and [rather marvellously] kitsch inferior tastes, and... the decadent ideas of money worship, hedonism, and extreme individualism".³ Part of the CCP's effort to win the global battle of ideas with the West, these sentiments were reinforced in the seminal resolution on CCP history ('History Resolution') passed at 2021's Sixth Plenum.⁴ It confirmed Xi as 'core' leader and his ideas as central to party policy, boosting his chances of an extended reign (in time, perhaps with Mao's title of Chairman).

Such policies also reflect a desire to channel financial capital away from 'nice to have' internet platforms and into 'must have' CCP priorities: cutting-edge hard tech in areas such as semiconductors, electric vehicles, batteries, artificial

intelligence (AI) and biotech. Additionally, Beijing is reprioritising non-financial forms of capital including political (CCP authority), cultural (public morality) and human (demographic).

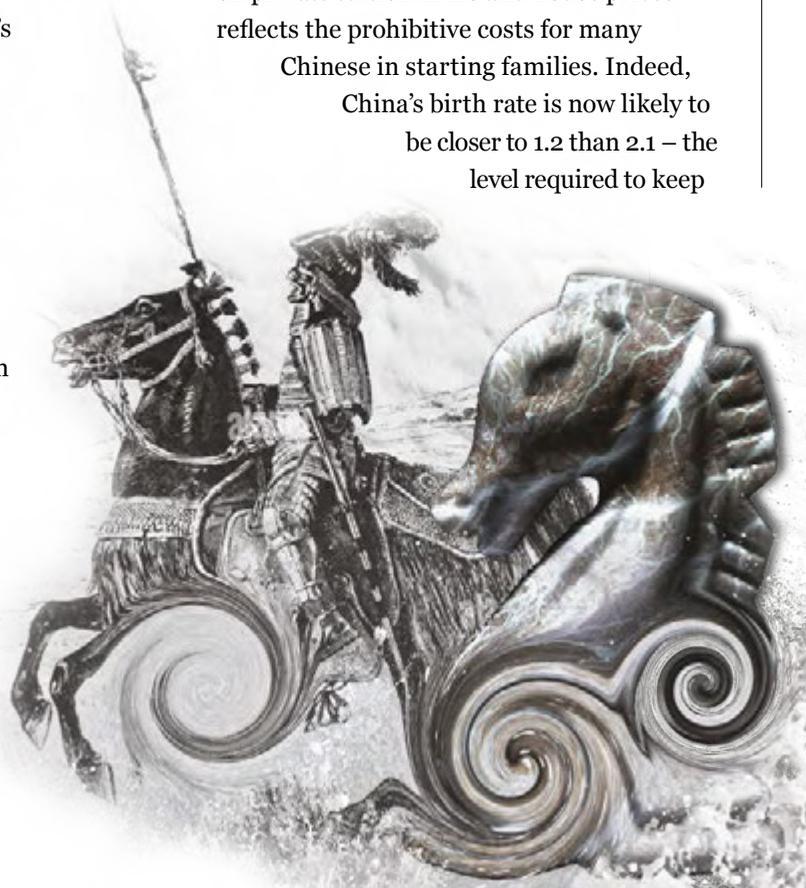
Far from Westernising, the CCP is running hard in the opposite direction, confident of victory in what Rush Doshi describes as its 'long game' for global dominance.⁵ This clash of systems will only become crisper with each frost, keeping political risk for those investing in Chinese assets elevated indefinitely.

DEMOGRAPHICS AS DESTINY

Yet Beijing's agenda also reveals a fear of domestic and foreign challenges which threaten upheaval within China and across the world.

First up, demography. The CCP's assault on private tuition firms and house prices reflects the prohibitive costs for many

Chinese in starting families. Indeed, China's birth rate is now likely to be closer to 1.2 than 2.1 – the level required to keep



a population steady.⁶ On current trends, by mid-decade more nappies will be sold for the aged than for infants as China's old age dependency ratio – the number of over 65s versus those aged 15 to 64 – deteriorates sharply, driving up labour costs.

