DAVID MURRIN
GLOBAL FORECASTER

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Geopolitical Risk in Global Macro Investing

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Introduction

Global macro managers have to navigate a complex web of interconnected risks: market, credit, liquidity, financing, counterparty and operational, to name but a few. While all of these risks are different – and reasonable market practitioners can disagree about how best to deal with them – in at least one respect they are all similar: the nature of these risks has been well researched and documented, and as such they are relatively well understood. Dedicated risk management functions, with sophisticated infrastructures and high-calibre quantitative staff, have been built up over the years to measure, monitor and manage these risks.

In contrast, geopolitical risk, which can have a material and lasting impact on an investment portfolio, is neither well researched nor particularly well understood. While modern-day risk management systems and methodologies have evolved dramatically since the 1970s, there has been no visible progress in the way market practitioners analyse and manage geopolitical risks. There are no geopolitical analogues to commonly used market risk models, such as value-at-risk, or analytical frameworks linking geopolitical 'risk factors' to expected returns. Geopolitical experts and analysts working in boutique advisory firms still operate more as a cottage industry than as a well defined and structured discipline within the broader risk management function.

Interestingly, this lack of analytical sophistication with respect to geopolitics is not at all the result of under-appreciation by market practitioners: early macro traders were highly attuned to geopolitical risk and the opportunities it presented.[1] Rather, the reason at least in part has to do with the fact that the "golden age" of global macro – the twelve years from 1987 to 1999 – coincided with one of the rare 'unipolar' moments in world history: the Cold War was coming to an end; the United States reigned supreme and unchallenged as the only remaining superpower; the US political establishment famously proclaimed the 'End of History'; economic policymakers were congratulating themselves on taming the business cycle and achieving the state of 'Great Moderation'; and Western-dominated international financial institutions were laying down the law across the developing world in the form of the so-called Washington Consensus. Geopolitical risks all but faded into the background.

However, it all changed dramatically in the following decade. First, 9/11 shattered the myth of American invincibility. Multiple geopolitical challenges started emerging with the rise of Islamic fundamentalism, China's growing economic and financial clout, and Russia's sooner-than-expected resurgence on the back of rising commodity prices. Then, the crisis of 2007-09 shattered the myth of Western economic

[1] For example, Michael Markus, one of the first global macro traders and a legend in the industry, recounted in his interview with Jack Schwager how he had taken a massive long position in Hong Kong gold futures immediately following a breaking-news report on the Soviet invasion of Afghanistan in 1979. His ability to understand the significance and market implications of this geopolitical event, and to react swiftly and decisively, resulted in remarkable profits. Yra Harris, another global macro pioneer and a renowned CME futures floor trader, remarked in an interview with Steve Drobny: "Global macro is really a new term. It used to be called 'geopolitics.'" (Schwager (1989), Drobny (2006)).

and financial supremacy, leading to huge debt overhangs, high unemployment, anaemic growth and bleak prospects for most developed countries, leading to social tensions and political discord. Suddenly, it became painfully obvious that global economic and financial power was shifting decisively from the West to the East. As a result, concerns over geopolitical risks re-emerged with a vengeance.

This chapter proposes one possible approach to analysing geopolitical risk in the context of global macro investing – a model called "Five Stages of Empire." This is a proprietary concept developed by this author and explained in detail in his earlier book "Breaking the Code of History." It is not a model in the traditional *quantitative* sense: there are no well-defined data inputs processed by a computer and translated into actionable trading signals. Rather, it is best viewed as an internally consistent analytical construct based on three principles which have guided and shaped much of human activity throughout the millennia. Section I briefly reviews these three principles. Section II forms the core of the chapter, describing the "Five Stages of Empire" model. Section III considers how to apply this model in practice, with a particular focus on global macro investors.

The philosopher George Santayana famously wrote: "Those who cannot remember the past are condemned to repeat it." We must not only remember the past, but understand it. Only by deciphering the code of history are we able to understand the markets around us and the trading opportunities ahead of us.

The Three Principles

1. ***A market technician's approach to history and geopolitics***

As a former geophysicist based in the jungles of Papua New Guinea and a former market technician situated on the trading floor of one of the largest global investment banks, this author has had the privilege of working in vastly different environments, with multiple opportunities to observe the peculiarities of human nature and the dynamics of collective behaviour. One of the striking early discoveries during his career in the City of London was the realisation that the same patterns of collective-subconscious behaviour that he had observed amongst the primitive tribes were clearly discernible in financial markets. Primordial emotions of fear and greed, coupled with a strong tendency to herd, manifested themselves time and again in market price patterns and trends. But if a market technician can successfully identify and, to a certain extent, predict repeatable patterns of collective behaviour in one area of human activity, then surely it would be logical to extend the same technical approach to other areas.

This was the genesis of the first principle: all collective human activity – underlying not only financial markets, but also history and geopolitics – is driven by the same emotional and psychological forces resulting in the same behavioural patterns. Therefore, in order to understand the dynamics of history and geopolitics, it would be logical to approach them from a market technician's perspective.

History and the collective behavioural patterns that determine its course are products of the human decision-making process, and therefore, by extension, the brain. The earliest section of the human brain to develop was the stem, which governed the majority of the body's basic functions. During the early stages of human existence, it was also instrumental in assessing the place of an individual within the tribe. The acceptability of every action, and the continued inclusion of a single member of the tribe, were gauged within the collective. Rejection by the tribe meant a severe reduction in an individual's ability to survive. Those who did survive would, by definition, have developed a keen sense of what was required to preserve their place. As a result, the tribe developed a collective consciousness to which all its members were connected to various degrees.

