### **RATHBONES**

# PEACE OF MIND IN A DANGEROUS WORLD

You can't predict the future when investing, but you can prepare for it by thinking about geopolitical risks

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Written by Oliver Jones Head of asset allocation Last year we published our inaugural 'Peace of Mind in a Dangerous World' report setting out how we think about and prepare for geopolitical risks. Events since then – especially the ongoing war in Gaza and intensifying hostilities between Israel and other powers in the region – have underlined the importance of these risks to investors and the necessity of preparedness. This year's updated edition is therefore as relevant as ever.

In introducing the latest version of this report we want to both acknowledge that uncertainty is a real and genuine concern for our clients – especially when it comes to things like big geopolitical risks that are far removed and outside of our control – and offer what we hope will provide some genuine peace of mind when it comes to your investments.

Sadly, as recent events have shown us, the destruction of human life from geopolitical events can sometimes render the impact on financial markets trivial in comparison. But we still have a responsibility to consider the investment implications, prepare for and monitor them.

We know that these risks, and the great uncertainty that can stem from them, are one of the biggest financial concerns that keep our clients awake at night. And this report is an opportunity to shed what we hope will be some reassuring light on our approach to protecting your investments from these risks.

Ed Smith

Co-chief investment officer



The 2022 escalation of the Ukraine war to a full-scale invasion is the best recent illustration of how much difference hard-toforesee geopolitical risks sometimes make to the global economy and to investors. The war was an important reason why even the most sophisticated forecasters grossly underestimated how much inflation would rise, how much equity markets would struggle and how bonds would suffer their worst year in decades.

Geopolitical ructions will undoubtedly shake markets again. It's important to be realistic about our ability to foresee such events – acknowledging the existence of what one-time US Secretary of Defence Donald Rumsfeld once called the 'unknown unknowns'. But that's no reason to bury our heads in the sand – there's still much we can do to prepare.

It's worth monitoring the biggest geopolitical risks on the horizon and then putting plans in place, should any of these risks turn into reality. We hope that having a framework for how we will identify, monitor and respond to these risks can give our clients some peace of mind about their investments. This updated report sets out our systematic approach to doing just that, illustrated through what we think are four of the most significant threats.

### Charting choppy waters: navigating geopolitical risks

We need to answer three questions:

- Which risks should we consider?
- How can we monitor whether these risks are about to occur?
- How should we respond if they do happen?

Our framework is therefore split into three parts: identifying, monitoring and planning responses to major geopolitical risks.

IT'S WORTH MONITORING THE BIGGEST GEOPOLITICAL RISKS ON THE HORIZON AND THEN PUTTING PLANS IN PLACE, SHOULD ANY OF THESE RISKS TURN INTO REALITY.

# IDENTIFYING THE MOST RELEVANT RISKS

It's not possible to monitor every conceivable geopolitical risk, so as investors we need a way of pinpointing the most important ones. As a starting point, we use the Preventive Priorities Survey which is published annually by the Council on Foreign Relations, a US international relations think tank. The survey asks hundreds of US foreign policy experts, academics, and government officials to rank geopolitical threats by both likelihood and potential impact.

We consider only the 'Tier 1' events identified in the survey – those with the highest combined scores based on considering these two criteria. We then apply our own judgement to filter that list.

The advantage of this approach is that it is repeatable annually and has previously been impressively prescient: for example, it flagged the full-scale invasion of Ukraine as a 'Tier 1' risk before it happened. We can also add any geopolitical risks not covered by the survey in the future if necessary.

Through this we have identified four key risks:

- China-Taiwan crisis
- Escalation of Ukraine conflict
- A highly disruptive cyberattack
- Broader conflict in the Middle East

This is broadly the same list as we identified in 2023, but we have updated our precise definitions of the risks (which you can read more about immediately below) to reflect recent events, and our analysis of the 'red flags' which would suggest the risks have become much more likely (these are set out in the following section).

### CHINA-TAIWAN CRISIS

By this, we mean a lasting military blockade or outright invasion of Taiwan by China. The Chinese Communist Party has a long-term goal of reunification, and President Xi Jinping has refused to rule out the use of force to achieve it. Far from it, a recent report from Japan found China's ability to invade Taiwan has improved substantially, with China able to land troops in as little as one week.