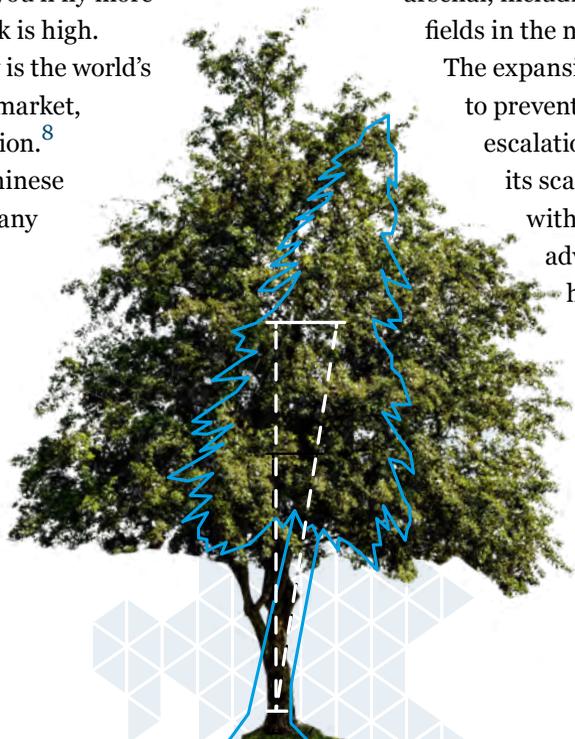
The urgency is palpable: CCP members are being encouraged to have more children, and access to abortions has been restricted.

The cost-of-living focus also aims to address the *tang ping* or 'lying flat' movement. This encourages young workers to opt out of the highly competitive '9-9-6' work culture (9am to 9pm, 6 days a week) in favour of minimalist living.

IN-FLIGHT REBUILDING

Tang ping is particularly unhelpful for Beijing as it attempts a historic pivot away from over-reliance on credit-fuelled property growth (currently running at a dangerously elevated c 29% of GDP)⁷ to a consumption-driven economy. This, too, smacks of panic. It is akin to rebuilding an airliner engine mid-flight. At best, you'll fly more slowly, but crash risk is high.

Chinese property is the world's largest single asset market, worth over \$60 trillion.⁸ Investors used to Chinese demand picking up any slack in the global economy should brace for in-flight volatility.



Massive misallocation of capital made a shift in growth model inevitable: there may be enough surplus empty property to house 90 million people in China.⁹ But growing international pressure has made the task more urgent.

NUCLEAR CHESS

That pressure comes from Washington. The chaotic US retreat from Kabul might have cemented Beijing's impression of decadent decline, but it also signals a new phase of America's efforts to contain China. Beijing's belief that America is only interested in keeping China down has been reinforced by the unveiling of AUKUS (an Australia-UK-US defence technology partnership), by NATO's pivot to China and by Japan's decision to link its own security to Taiwan's while boosting defence spending to 1950s levels.

With the prospects of physical confrontation rising, China has embarked on a dramatic expansion of its nuclear arsenal, including massive new missile fields in the northern deserts.¹⁰

The expansion probably aims to prevent American nuclear escalation in any conflict, but its scale and speed – coupled with Chinese and Russian advances in cutting edge hypersonic weapons, artificial intelligence-driven autonomous

6 Reuters (Dec 2021) China Statistical Yearbook 2021

7 Rogoff & Yang (Aug 2020)

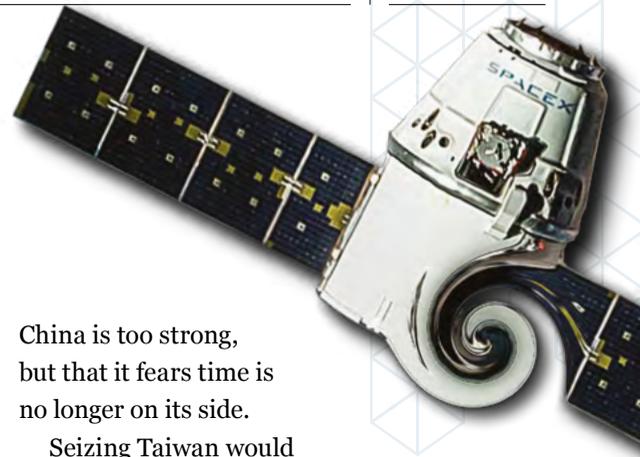
8 Ibid

9 Financial Times (Sep 2021)

10 US Department of Defense (Nov 2021)

systems and the militarisation of space – signal a more dangerous, avalanche-prone phase of Cold War II.