Only relatively late in human development have we acquired sophisticated functions in the middle part of the brain, where emotions are processed, and in the frontal lobes, where logic and reasoning are enabled, allowing for a more comprehensive thinking process. The recently evolved frontal lobes have not yet had time to assume complete control of human thought and action; the older sections of our brains still predominate, producing highly emotional behavioural patterns that can, at times, override the brain's higher centres. The inescapable conclusion is that logic has not governed human history, which has instead been influenced by collective emotional responses. Although individuality is valued in many societies, we are all to some extent deeply linked to each other via our lower-brain functions. Few people are able to maintain their independent-mindedness in the face of strong group response.

Human social constructs, such as a city-state, regional power, empire or religion, all manifest a collective consciousness that processes information and then responds on a predominantly emotional basis. It is this group engine that drives both short- and long-term patterns; individuals may not recognise their part in this dynamic, but, when observed from a distance, these responses can be perceived as existing within a cycle. Once the algorithm of a natural cycle is understood and recognised, its characteristics can be used to discern where a society or societies are situated within it and where they might be heading. It is these cycles that underpin the geopolitical model described in Section II.

2. The fractal nature of history and geopolitics

One of the most powerful branches of technical analysis has been developed around the so-called Elliott Wave principle, originally proposed by a prescient American accountant R. N. Elliott in 1928. Many modern scientific concepts were embedded in his work long before becoming established, such as the fractal nature of the universe. Fractal theory holds that a complex process can be understood by identifying the smaller, simpler processes it contains, each of which is identical to the whole, only smaller. A common example of the many fractals found in nature is broccoli: each floret of the vegetable echoes the whole. Elliott identified repetitive cycles in market upturns and downturns (measured in 'waves'), and was further able to classify the emotional character of each distinctive sub-wave.

This provided the intuition behind the <u>second principle</u>: human emotions and collective-subconscious reactions are invariant to scale, thus producing exactly the same patterns of collective behaviour from the smallest indigenous tribes to the largest and most advanced empires. Thus, what the Elliott wave method did for market analysis, the "Five Stages of Empire" model strives to do for geopolitics: studying the ebb and flow of empires throughout history can enable us to pinpoint the mechanisms that cause civilisations to rise and fall; and these principles apply equally to regional powers, which are in effect smaller fractals engaged in the same process – to scale – as empires.

The term 'fractal' was coined by the late mathematician Benoît Mandelbrot in 1975, when he solidified hundreds of years of thought and mathematical development and laid the ground for a new branch of mathematics called 'fractal geometry'. Mandelbrot himself defined it as "the study of roughness, of the irregular and jagged." He went on to demonstrate how it applied to multiple natural and man-made phenomena, which in hindsight wasn't all that surprising, given that roughness is omnipresent in nature and human affairs. Mandelbrot explained that the objective of fractal analysis was to "spot the regularity inside the irregular, the pattern in the formless." He went on to say: "Consider social science: the devastating rhythm of war and peace, the unequal distribution of wealth in society, the dominance of big companies in an industry – all can be analysed as irregular fractal constructs that have more regularity to them than was first assumed...Fractal structures have been observed even in the frequency and intensity of warfare over five centuries of European history… [Fractal geometry] accurately describes some fundamental principles of how people often think and behave: in hierarchies, with repetition and scaling." (Mandelbrot and Hudson (2008)).

3. The asymmetry of slow build-up and fast release of geopolitical risk

As a former geophysicist and seismologist, this author has more than a passing acquaintance with the dynamics of earthquakes. They represent one of the best analogies from the natural world to describe the asymmetry in how risks can slowly build up in a system, in the same way that tension between tectonic plates builds underneath the surface over many years and decades; and how then, all of sudden, the pressure is released in a matter of minutes, bringing total destruction and utter chaos in its wake. The financial market equivalent of such asymmetry would be the slow build-up of hidden risks during the development of a speculative asset bubble, which can take many years, followed by a spectacular collapse over a very short period of time, typically within just a few days.

The nature of geopolitical risk is precisely like that: it builds up in a slow, almost imperceptible way over many years and decades, but once it reaches the critical point, the ensuing collapse is swift and all-encompassing. As an amateur historian with a life-time interest in military history, this author has studied the growth and declines of past empires, large and small, and has found such asymmetric pattern manifesting itself in each and every case – this constitutes the <u>third principle</u>.

Thus, the "Five Stages of Empire" model, described in the next section, is based on the following three basic premises:

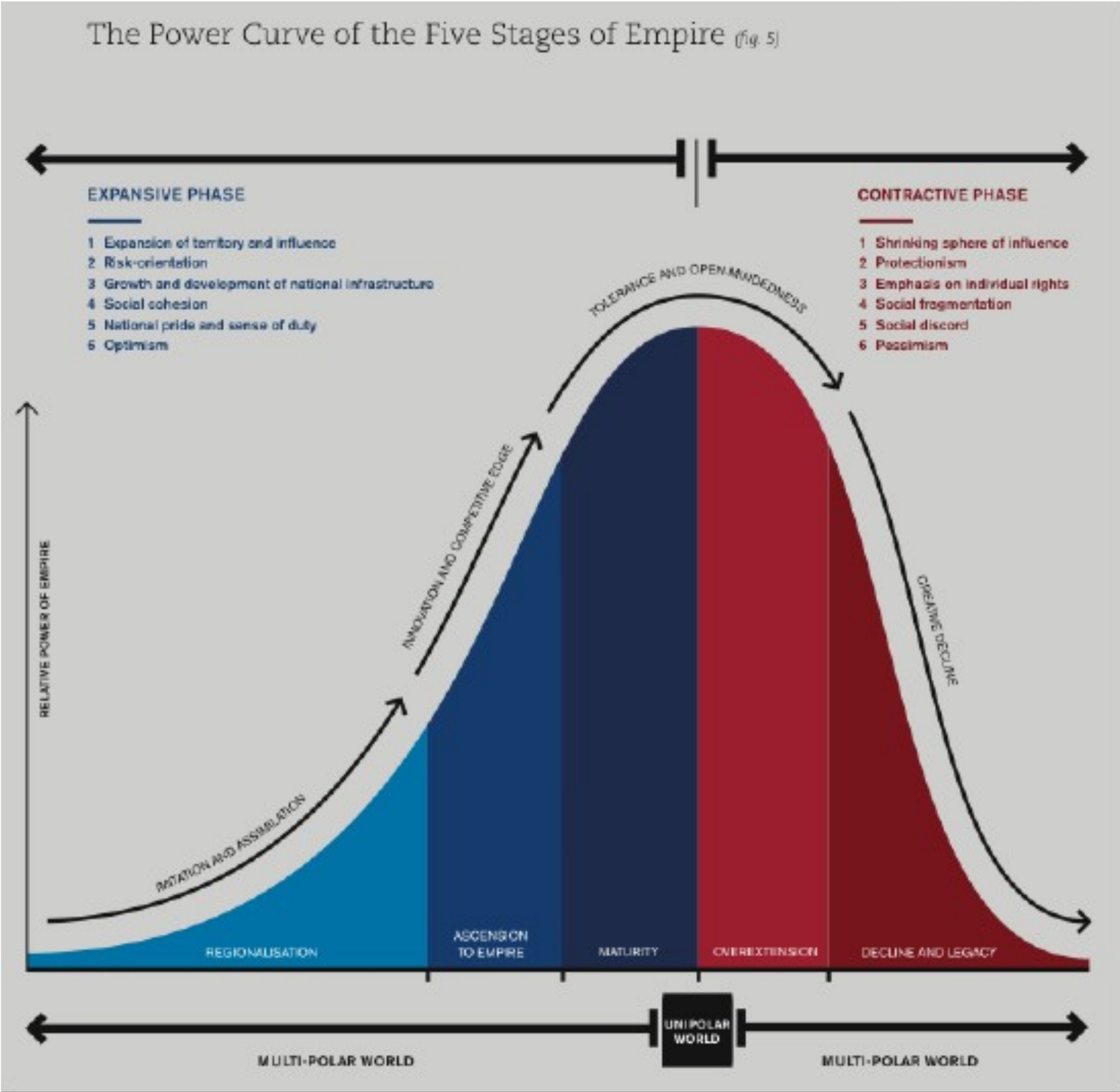
- **Recurring and recognisable collective behavioural patterns, which manifest themselves in financial markets and in other areas of human activity, also drive geopolitical cycles;**
- **These collective behavioural patterns repeat and replicate themselves not only through time, but also on different scales – tribes, nations, regions, and empires;**
- **The nature of geopolitical risk is asymmetric: slow build-up and fast release; correspondingly, the shape of the growth and decline curve of an empire is skewed: it takes a longer time to grow and mature than to overstretch and decline.**

The Five Stages of Empire

Below we present a model of growth and decline of civilisations, which can assist in understanding history's 'big picture' and in accurately assessing current and future geopolitical environments. To illustrate the influence and power projection of an empire, Figure 1 uses a graphical representation of the five stages in the shape of a bell curve. Empires are not all the same, of course, but the majority of them exhibit a similar distribution, peaking at about 60–70 percent along their life cycles. The Five Stages of Empire are as follows:

1. **regionalisation**
2. **ascension to empire**
3. **maturity**
4. **overextension**
5. **decline and legacy**

Figure 1



As an empire grows, the world around it tends towards unipolarity, until at its peak it comes to dominate its surroundings. Then, as it declines, there is a trend towards multi-polarity as it weakens and its neighbours strengthen. Demographics lie at the heart of an empire's growth, and they provide a measure of its energy, predisposition to risk and value system. Moreover, all empires display a social composition divided between the core population and the workforce that has freed it to focus on expansion. In ancient times, slaves and serfs filled this role. Since the abolition of slavery in the West, they have been replaced by indentured labour, colonial subjects and the working classes.

The first three stages of an empire are associated with the qualities of expansion; optimism; appetite for both individual as well as collective risk; investment in national infrastructure; a sense of cohesion and national duty; social cooperation; pride in national achievements and values; and, as the limitations of material world comfort are experienced, the search for fulfilment and a better future. During the expansive phase, growth is not linear but occurs in spurts interspersed with pauses for consolidation. As

the region or empire becomes more economically powerful, it seeks to extend its influence as far and wide as possible.