China has been increasing the pressure on Taiwan through a mix of political interference, cyberattacks, breaches of its airspace, and live-fire military exercises around the island – particularly since 2022. The election of Lai Ching-te as Taiwan's President earlier this year did little to ease these tensions. Lai has kept Taiwan's basic policy toward China unchanged but has arguably taken a more confrontational tone than his predecessor. Beijing has termed him a 'separatist'. To protect Taiwan, the US supplies it with defensive weapons. Although former President (and candidate for re-election) Donald Trump has questioned US support for Taiwan, an \$8bn support package received bipartisan backing earlier this year. The US also maintains what experts call a 'strategic ambiguity' on whether it would intervene militarily if the island were attacked: it doesn't explicitly say it would fight China, but it doesn't say that it wouldn't either. By doing this, it hopes to prevent an invasion by presenting China with the risk that any battle over Taiwan could be long and costly.

# ESCALATION OF THE UKRAINE CONFLICT

This could involve the war spilling<br/>over well beyond Ukraine's borders,<br/>particularly through conflict with a NATO<br/>country. Escalation could also mean the<br/>use of nuclear weapons. The risk is that<br/>Russia, faced with defeat or humiliation,<br/>lashes out. Russia maintains a large<br/>stockpile of tactical nuclear weapons,<br/>which President Putin has threatened, not<br/>very obliquely, to deploy if the country's<br/>"territorial integrity" is threatened.and markets. We worry about this risk<br/>because cyberattacks have become<br/>far more regular and sophisticated<br/>recently – surging since the invasion<br/>of Ukraine and more than doubling in<br/>frequency since 2014 on some counter<br/>Moreover, several states are reported<br/>developing a new generation of advar<br/>cyber weaponry. Although it was not<br/>a cyberattack, the global disruption<br/>caused by the CloudStrike outage ear

We still judge that this is one of the most significant geopolitical risks, even if Donald Trump becomes the next President of the US with his apparent willingness to support a ceasefire – including considering Ukraine ceding territory. The outcome of the US election is still uncertain, and other Republicans are far more willing to support Ukraine. In any case, the stance of the US is just one relevant factor.

### A HIGHLY DISRUPTIVE CYBERATTACK

We're talking here about an attack with much more damaging and longer-lasting consequences than any we've seen so far. Even the most severe attacks to date, such as the Russia-linked 2017 NotPetya incident, have had only a minimal impact on the global economy and markets. We worry about this risk because cyberattacks have become far more regular and sophisticated recently – surging since the invasion of Ukraine and more than doubling in frequency since 2014 on some counts. Moreover, several states are reportedly developing a new generation of advanced a cyberattack, the global disruption caused by the CloudStrike outage earlier this year highlighted the vulnerability and interconnectedness of modern IT infrastructure.

### BROADER CONFLICT IN THE MIDDLE EAST

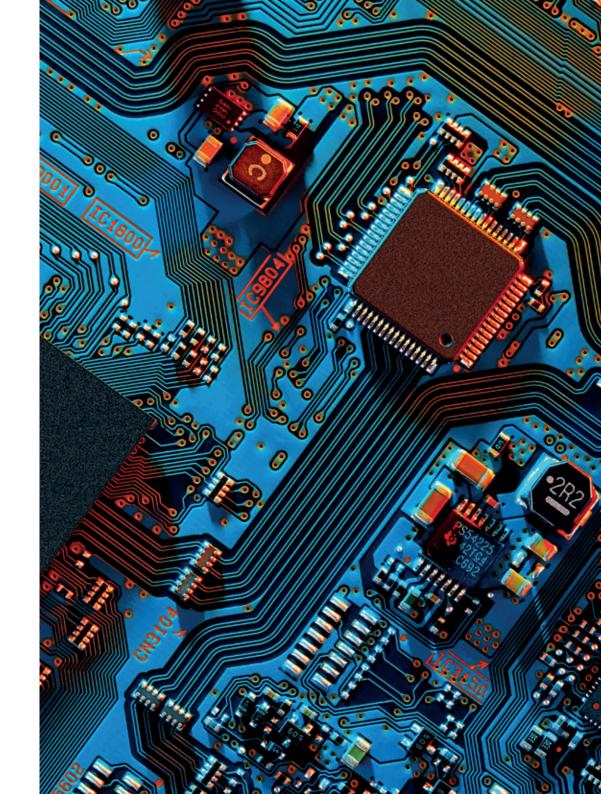
Here, we're considering the risk of the war in Gaza spilling out into a wider military conflict in the region – particularly an outright war between Israel and Iran which results in serious disruption to global energy supply.

Since the war in Gaza began in October 2023 wider hostilities in the region have intensified, with Israel on one side and Iran or armed groups it supports (such as Lebanon's Hezbollah and Yemen's Houthi rebels) on the other. Houthis have attacked oil tankers in the Red Sea. Israel has assassinated Hamas' political chief in Iran. Israel and Iran have launched strikes on one another just below levels of outright war. And recent escalation has seen Israel expand its conflict against Hezbollah, including a ground offensive in Lebanon.