Taiwan remains the issue most likely to turn the Cold War hot. Notably, the History Resolution does not grant Xi rule for life: internal opposition remains and could yet be emboldened by policy mistakes. ‘Reunification’ with Taiwan is his ticket to eternity, so if he only has one further term, that could compress his timetable. As might the risk that China, like Wilhemine Germany before WWI or Imperial Japan pre-WWII, sees a narrowing window to achieve its objectives before concerted opposition can thwart it. The real danger may not be that



China is too strong, but that it fears time is no longer on its side.

Seizing Taiwan would be China’s most ambitious foreign policy gamble since Kublai Khan tried to invade Japan for the second time in 1281. That effort was foiled by *kamikaze* – divine wind. The Taiwanese will be hoping that, this time, the Americans provide the puff.

Full-scale invasion remains unlikely for now. Instead, relentless Chinese diplomatic, military, cyber and economic pressure will aim to wear down Taiwan’s will and capacity to fight. But crises in other parts



of the world, most likely between Russia and Ukraine or Iran and Israel, may prove irresistible opportunities to probe the resolve of an increasingly weary US elsewhere. This would increase the greatest near-term risk: accident or miscalculation.

RECENTRALISED FINANCE

Among the reasons not to go for Taiwan right away is America's second nuclear option: control of the US dollar system upon which global trade and payments depend.

But China has a plan to simultaneously reduce vulnerability to this Achilles heel and to draw in capital flows. That solution includes 'Digital Currency Electronic Payment', better known as the digital yuan (eCNY). It forms the foundation of a potential global monetary order to run parallel to the US dollar.

Unlike cryptocurrencies such as bitcoin, which rely on decentralised ledgers with no overall control, eCNY is legal tender administered by China's central bank, the People's Bank of China (PBoC). It is due to be more widely deployed very soon, yet eCNY's potential market ramifications remain significantly underappreciated. What happens, for example, when any foreign trade or investment with China must settle in eCNY? You will have to enter Beijing's technological ecosystem and accept their digital currency standards, giving China huge regulatory and standard-setting power in the digital world, plus real-time oversight of sensitive financial information. Yet how many firms will turn down access to one of the world's largest consumer markets?

Moreover, once foreign capital crosses the eCNY threshold, it will be invisible to US authorities, helping insulate Chinese entities from American sanctions. In short, eCNY

will allow Beijing to weaponise its economic gravity more effectively and accelerate its plan to escape the dollar. This is likely to mean even greater Chinese assertiveness internationally.

THE EMPTY THRONE

Digital money would also enable the fuller imposition of negative interest rates, with no cash safety valve for savers. For the time being, however, China's central bank wishes to do the opposite: provide the global savings market of choice – another part of the plan to lure in capital. This throne has been empty since Mario Draghi's 'whatever it takes' moment killed off the euro's Bundesbank tradition of sound money. The PBoC will try to attract inflows by offering materially higher real (ie after inflation) rates of interest to foreign capital fleeing financial repression in the West.

Beijing appears to be betting that, although it cannot compete with the US on rule of law, it can offer monetary good order. Conceivably, gold may in time back international use of the yuan, even if it is not convertible domestically.

To date, Beijing's bet looks good. China is awash with American venture capital funding and, despite the growing political risks, portfolio flows into Chinese assets are accelerating, egged on by Wall Street royalty from BlackRock to Bridgewater – Beijing's unofficial ambassadors. In 2020, foreign direct investment into China hit an all-time high,¹¹ evidence that companies are still investing more – not less – in production there.

POLITICAL WARFARE

But China is engaged in 'political warfare', defined by legendary diplomat George

Kennan as “the employment of all the means at a nation’s command, short of war, to achieve its national objectives.” The aim: succession to global pre-eminence. There is, therefore, no distinction between public and private, civilian or military activity.

So far, markets have been able to ignore the new Sino-Western confrontation as of only limited financial significance. That is changing as the chasm between political reality and investor behaviour yawns wider. Why fund start-ups, new technologies and government objectives – including nuclear-armed fractional orbital bombardment systems – for your principal adversary, rather than your own country?