There are no cases in history in which a wealthy country with strong demographics has not chosen to militarise its economic wealth, justifying such action by trade protectionism, access to natural resources, territorial control, political influence and domination of the widest possible economic sphere. With industrialisation, the size and power of empires have increased, along with the destructive potential of their war-making capacity. Nations must now carefully consider the cost/benefit analysis of war. As a result, they may commit hostile acts that are economic rather than military by nature. However, it would be a grave mistake to be lulled into a similar false sense of security as were the nations of the world prior to World War One, who erroneously believed that the close linking of global trade mechanisms would prevent war. All global trade does is to raise the threshold for all-out war; it does not render it obsolete.

The last two stages of empire are governed by the process of decline. Its hallmarks include a lack of social cohesion and cooperation; an emphasis on the rights of the citizen as opposed to a sense of duty to the nation; protectionism; the inability of the empire to use foresight to invest in vital infrastructure for its future survival; unhappiness and a sense of exclusion; the fracturing of society into social sub-groups; social discord; and pessimism. We shall now consider each individual stage of the empire cycle in turn.

- ***Regionalisation: The First Stage of Empire***

Early in the growth of a regional power, a struggle occurs between various states within the same geographical vicinity, with the victor amalgamating all of the others. (Ancient Rome, for example, absorbed other city-states before going on to control the whole of the peninsula and its surroundings.) This enlarged state then becomes a player in the game of nascent empires, aiming to expand further until it attains imperial status. The key driver prompting this behaviour is a growing population, which both needs to be fed and provides extra "risk capital." The wealth of a new regional power increases through conquests, the spoils of war and the development of new trade relationships.

The regionalised entity's political and military establishments then take root, along with the society's core values. The military would, by this point, have developed a well-honed edge, making it a formidable opponent – although it would still be a long way from becoming the dominant force in its sphere of influence. Plans for expansion would continue to take into account the asymmetry of the regionalised power base in contrast with the local hegemon. The regional power would seek to make gradual and incremental gains until enough strength had been accumulated for a direct confrontation.

The catalyst propelling a nation from regional power to empire is the point at which it can no longer sustain its economy internally, particularly with respect to the acquisition of natural resources, so it is

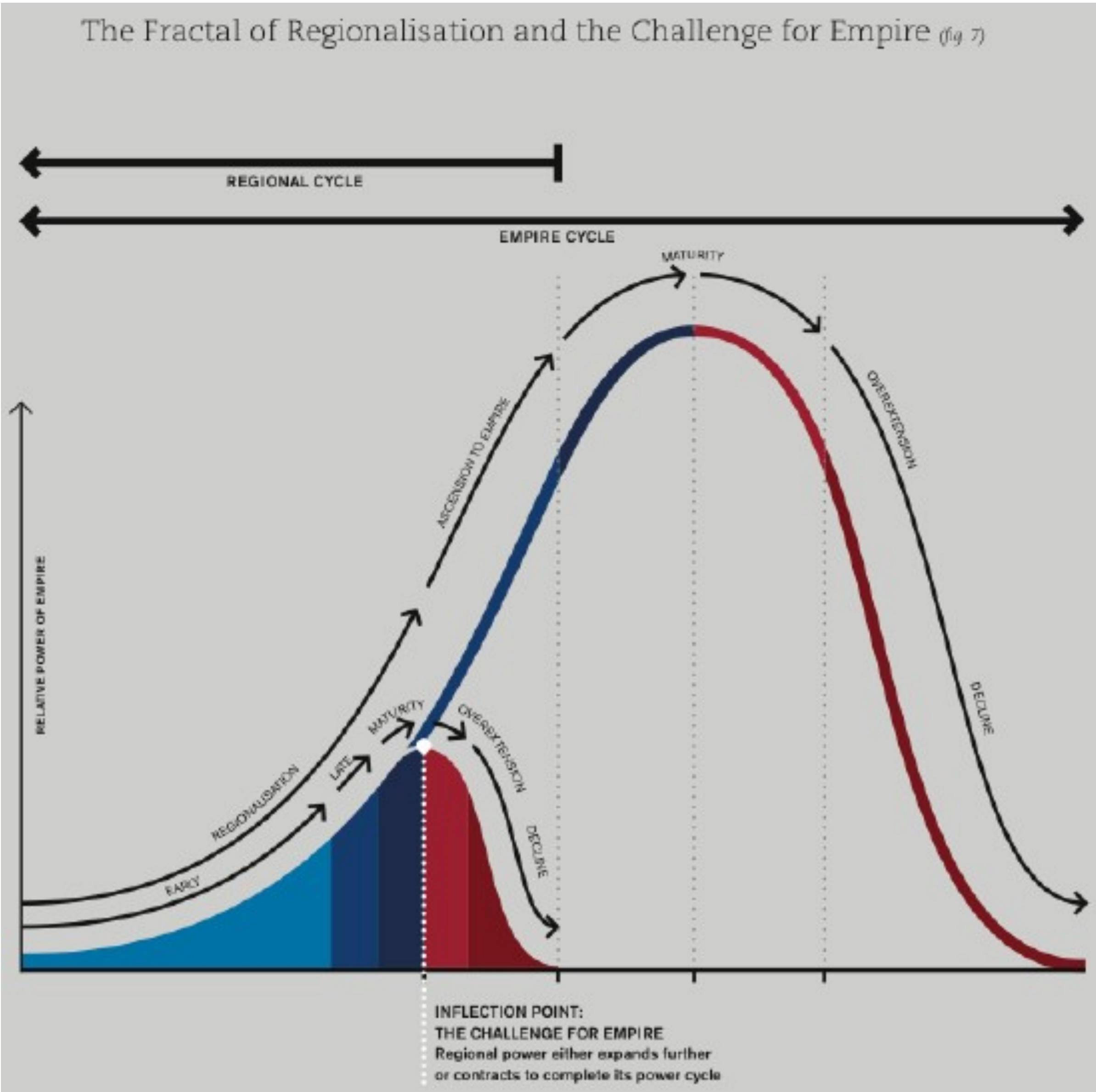
forced to look outside its borders. The crystallising moment comes when its military becomes strong enough to take on the powers around it with a good chance of success.