To date the impact on the global economy and markets has been limited. However, a broader outright military conflict in the region could be much more damaging.

Previously we highlighted the risk associated with Iran's nuclear programme as a key potential trigger for escalation. That's still true, and the current conflict has arguably increased the chances of broader escalation in the region.

Iran has been adding to its uranium stockpiles since the nuclear deal it struck with the US and other major powers broke down in 2018. To be used for a nuclear bomb, uranium must be enriched to 90% purity; experts believe Iran is not far off this. Iran says this is for civil rather than military use, to develop nuclear energy. However, some Israeli officials think Iran wants a nuclear bomb, and they view a nuclear-armed Iran as an existential threat. Israel has previously threatened strikes on Iran if uranium is enriched to bomb-grade.



# **MONITORING MAJOR RISKS**

### We're not in the business of trying to forecast geopolitical risks far in advance. Why not? Academic research shows that even the judgements of geopolitical experts (which we're not) about how such events will play out over more than a few months have historically performed poorly. One remarkable study of more than 80,000 forecasts from hundreds of experts over two decades found that their projections were no more use than random guesswork.

Even so, we see value in identifying 'red flags' – markers that the risks we've identified may be imminent, or at least much more likely to be realised. There is some academic evidence that identifying red flags significantly improves prediction, making it worthwhile to forecast geopolitical risks over shorter time horizons. The full market impact of the kind of risks we've flagged typically unfolds over some time, rather than being felt immediately, so even warnings that appear only a little before the event should still be useful.

To help us identify and monitor relevant red flags for each of the events identified above, we've partnered with the geopolitical risk team at BCA Research. They've helped us fill out and update the table on page 11. It lists red flags for each of the geopolitical risks on our list. BCA is continuously monitoring those red flags for us, as well as suggesting changes to the list where necessary.

One of our red flag events relating to fullblown conflict between Israel and Iran has now happened (Israel and Iran have made specific threats to one another). Another has in part (the proxy conflict between Israel and Iran has intensified, but Israel has reportedly assured the US that it will not target Iran's nuclear or oil infrastructure). The chance of this risk being realised appears to have increased and is arguably the highest of the four threats we have identified. Yet it is not inevitable either, particularly as the key red flags relating to Iran's nuclear programme have not happened.

ONE REMARKABLE STUDY OF MORE THAN 80,000 FORECASTS FROM HUNDREDS OF EXPERTS OVER TWO DECADES FOUND THAT THEIR PROJECTIONS WERE NO MORE USE THAN RANDOM GUESSWORK.

#### THE RATHBONES RED FLAGS

China / Taiwan crisis	Ukraine conflict escalation	Highly disruptive cyberattack	Broader conflict in the Middle East
Surging Chinese imports of arms and stockpiling of critical goods.	High oil prices enabling greater Russian aggression.	Could be little or no warning. But may be more likely around elections (eg, the US election) or after major policy change (e.g. sanctions hitting a country with a history of aggressive use of cyber capabilities).	Evidence that Iran has enriched significant quantities of uranium beyond 90%, now that Iran has already crossed Israel's previously stated red line of 60%.
China repatriates' funds held overseas and/or imposes harsh new capital controls.	Significant increase in Western supply of advanced weapons or deployment of Western advisers or troops to Ukraine, or large troop deployments to Finland/Baltics/ Romania.	Intensification of smaller-scale/ unsuccessful cyberattacks targeting critical infrastructure or institutions, especially if a clear pattern of targeting is visible.	Evidence that Iran has tested a nuclear device, or the re-entry and targeting of a ballistic missile that could carry a nuclear weapon.
Specific warnings of imminent direct military preparation from intelligence services/militaries.	Russia faces defeat — Ukraine retakes territories annexed in 2014, especially Crimea.	Major deterioration in West's relations with Russia/China/Iran/ North Korea, such as further confiscations of Russian property, sanctions on Chinese banks or military, sanction enforcement on Iranian oil exports or North Korean food or fuel.	Intensification of shadow or proxy conflicts, especially involving Iranian nuclear sites and critical infrastructure in Iran, the Persian Gulf, or elsewhere in the Middle East.
Large build-up of Chinese forces opposite Taiwan, or significant deployment of US forces in Taiwan.	Ukraine causes mass casualties or debilitates critical infrastructure on Russian territory.	Global economic recession would drive state and non-state actors to escalate cyberattacks for economic/financial opportunities, which could lead to systemic disruptions or failures.	Specific threat of a direct military attack against Israel, Iran, Saudi Arabia, UAE, or the US.
Taiwan holds an independence vote, or presidency seizes extraordinary power from legislature.	Democrats primed to retain White House, while Putin faces significant political/ regime instability at home.	US or Israel could adopt cyber tactics if rivals violate red lines and they lack the political will to respond militarily (e.g. continued Russo- Chinese military cooperation in Ukraine or Iranian/North Korean nuclear and missile advances).	More domestic unrest in Iran, which includes worker protests across the country or leads to divisions within armed forces/the top ranks of government.
China occupies outlying islands in Taiwan Strait (Kinmen, Matsu, especially Penghu).	Specific threat and preparation for a nuclear attack.		Specific warnings of imminent direct military preparation in Israel or Iran from intelligence services.