A more intensive conflict now beckons over where capital flows and what it is used for.

CAPITAL WARS

The US-China Economic and Security Review Commission’s 2021 report to Congress¹² offers a plausible vision of the near future. Suggesting that “a basic responsibility of American citizenship ought to be not to do anything to endanger US troops”, the commission recommends that Washington consider creating an “economic defense coalition with allies and partners” to resist Chinese economic coercion. Provisions would include the “imposition of retaliatory measures against China in support of the coerced party.” That sounds a lot like an economic NATO.

Interim measures would see more effective co-ordination between the various US restriction lists, and renewed pressure on index providers who play a “pivotal yet unregulated role in guiding foreign portfolio investment toward Chinese companies”. Sovereign capital flows

are already adjusting to the new reality, with Japan’s public pension fund, the world’s largest, opting to exclude Chinese government bonds. Facing pressure from both sides, Chinese ADRs (stocks listed in America) are at particular risk – around 250 of them, worth over \$1 trillion.¹³ US politicians and regulators are demanding greater oversight of opaque accounting, and de-listings are likely.

That suits Beijing just fine, since it will force investors seeking Chinese exposure into Chinese markets. Ride-hailing firm Didi’s fateful experience of a US listing followed swiftly by pressure from Beijing to de-list, showed that Chinese authorities are not comfortable with the unpatriotic use of US markets or the leakage of capital and, potentially, sensitive data. Chinese ADRs without dual listings could turn into high-risk lobster pots for investors: easy to get into, hard to get out of.

Meanwhile, navigating political risk is an increasingly thin



11 Peterson Institute for International Economics (Jul 2021)

12 USCC Annual Report to Congress 2021

13 Stock Market MBA (15 Dec 2021)

line for foreign firms operating in China, as the treatment of tennis star Peng Shuai, the hostage diplomacy of the two Canadian Michaels and Disney's removal of 'offensive' Simpsons material from its Hong Kong service attest. Hard choices are coming for businesses, not just investors.

Further bifurcation of capital markets is therefore inevitable. To channel Trotsky: you may not be interested in capital war, but capital war will be increasingly interested in you. The transition to a multi-polar world order, dominated by the new Cold War, is about to get choppy.

HOT AND BOTHERED

While the political climate heads for a deep freeze, the planet is heating up. Unfortunately, history indicates that climatic disruption typically catalyses or

supercharges upheaval rather than mollifying it.

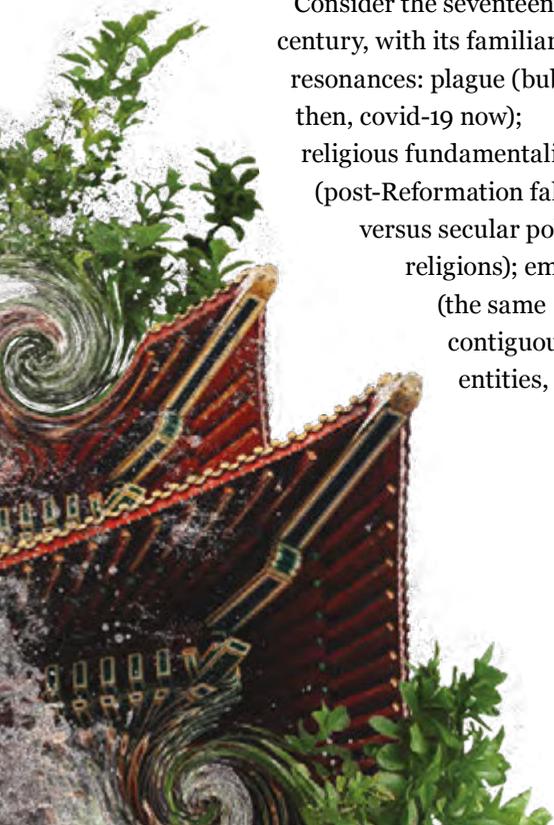
Consider the seventeenth century, with its familiar resonances: plague (bubonic then, covid-19 now); religious fundamentalism (post-Reformation fallout versus secular political religions); empires (the same contiguous entities,

plus the US now); authorities struggling to manage the fallout of a tech-driven data explosion (printing press and pamphlets versus the internet and social media); rapid shifts in military technology; increasingly centralised fiscally active governments.