As an empire's core population increases, so does its demand for an enlarged menial workforce to match its growing economy and to focus the core population's energies on expansion. Traditionally, the army drove this demand: as the need for it to expand became more urgent, manpower was redirected from the maintenance of an agrarian economy. Additional labour was then required in the fields to grow and harvest crops. The Spartan solution was to annex other lands and rededicate the subjugated populations to food production, thereby freeing the Spartans to form one of the first large and permanent armies.

Civil war often attends rising empires that are approaching the end of their regionalisation stage. For the regional power in question – assuming it survives its civil war intact – the conflict can act as a coalescing agent, preparing the nation for the quantum leap to ascension to empire. Examples include the English Civil War (1641–51), the American Civil War (1861–65) and the Chinese Civil War (1927–37 and 1945–49).

Box 1: The Fractal of Regionalisation

Understanding the relationship between a regional power and an empire is essential to grasping one of the most critical drivers for change in geopolitics at any one time. At what stage do regional powers become empires? What happens to regional powers that bid for empire but fail? The regionalisation stage is a fractal of the Five Stages of Empire. There are early and late stages of regionalisation, followed by maturity, overextension and decline. The inflection point – at which a nation either remains a regional power or ascends to empire – occurs at the maturity stage within the regionalisation cycle. If the demographic trend at this point exhibits momentum and continues to grow, it will force the regional power to expand as a result of an ever-pressing need for resources. The more forceful the demographic surge, the more likely the shift from regional power to empire. (Figure 2 is the Five Stages of Empire graph, but this time showing the fractal of regionalisation and the inflection point.)



However, the success of a regional power in its challenge will directly relate to the status of others situated within or near its domain. If it has no competitors, the regional power will certainly become an empire. However, *if other potential empires of the same order exist in the vicinity, the challenger will only have a reasonable chance of success if one of those powers has reached the overextension stage in its own cycle, thereby creating a power vacuum. Timing is, therefore, crucial as to whether or not a new empire comes of age.*

Failure by the challenger could result in its absorption by the victor, but might also result in the challenger's rapid overextension and decline. It will then subsequently reorganise itself to repeat the cycle. Thus, Rome's triumph as a regional power was also about Carthage's failure as a mature, overextended state. France built a limited continental empire in the eighteenth century, yet failed to successfully challenge British power in the race towards a global maritime empire. It was therefore limited to the status of regional power in a struggle that lasted for 100 years. France did make two further challenges during this time, as a revolutionary and then later an imperial power, but ultimately failed in both attempts. Similar examples include Germany's challenge to the British Empire in 1914 and 1939, and Japan's offensive against the Asian and Pacific territories of the Western powers in World War Two. All resulted in the collapse of the regional challenger, which subsequently underwent a new regional cycle.

- ***Ascension: The Second Stage of Empire***

When a regional power successfully absorbs a number of similar rivals, it then spreads out, projecting its power further. This process marks the ascension stage. Once again, smaller entities are amalgamated and absorbed (e.g. Macedonia and Greece, Rome and Carthage). The algorithm of growth, given a simple model consisting of nothing but regional powers, operates as follows. When one entity conquers another, it becomes twice as powerful as the next entity it takes on; all things being equal, it will therefore succeed in half the time. This stage of growth is the most heady and dynamic, as the wealth and power of the new empire increase exponentially. Income from expansion is vastly greater than expenditure.

Demographic expansion is once again the key, pushing regional powers to expand their influence and bring in raw materials to sustain their economies. The population will be highly risk-orientated, which constitutes a big advantage in confrontations against rivals in a mature, overextended or declining phase of the empire cycle. The ascension phase is characterised by clear strategic planning and execution, along with an extensive degree of confidence that is expressed as a sense of collective destiny.

Britain entered its ascension stage early in the mid-sixteenth century. It had ample supplies of wood, bronze and iron with which to build ships, but its economy was underdeveloped. It opted to acquire a share of Spain's wealth through privateering and freebooting, and in the process obtained the financial resources (gold and silver) to allow it to ascend to empire. American imperial evolution began with the early twentieth-century oil boom and the motor industry. China began its latest ascension in the mid-1990s, rather quietly, without anyone paying much attention at the time.

An ascending power seeking to supplant an established, mature one can only do so when the hegemon begins to decline. During the ascension stage, the core population of the ascending civilisation swells with a high concentration of people thirty years old or younger. Imbued with the qualities of youth, it is

therefore expansive, risk-orientated, resilient and flexible. This risk-positive factor is further pronounced in cultures where males predominate significantly over females. China's population today, for example, is 56 percent male, and therefore has 5 percent extra "risk capital" to deploy during its ascension stage.