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# PLANNING OUR RESPONSE

To plan how to adjust our portfolios should it become clear that one of the key risks that we've identified is imminent, we've taken the following steps:

- Charting the key channels through which each risk might affect the global economy
- Assessing the possible impact on global economic growth and inflation
- Identifying any effects specific to particular regions, sectors or commodities
- Translating the economic effects into implications for different asset classes
- Analysing the possible consequences for equities in different sectors.

You can find out more about the possible effects of each risk in the section starting on page 19. That said, some features apply to most, if not all, of our key risks.

# WHAT DO GEOPOLITICAL RISKS HAVE IN COMMON?

The biggest geopolitical risks are mostly wars and commodity supply shocks. These are typically inflationary since they tend to reduce the supply of goods and services more than the demand for them. Some may even create additional demand, through big increases in military spending.

Government bonds play an important role in our portfolios as protection against typical disinflationary economic downturns. However, since geopolitical shocks tend to be inflationary, government bonds are often not much use when these happen. In a classic downturn of falling inflation, long-dated government bonds (those that mature seven years or more in the future) typically deliver strong positive returns and outperform other fixed income assets. In contrast, an inflationary geopolitical shock, like the full-scale invasion of Ukraine. would tend to cause long-dated bonds to sell off, and shortdated inflation-protected bonds to deliver positive returns.

### WE FOUND THAT DEFENCE STOCKS TEND TO OUTPERFORM THE OVERALL STOCK MARKET WHEN GEOPOLITICAL RISK RISES.

#### Tracking investment returns

Gold has a track record of benefiting from geopolitical risk. Several academic papers use an index of geopolitical risk created by the Federal Reserve to show this. Ingeniously, the index is based on the proportion of newspaper articles analysed that mention relevant words and phrases. We've replicated and extended the analysis of one of those papers.

We found that defence stocks tend to outperform the overall stock market when geopolitical risk rises. One might expect the same for the prices of energy and agricultural commodities – geopolitics can affect their prices by disrupting production and distribution. But there's no consistent relationship: their prices do very well in some instances, but they're not a catch-all hedge against this type of risk.

The US dollar also tends to perform well at times of heightened geopolitical risk. Admittedly, some emerging market central banks in countries outside the US's geopolitical orbit have sought to diversify their reserves away from the dollar over recent years, particularly since the invasion of Ukraine, which resulted in Russia's dollar-denominated assets being frozen, and the country locked out of the global dollar system. However, this didn't stop the dollar appreciating — it's still stronger than before the invasion. The dollar remains the world's primary reserve currency. In any case, there's no correlation between changes in its share of central bank reserves across the world and dollar strength.

### **DIVERSIFYING STRATEGIES**

Lastly, so-called trend-following strategies, which seek to identify and capitalise on pricing trends in various asset classes, may help to offset the effects of large geopolitical shocks. Such strategies typically struggle at turning points – when prices stop rising and start falling because of a big event, for example.

But trend followers can in principle deliver positive returns when both equities and government bonds sell off. This is because of their flexibility to invest in other asset classes and to take what are known as short positions, which can provide a return from falling asset prices.

Their ability to deliver positive returns when both equities and bonds are sliding was illustrated in the aftermath of the invasion of Ukraine. Unlike most of the asset classes we invest in, trend-followers' returns have historically tended to do well when economic growth and inflation are volatile – and volatility usually increases following major geopolitical shocks.

TREND FOLLOWERS CAN IN PRINCIPLE DELIVER POSITIVE RETURNS WHEN BOTH EQUITIES AND GOVERNMENT BONDS SELL OFF. THIS IS BECAUSE OF THEIR FLEXIBILITY TO INVEST IN OTHER ASSET CLASSES AND TO TAKE WHAT ARE KNOWN AS SHORT POSITIONS.





# FINANCIAL AND ECONOMIC IMPACT

#### **CHINA-TAIWAN CRISIS**

A lasting blockade or outright invasion of Taiwan could have two significant direct effects on the global economy. First, the global supply of semiconductors, vital to virtually all electronic devices, could be severely disrupted. Taiwan is the world's largest producer of chips, supplying more than 90% of the most advanced models. Chip foundries take years to build, require precisely controlled environmental conditions and depend on a highly skilled workforce.