And climate change. Extreme weather caused by the Little Ice Age – an extended period of global cooling – devastated crops and made populations more susceptible to disease. This exacerbated political, economic and cultural sources of disorder. The result? In the words of historian Geoffrey Parker, a 'global crisis' of innumerable civil and international wars stretching from the cataclysmic Thirty Years War in Europe (1618-1648) through the collapse of China's Ming dynasty (1644) and into the 1680s.¹⁴

In the pre-industrial world, weather mattered more. Most regions depended on a single crop. If the harvest failed, there was little fat on the bone to protect against the volatility ahead. Real economy margins were thin by default, not choice. By contrast, we enjoy great plenty, delivered by an industrial economy optimised for historically favourable conditions. Once again, real world margins are thin – there's little reaction wood – but this time by complacent design.

Those margins will have to be fattened, because the physical effects of greater climate volatility and resource depletion are already being felt. Take water: droughts are curtailing mining operations and driving crop failure leading to commodity volatility – and so are floods. China, home to a fifth of humanity but around 6% of the earth's fresh water, is especially vulnerable. Its damming of the Tibetan headwaters of South and East Asia's great river systems, on which its neighbours depend, is just one catalyst for looming environmental conflict.



“The resulting ‘Net Zero’ agenda will itself increase upheaval for years to come, compounding the effects of geopolitical and natural risk.”

So climate, too, is raising the political temperature everywhere, demanding greater physical resilience. Fatter real-world margins mean thinner financial ones.

Until physical resilience is improved, geopolitical and environmental risks will drive higher economic and inflation volatility as supply chains come under pressure.

(IM)BALANCE OF POWER

Rising physical pressure from climate change is one growing source of volatility; mankind’s response to it another entirely. All economic activity is transformed energy, and the policy consensus now holds that burning fossil fuels to source that energy is responsible for increased natural risk.

Yet the resulting ‘Net Zero’ agenda will itself increase upheaval for years to come, compounding the effects of geopolitical and natural risk.

As carbon budgets (estimates of ‘safe’ levels of emissions) get tighter and carbon prices higher, the chances that energy companies are sitting atop reserves which cannot be extracted or infrastructure that becomes redundant increase sharply. To boot, the pythonic forces of environmental, social and governance (ESG) investment mandates are constricting capital flows

to the same businesses. Both strongly discourage investment in fossil fuel supplies – at least among listed Western firms. Unsurprisingly, investment in both old and new hydrocarbon supply has slumped.

But there’s a problem: the world is still overwhelmingly dependent on fossil fuels – about 80% dependent, in fact.¹⁵ Energy consumption is heavily linked to GDP and population: both are growing. Investment in increasingly price-competitive renewables is charging ahead, but is unlikely to be enough to prevent significant mismatches between demand for and supply of energy, leading to price spikes. In 2021, we saw evidence of this building succession crisis between old and new energy systems, with surging fuel costs from Europe to Asia.

POWER POLITICS

Last year also offered a glimpse of how the energy transition will increase political pressure. The Biden White House pushed a green climate agenda while begging the Organization of the Petroleum Exporting Countries (OPEC) to ramp up oil production. Its Augustinian ‘Lord, make us carbon chaste, but not yet’ recognises the politically lethal effects of high energy prices – with a disproportionate impact on the middle and working classes.

In some ways, the covid-19 era has been notable for a lack of political upheaval, with Trump the primary victim. (My guess: fiscal largesse and technological soma are responsible for this calm.) But rolling energy crises will probably wreak political havoc for many incumbents in the energy succession era. ‘The lifestyle you ordered is out of stock’ isn’t a great campaign slogan.

For states dependent on hydrocarbon exports, the energy transition is more existential over the long term, threatening

to create a rash of failed states in already unstable regions.

For now, however, with Western energy giants running down their fossil fuel operations, petrostates stand to profit from both higher prices and greater market share.

Even as their longer-term prospects fade, the transition is thus likely to reinforce petrostates' influence in the short to medium term, strengthening the hands of Russia, Saudi Arabia and Iran in seeking to reshape regional orders.