- ***Maturity: The Third Stage of Empire***

In the cycle of empire, a phase of equilibrium and stability naturally follows a period of conquest and expansion – assuming the borders of the new empire are well defined and well defended, and the administrative system highly organised: this is the maturity stage of empire. Without gains from conquest, a stable economy is required to generate enough revenue both to sustain a defensive army and to maintain civil harmony. Over time, income and expenditure become balanced during this stage. In its mature stage, Rome restricted the size of its army under Augustus to 300,000 to 400,000 men, in order to balance the budget. Even more extreme was the Western Jin Dynasty's attempt to generate a huge peace dividend in China in the third century AD, after attaining supremacy over all of its challengers: the entire army was disbanded. However, neither the Roman nor the Chinese strategy was ultimately successful in forestalling the eventual decline of their respective empires.

The beginning of imperial maturity is often witness to sweeping social changes within the empire. Population growth slows, and the ratio of young to old becomes more balanced. The drive to expand decelerates, and the empire enters a period of unmatched prosperity. The core population grows wealthy, achieving a high standard of living, which blunts the tougher qualities that drove previous generations during the regionalisation and ascension stages. When new wars erupt, the empire finds itself beset by a manpower shortage for the first time that can only be solved by inducting the menial workforce into the military. Once such wars are over, the returning soldiers from this class reject their former lowly status and demand equal rights of citizenship. The core population begins to integrate with the awakening menial workforce, but the reins of power are still held by the former. Significant internal power shifts by the end of the (subsequent) overextension stage usually result from the social changes initiated during maturity.

A frequent characteristic of empires near the end of the maturity stage is the advent of peak internal conflict. Without an external target to act as a focus for an empire's aggression, its leaders turn inward, and a power struggle results. Such conflicts can weaken the empire significantly. The distraction may also provide a strategic opening for any up-and-coming regional power awaiting the right opportunity to strike. Such critical moments can be particularly explosive in the case of rigid power structures, such as dictatorships and monarchies. On the other hand, democratic empires may witness a more subtle internal struggle between competing groups. In Britain, the decade that followed the Boer War saw a

great deal of political upheaval that, according to Winston Churchill, took the empire to the brink of civil war. The US in recent years has seen the radical politics of the Bush-era neo-Conservatives come into play, representing a dramatic swing away from traditional American values and producing a backlash with tumultuous political consequences.

- ***Overextension: The Fourth Stage of Empire***

Overextension signifies the onset of gradual decline, initially apparent only to the most astute observers and ending in financial disasters and military challenges.

At some point an empire's success induces complacency, arrogance, corruption and other manifestations of decay, as the comforts of civilised society give rise to expectations that the status quo will be maintained. The transformation of an empire from 'barbarian' to 'civilised' is now complete, and over time it will become ripe for domination by another aspirant. In the early stages of overextension, the cost to the economy of running an empire is no longer compensated for by revenue. The empire then begins to grow its debt burden, which increasingly limits its ability to raise military expenditure precisely at a time when it is most threatened by new challenges.

It also becomes increasingly difficult for an overextended empire to motivate its people to fight once they have attained a high and comfortable standard of living. Since the Vietnam War, the US has become increasingly reliant on its technology to ensure that American wartime casualties remain low. However, in wars where there is no alternative to soldiers on the ground, considerable public outcry over fatalities occurs.

Wars are expensive, more so as technology bleeds from the hegemon to the challengers, making it very costly to maintain the military edge. In the overextension stage, a dominant empire will not reduce social or defence commitments, nor increase taxation. It moves rather into financial deficit, which saps its strength. Financial-market peaks take place past the pinnacle of the empire cycle, as the system finds ways to increase spending by raising debt. During these periods, there is always talk of reducing costs, but doing so proves consistently unsuccessful. One way in which an empire can attempt to reduce defence costs is by building new alliances to spread the load – although doing so only delays the inevitable at best. However, it is worth noting that, when an empire overextends and then goes into decline, it is forced to scale back its influence in terms of both military presence and financial holdings. This spells the beginning of its end.

The social integration that began during the maturity stage with the demand for full rights by disenfranchised citizens now progresses rapidly during the overextension stage. The composition of

society by the end of this phase of the empire cycle will have dramatically altered. Formerly low-status classes can now gain entry to the empire's power core. The barbarian auxiliaries drafted into the Roman legions, for example, gained leverage and ultimately control over Rome. The British Empire's reliance on its colonies in both world wars helped to accelerate its break-up after World War Two as they demanded independence. In the US, African Americans experienced a transition from slavery in the regionalisation stage to underclass in maturity. Black soldiers have served in US wars since the American Revolution, but, following the Vietnam War – in which they fought in greater numbers and in greater capacity than ever before – they pressed for validation as the civil rights movement intensified, and entered the middle and power classes. This increasing degree of social integration is perhaps most effectively symbolised by the 2008 election of the first black US president.

As the former underclass rises, a new wave of people from poorer nations fills the roles they have left behind. The problem of manning the armed forces continues, and the social makeup of the military continues to evolve as a result. The core of the problem lies in the fact that society now has a greater proportion of older citizens than younger ones. As a result, its decision-makers become more conservative and less adaptive in solving the growing challenges of the empire's decline.

- ***Decline and Legacy: The Fifth Stage of Empire***

For an empire in the final throes of overextension, the cost of power vastly outweighs its economic benefit. Imperial sustainability becomes increasingly unfeasible, and the system rapidly begins to disintegrate. Although the signs would have been present during the overextension stage, other great powers would, for the most part, not have begun to recognise the waning empire's vulnerability until the final stage of decline and legacy, when external and internal dynamics deteriorate at an alarming rate. Enemies on the periphery then awaken to the progressive ebbing of vitality, and become emboldened by incremental successes that can soon escalate. The old empire is now prey for other regional powers in the ascendant. The rate of decline surprises the world as a formerly iconic empire collapses.