That makes the potential for disruption in a war high. TSMC, Taiwan's dominant chip supplier, has announced some highprofile new facilities in the US, Japan and Germany, but TSMC Chairman C.C. Wei has previously said it would be impossible to completely move production out of the country and 80–90% of its production capacity remains in Taiwan. Second, global shipping could be threatened. More than 40% of the world's container fleet passed through the Taiwan Strait in 2022. For the largest vessels, this was as high as 80%.

### DESPITE EFFORTS FROM THE US TO DISASSOCIATE WITH CHINA, IT REMAINS THE WORLD'S LARGEST EXPORTER AND A VITAL PART OF SUPPLY CHAINS

The indirect effects of an invasion could also be very significant if it resulted in disorderly decoupling, where major advanced economies rapidly reduce economic and financial ties. An abrupt decoupling with Russia occurred after the invasion of Ukraine, but China is a much more important part of the global economy. Despite efforts from the US to disassociate with China, it remains the world's largest exporter and a vital part of supply chains for IT/electrical equipment, many metals, chemicals and clothes.

The overall result would probably be weaker global growth and higher inflation. The stocks most affected would be those in cyclical sectors, with significant supply chain or revenue exposure to China, and with a dependence on advanced semiconductors. Defence stocks might outperform. Within fixed income, shortdated inflation-linked bonds might do best. Finally, Chinese assets might be subject to sanctions and/or capital controls.

# ESCALATION OF THE UKRAINE CONFLICT

Russia and Ukraine together account for only about 2% of global GDP, and Russia is already increasingly disconnected from global trade. However, further escalation could still cause considerable damage to the global economy through its impact on commodity supply.

Ukraine is a major exporter of agricultural commodities. Before Russia's invasion, it accounted for 12% of global corn exports, 9% of wheat and 17% of barley – and nearly half of sunflower oil. Ukraine has still exported these commodities despite the war, though in lesser volume. However, any further escalation could halt Ukraine's agricultural exports altogether.

Russian natural gas exports to the EU dropped dramatically in 2022 and remain near post-Soviet lows, so that shock has already happened. But Russia continues to export lots of oil, so disruption there is still possible. The EU continues to import some Russian oil by pipeline, for example. And 20% of tankers carrying Russia's global seaborne oil exports are still EU-insured while 30% are EU-owned. If relations with the EU worsen, this could be cut off.

What effect would a ratcheting up of the Ukraine conflict have on economies and asset prices? The result would be a commodity shock, which would weaken growth and aggravate inflation. Investors in these commodities would benefit if the prices of energy and agricultural commodities surged. As to stock markets, energy firms, some food producers and defence companies could do well. However, cyclical and growth stocks would probably underperform. Within fixed income, short-dated inflationprotected bonds would probably fare best.

### HIGHLY DISRUPTIVE CYBERATTACK

There's much more uncertainty about the impact of this risk than of the other three we've identified – we have few meaningful historical parallels to work with. Insurers' estimates of the likely damage caused vary wildly depending on the assumptions used. The impact could be very different depending on which sectors are affected: the range of those targeted recently has been very broad. For example, outside the public sector, the health care sector is the most targeted of all, with the finance sector also high up the list. This risk could also coincide with any of the other three if it were statesponsored.

Given the enormous uncertainty around the effects of a major cyberattack, in our analysis we've primarily treated it as a generic 'risk-off' event, acknowledging that in practice the implications could vary considerably depending on the precise nature of the attack (see the appendix for more detail). The stocks of those cybersecurity providers not compromised by an attack could benefit.

# BROADER CONFLICT IN THE MIDDLE EAST

The primary global economic threat of broader regional conflict in the Middle East is through disruption to global energy markets – either accidental or deliberate – as the region is home to several chokepoints for global energy shipping. Iran is adjacent to the Straits of Hormuz, through which a third of global seaborne oil trade and quarter of global seaborne natural gas trade pass every year. And just under a tenth of the global oil and natural gas supply flow through the Suez Canal and Bab-el-Mandeb strait.

Iran itself also accounts for around 4% of global oil production and 6% of natural gas. There are clear parallels to the two oil shocks of the 1970s. The first, in 1973, was caused by Opec's response to Western support for Israel. The second, in 1979, was sparked by falls in output linked to the Iranian Revolution. Both Iran and Opec account for a smaller share of global oil production than they did in the 1970s, but they're still significant.

In equity markets, cyclical and growth

stocks would probably suffer most, while energy and defence stocks would do best. Within fixed income, short-dated inflation-protected bonds might again be the best performers.