Simultaneously, control of the supply of the metals required to underpin the energy transition will become far more important. But, while demand for them is set to soar, the supply of copper, cobalt, lithium, rare earths and so on will face mounting ESG headwinds, given mining's physical footprint. Moreover, deposits of these critical minerals are far more geographically concentrated than for oil, adding a new roster of states to the roll call of potential global disruptors. And all this on top of the schism which will result from the regulatory walls built around the West via carbon border adjustment mechanisms (see [The Great Acceleration](https://www.ruffer.co.uk/great-acceleration) [ruffer.co.uk/great-acceleration](https://www.ruffer.co.uk/great-acceleration)).

PROFIT AND PERIL

Financial markets represent investors' competitive visions of an inherently uncertain future. Biosphere 2 may be in Oracle, but you don't need to be a Delphic Sibyl to discern some features of the road ahead. In geopolitics, the environment and energy markets, long-term volatility is picking up, and it's eminently investable.

Growing disorder from Russia's Ukraine border to the Taiwan Straits will reward investments in security: space and cyber;

AI; autonomous systems; defences against drones; nuclear modernisation. Beyond the immediate threat posed by further covid-19 disruption, tail risks around China are multiplying, from economic re-engineering and eCNY to Taiwan. All these are now 'live' issues, with the yuan set to be a key barometer of China's economic health.

Political risk in China is here to stay, but priority sectors for the CCP will have greater protection. Chinese savings are likely to find their way into domestic stocks and perhaps gold, too, as real estate is deprioritised. Beijing's focus on rebuilding non-financial forms of capital foreshadows eventual action in the West as antitrust measures and higher taxes move closer.

But foreign portfolio flows into Chinese assets are likely to continue, accelerating capital conflict as Western money boosts Beijing's ambitions. Similarly, record foreign direct investment into China reflects its unrivalled manufacturing base and the remarkably robust performance of global supply chains in the covid era. But the accelerating Cold War raises the risk of greater schism in world order, and securing non-Chinese supply chains in critical industries will become more urgent. Japan looks well-placed to profit, with its deep capital stock, little financial engineering and strong cultural and intellectual capital.

Mass ageing in China and elsewhere suggests that population bust, not boom, will define the century. Health and social care, pharmaceuticals, leisure spending and automation are growth



industries. Age-related pressure on public finances will encourage the growth of the state, and money-financing. China's attempts to pivot to a consumption-based growth model will export volatility – and probably inflation – but it could ultimately create a new growth engine, as could the greening of the global economy.

Climate change and the energy transition will drive bigger shocks in commodity markets, accelerating transition plans. That's good news for strategic metals, their miners and energy storage, while the need for secure, reliable baseload power is likely to see nuclear given another chance: bullish for uranium. But the politicisation of capital will also offer profitable opportunities to invest in the uninvestable. Vice, in the shape of integrated energy companies with high cash flows and growing renewables divisions, could pay handsomely.

Sitting at the crossroads of geopolitical, environmental, demographic and energy transitions is additive manufacturing (3D printing). Since humans began using tools, our manufacturing has involved taking natural resources and subtracting material to create what we want. Now, we can build from the ground up, with minimal waste. Better yet, we can build complex products

locally and remove costly human labour. Cleaner, cheaper, more secure.

Above all, active management and thoughtful tail-hedging will be essential to maintain resilience in this era of greater volatility.

NEMESIS

In classical mythology, Nemesis was the goddess who meted out retribution to those who had demonstrated hubris before the gods. Recent decades of peace and stability fostered hubris. Now, Nemesis is starting to make her house calls.

For the complacent West, Nemesis now appears as domestic fragmentation and Xi's China – both repudiating Western 'End of History' delusions.

For the complacent East, Nemesis is arriving demographically via the one child policy and politically via one man rule. Both are incubating succession crises and Beijing could go for broke as time starts to run against it.

For markets, the lack of real-world turbulence in recent decades has seen financial capital grow unnaturally fast. But this has been at the expense of resilience, from the natural world to national security; from the social contract to China-centric supply chains. Now, the winds are picking up.

The road ahead will be defined not only by greater volatility, but also by the need to restore resilience by rebuilding non-financial forms of capital. Institutions, ideas and portfolios conditioned by a generation of windless calm are on borrowed time. But those rich in reaction wood and the capacity for renewal will find the winds at their back. ●