This stage of decline and legacy can be described as the evolution of multi-polarity. The unipolar world dilutes as the hegemon grows feebler, while challenging nations grow stronger and begin to exert a newfound influence. Characteristic of this stage is the empire's collective denial that it is declining, expressed by the body politic and by the people themselves. Some major symbolic event then becomes the catalyst that shatters the illusion of the status quo. The response by the leadership is to attempt to more deeply embody the perceived 'original' values of the empire. When their actions fail, a path is opened to new leadership, reflecting the new social order. This process can appear as though hope has been renewed; yet often it is, in effect, the beginning of the end of the empire, leading to the final phase – legacy. This endures to some degree after all empires have declined, in the form of a collective value

system that persists in the region in which the empire was formerly active, suffusing its smaller units and remaining until they are, in turn, subsumed by the next ascending empire.

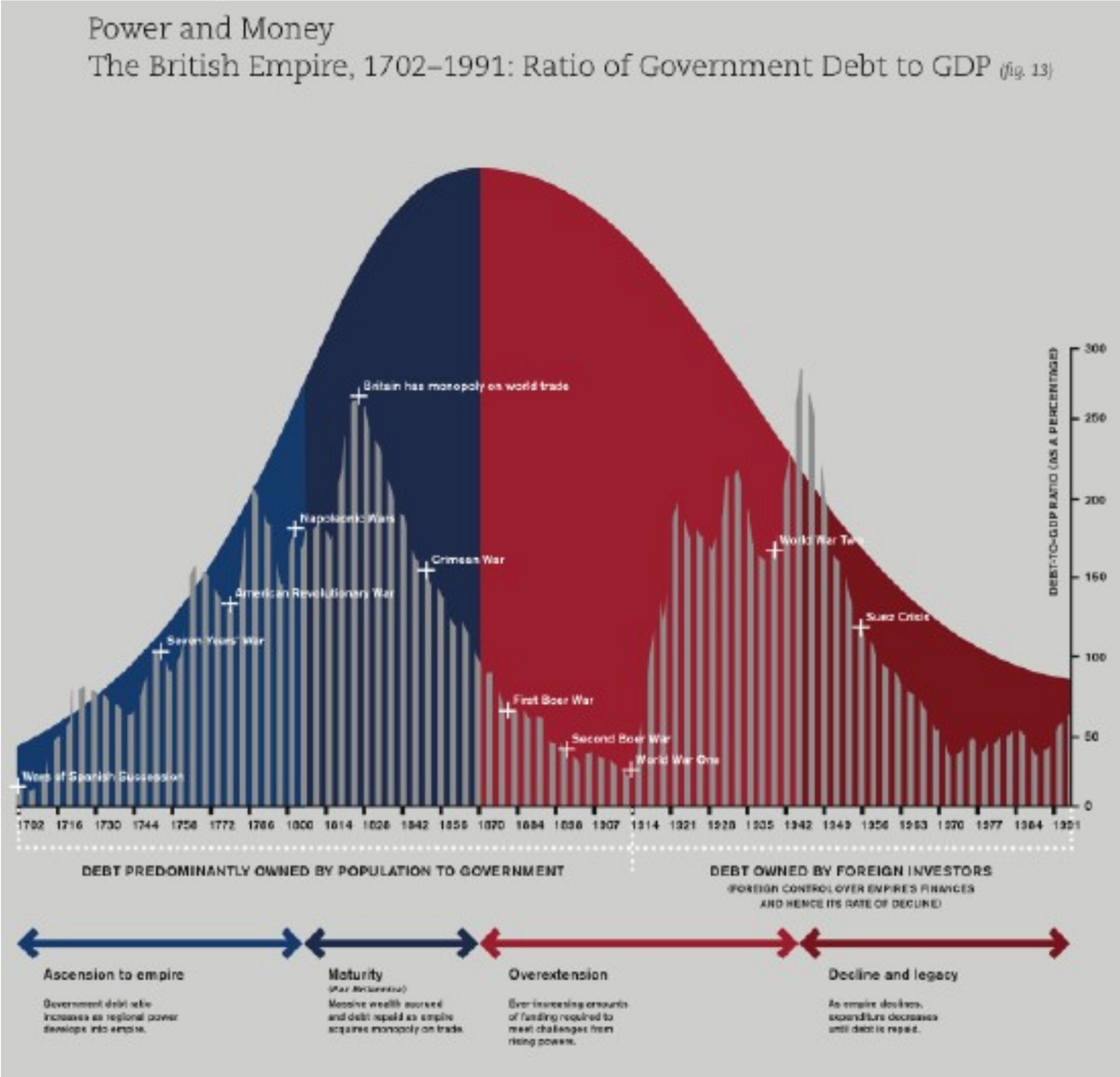
The advent of nuclear weapons and the accompanying threat of Mutual Assured Destruction (MAD) may well have altered the dynamics of decline, as borne out by the Cold War. Whereas in the past, empires in decline and legacy were often swallowed up, those wielding the nuclear advantage have the privilege of being protected by it as they re-form into their next incarnations. Europe and Russia have certainly benefited from this new model, as will the US, particularly as its missile shield defence system is developed further.