# FOREWARNED IS FOREARMED

We know we live in a world full of geopolitical risk. Moreover, the world has probably become more dangerous over the past few years, with escalating tensions between the US and China, uncertainty surrounding the impact of the upcoming US election, and ongoing conflict in the Middle East and Ukraine.

The future is unpredictable, but there are things we can do to prepare for the unknown. We hope that having a plan for how we will identify, monitor and respond to these risks can give our clients some peace of mind about their investments.

If you have any follow-up questions, please get in touch with your investment manager, call us on 020 7399 0000 or email enquiries@rathbones.com

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### APPENDIX: IMPACT ON DIFFERENT EQUITY SECTORS

For clients interested in more detail, in this appendix we've used a combination of quantitative and qualitative criteria to identify sectors to downgrade/upgrade should each risk be realised. One arrow represents a small downgrade/upgrade, two arrows represent a large one. A blank space represents no change. In each case, our starting point was ranking sectors quantitatively by their sensitivity to a couple of relevant factors, applying downgrades to those with the highest combined rankings. We then applied additional downgrades based on the crosschecks described in the tables, before finally making qualitative adjustments. These assessments are our opinion – the actual effects of these geopolitical events may be different – so you shouldn't rely on this for any personal investment decisions.



	Chin	a / Taiwan crisis	Ukra	aine conflict escalation
	rever checl supp	bined rankings for cyclicality and nue exposure to China. Cross- ked with information about ly chain dependency from OECD elling and qualitative judgement	and g perfo regre	bined rankings for cyclicality growth. Cross-checked with prmance after initial invasion, assion on supply-driven oil price as and qualitative judgement
Technology	$\downarrow\downarrow\downarrow$	China revenue/supply chain dependency	$\downarrow\downarrow\downarrow$	Growth exposure
Telecommunications				
Health care				
Banks	$\downarrow$	Cyclicality	$\downarrow$	Hit hard after invasion
Financial services			$\downarrow$	Sensitive to supply-driven oil price moves
Insurance	$\downarrow$	Middling cyclicality and China revenue exposure		
<b>Real estate</b>			$\downarrow$	Cyclicality
Automobiles and parts	$\downarrow \downarrow \downarrow$	Cyclicality, China revenue/ supply chain dependency	$\downarrow \downarrow \downarrow$	Cyclicality/growth exposure
Consumer products and services	$\downarrow$	China revenue exposure	$\downarrow$	Growth exposure
Media			$\downarrow \downarrow \downarrow$	Cyclicality/growth exposure
Retail			$\downarrow$	Sensitive to supply-driven oil price moves
Travel and leisure	$\downarrow$	Some cyclicality and China revenue exposure	$\downarrow$	Sensitive to supply-driven oil price moves
Food, beverages and tobacco			$\uparrow$	Some producers benefit from higher food prices
Personal care, drug and grocery stores				
Construction and materials	$\downarrow$	Cyclicality		
Industrial goods and services		Upgrade defence, downgrade rest		Upgrade defence, downgrade rest on cyclicality
<b>Basic resources</b>	$\downarrow \downarrow \downarrow$	Cyclicality, China revenue exposure	$\downarrow \downarrow \downarrow$	Cyclicality
Chemicals	$\downarrow \downarrow \downarrow$	China revenue/supply chain exposure	$\downarrow$	Some cyclicality/growth; but fertilisers could do well
Energy			$\uparrow\uparrow$	Beneficiary of higher energy prices
Utilities			$\uparrow$	Some benefit from higher energy prices

Security providers benefit       Security providers benefit         Felecommunications       Possible target — not especially         Wulnerable otherwise       Possible target — not especially         Wulnerable otherwise       Vulnerable otherwise         Banks       V       Cyclicality/beta, possible target         Financial services       V       Cyclicality/beta         Insurance       V       Cyclicality/beta         Automobiles and       V       Cyclicality/beta         Automobiles and       V       Cyclicality/beta         Consumer products       V       Cyclicality/beta         Consumer products       V       Cyclicality/beta         Media       V       Cyclicality/beta         Retail       V       Cyclicality/beta         Food, beverages and grocery stores       V       Sensitive to supply-driven oil price moves         Food, beverages and grocery stores       V       Sensitive to supply-driven oil price moves         Construction and materials       V       Cyclicality/beta       V       Sensitive to supply-driven oil price moves         Retail       V       Cyclicality/beta       V       Sensitive to supply-driven oil price moves         Food, beverages and grocery stores       V       Sensitive to supply-driven oil s		Highly disruptive cyber attack	Broader conflict in the Middle East			
Security providers benefit       Security providers benefit         Felecommunications       Possible target — not especially         Vulnerable otherwise       Vulnerable otherwise         Banks       V         Cyclicality/beta, possible target       Sensitive to supply-driven oil price moves         Financial services       V         Cyclicality/beta       Sensitive to supply-driven oil price moves         insurance       V         Cyclicality/beta       Cyclicality/growth exposure combination         Automobiles and point       V         Cyclicality/beta       Cyclicality/growth exposure combination         Consumer products       V         Sensitive to supply-driven oil price moves       Sensitive to supply-driven oil price moves         Travel and leisure       V       Cyclicality/beta       Cyclicality/growth exposure combination         Construction and materials       V       Cyclicality/beta       Sensitive to supply-driven oil price moves         Personal care, drug       V       Cyclicality/beta       Underperformed in past oil shocks         Industrial goods and price moves       V       Cyclicality/beta       Upgrade defence, downgrade rest on cyclicality         Basic resources       V       Cyclicality/beta       V       Cyclicality/growth exposure combination		and beta — used beta to reflect generalised uncertainty following major cyberattack. In practice effects will vary depending on specific nature	growth. Cross-checked with average performance in three previous oil shocks, regression on supply-driven oil			
vulnerable otherwise       vulnerable otherwise         Health care       Possible target — not especially vulnerable otherwise         Banks       U         Cyclicality/beta, possible target       Sensitive to supply-driven oil price moves         Insurance       Cyclicality/beta         Real estate       U         Cyclicality/beta       U         Automobiles and parts       U         Consumer products and services       V         Cyclicality/beta       U         Cyclicality/beta       U         Cyclicality/beta       U         Cyclicality/beta       U         Cyclicality/beta       U         Cyclicality/prowth exposure combination       Growth exposure         Consumer products and services       V       Cyclicality/growth exposure         Retail       V       Cyclicality/beta       Sensitive to supply-driven oil price moves         Travel and leisure       V       Sensitive to supply-driven oil price moves       Sensitive to supply-driven oil price moves         Construction and materials       V       Cyclicality/beta       V       Sensitive to supply-driven oil price moves         Basic resources       V       Cyclicality/beta       V       Underperformed in past oil shocks         Basic reso	Technology		t. 🕠 Growth exposure			
Banks       ↓↓       Cyclicality/beta, possible target         Financial services       ↓↓       Cyclicality/beta, possible target       ↓       Sensitive to supply-driven oil price moves         Insurance       ↓       Cyclicality/beta       ↓       Cyclicality/growth exposure         Real estate       ↓       Cyclicality/beta       ↓       Cyclicality/growth exposure         Automobiles and posts       ↓↓       Cyclicality/beta       ↓       Cyclicality/growth exposure         Consumer products       ↓       Cyclicality/beta       ↓       Cyclicality/growth exposure         Consumer products       ↓       Cyclicality/beta       ↓       Cyclicality/growth exposure         Media       ↓       Cyclicality/beta       ↓       Cyclicality/growth exposure         Consumer products       ↓       Cyclicality/growth exposure       Combination         Retail       ↓       Cyclicality/beta       ↓       Sensitive to supply-driven oil price moves         Fravel and leisure       ↓       Cyclicality/beta       ↓       Sensitive to supply-driven oil price moves         Food, beverages and cobacco       ↓       Cyclicality/beta       ↓       Sensitive to supply-driven oil price moves         Food, beverages and cobacco       ↓       Cyclicality/beta       ↓	Telecommunications		У			
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and services         Media <ul> <li>Cyclicality/beta</li> <li>Cyclicality/growth exposure combination</li> </ul> Retail <ul> <li>Sensitive to supply-driven oil price moves</li> </ul> Travel and leisure <ul> <li>Sensitive to supply-driven oil price moves</li> </ul> Food, beverages and cobacco <ul> <li>Sensitive to supply-driven oil price moves</li> <li>Sensitive to supply-driven oil price moves</li> </ul> Food, beverages and grocery stores <ul> <li>Sensitive to supply-driven oil price moves</li> <li>Sensitive to supply-driven oil price moves</li> </ul> Construction and materials <ul> <li>Cyclicality/beta</li> <li>Underperformed in past oil shocks</li> </ul> Industrial goods and services <ul> <li>Cyclicality/beta</li> <li>Cyclicality</li> <li>Cyclicality</li> <li>Cyclicality/beta</li> <li>Cyclicality/growth exposure</li> <li>Cyclicality/growth exposure</li> </ul> Basic resources <ul> <li>Cyclicality/beta</li> <li>Cyclicality/growth exposure</li> <li>Some cyclicality/growth exposure</li> </ul> Energy <ul> <li>Possible target – not especially</li> <li>Some benefit from higher</li> </ul> <th>Automobiles and parts</th> <th>Cyclicality/beta</th> <th></th>	Automobiles and parts	Cyclicality/beta				
Retail       Image: Combination         Retail       Image: Sensitive to supply-driven oil price moves         Fravel and leisure       Image: Sensitive to supply-driven oil price moves         Food, beverages and cobacco       Sensitive to supply-driven oil price moves         Personal care, drug and grocery stores       Image: Sensitive to supply-driven oil price moves         Construction and materials       Image: Sensitive to supply-driven oil price moves         Industrial goods and services       Image: Sensitive to supply-driven oil shocks         Basic resources       Image: Sensitive to supply-driven oil price moves         Cyclicality/beta       Image: Sensitive to supply-driven oil price moves         Basic resources       Image: Sensitive to supply-driven oil price moves         Cyclicality/beta       Image: Sensitive to supply-driven oil price         Basic resources       Image: Sensitive to supply-driven oil shocks         Basic resources       Image: Sensitive to supply complete to the sensecin to the sensitive to	Consumer products and services		↓ Growth exposure			
Image: Second secon	Media	↓ Cyclicality/beta				
Food, beverages and cobacco       price moves         Personal care, drug and grocery stores       Underperformed in past oil shocks         Construction and materials       Image: Cyclicality/beta is the shock is the sh	Retail					
Personal care, drug and grocery stores         Construction and materials <ul> <li>Cyclicality/beta</li> <li>Underperformed in past oil shocks</li> </ul> Industrial goods and services <ul> <li>Cyclicality/beta</li> <li>Upgrade defence, downgrade rest on cyclicality</li> </ul> Basic resources <ul> <li>Cyclicality/beta</li> <li>Cyclicality</li> <li>Cyclicality/beta</li> <li>Cyclicality</li> <li>Cyclicality/beta</li> <li>Cyclicality</li> <li>Cyclicality/beta</li> <li>Cyclicality</li> </ul> Chemicals <ul> <li>Cyclicality/beta</li> <li>Some cyclicality/growth exposure</li> </ul> Energy <ul> <li>Possible target – not especially</li> <li>Some beneficiary of higher energy prices</li> <li>Some benefit from higher</li> </ul>	Travel and leisure					
and grocery stores         Construction and materials <ul> <li>Cyclicality/beta</li> <li>Underperformed in past oil shocks</li> </ul> Industrial goods and services <ul> <li>Cyclicality/beta</li> <li>Upgrade defence, downgrade rest on cyclicality</li> </ul> Basic resources <ul> <li>Cyclicality/beta</li> <li>Cyclicality/beta</li> <li>Cyclicality</li> </ul> Chemicals <ul> <li>Cyclicality/beta</li> <li>Some cyclicality/growth exposure</li> </ul> Energy       Possible target – not especially vulnerable otherwise <ul> <li>Some beneficiary of higher energy prices</li> <li>Utilities</li> </ul>	Food, beverages and tobacco					
materials     shocks       industrial goods and services     Cyclicality/beta     Upgrade defence, downgrade rest on cyclicality       Basic resources     Cyclicality/beta     Cyclicality       Chemicals     Cyclicality/beta     Some cyclicality/growth exposure       Energy     Possible target — not especially vulnerable otherwise     Beneficiary of higher energy prices       Jtilities     Possible target — not especially     Some benefit from higher	Personal care, drug and grocery stores					
Services       rest on cyclicality         Basic resources       Image: cyclicality/beta       Image: cyclicality/beta         Chemicals       Image: cyclicality/beta       Image: cyclicality/growth exposure         Energy       Possible target — not especially multiple otherwise       Image: cyclicality beta         Jtilities       Possible target — not especially multiple otherwise       Image: cyclicality cy	Construction and materials	↓↓ Cyclicality/beta				
Chemicals       Cyclicality/beta       Some cyclicality/growth exposure         Energy       Possible target – not especially tulnerable otherwise       Beneficiary of higher energy prices         Jtilities       Possible target – not especially tulnerable       Some benefit from higher	Industrial goods and services	↓ Cyclicality/beta				
Energy     Possible target — not especially tulnerable otherwise     Beneficiary of higher energy prices       Jtilities     Possible target — not especially tulnerable     Some benefit from higher	<b>Basic resources</b>	Cyclicality/beta	Cyclicality			
vulnerable otherwise     prices       Jtilities     Possible target — not especially     Some benefit from higher	Chemicals	↓ Cyclicality/beta				
· · · · · · · · · · · · · · · · · · ·	Energy					
	Utilities					

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