Europe is an example of a region in legacy. Following the collapse of its empires post-World War Two, it has gradually been trying to rebuild itself into the European Union (EU). However, as regionalisation is typically driven by expanding demographics, the current forced construct is unstable, as it has not taken place by a process of demographic attraction (i.e., having a core nation with expanding demographics to which other nations are drawn voluntarily or by force of arms). Instead, it has been built around the core of "old Europe," which has negative demographics, by attracting peripheral nations with more positive demographics.

However, without greater benefits to the subsumed nations (e.g., being part of a much stronger and growing larger entity), it is unlikely that this forced regionalisation will work: it does not have the characteristics of an entity that could manifest a strong regional power base, and as such we are unlikely to see Europe become an essential force in the world once more. Instead, it will more likely end up with a foreign policy akin to that of a greater Switzerland.

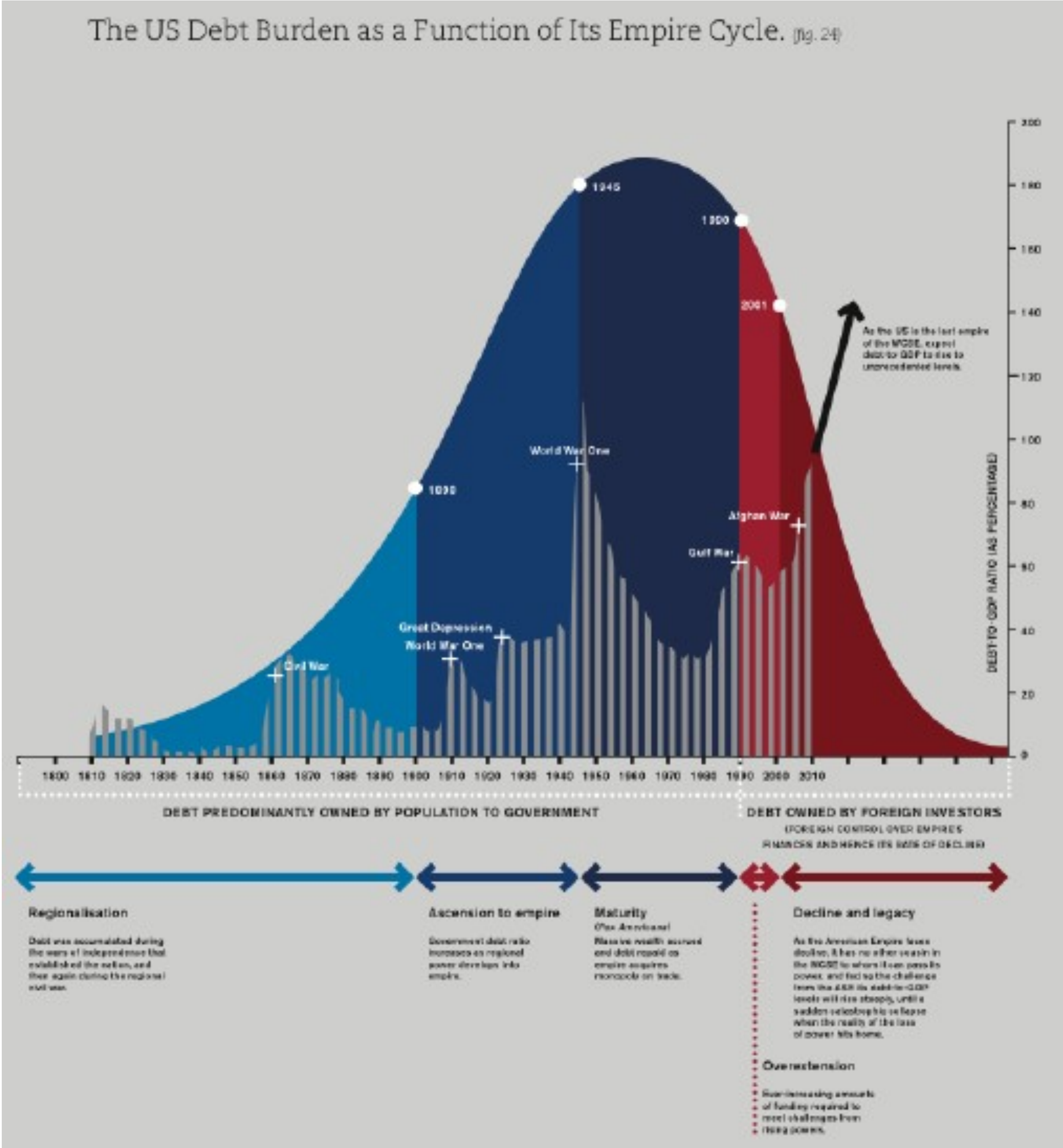
Box 2: The Cost of Empire

Empires cost enormous amounts of money to build and maintain. As such, their success is highly correlated to prosperity. History has seen evolution in the complexity not only of empires, but also of the financial systems supporting them. With the Renaissance came the concept of government debt, which could finance a nation's expansion. Britain was but one empire that benefited from this novel fiscal principle. Its empire's debt-to-GDP ratio clearly followed the Five Stages of Empire model.



In stages 1 and 2, the cost of the empire's expansion is clearly shown by a dramatic increase in the ratio, with the debt funded domestically. In stage 3, the benefits of peace and profitable trade produce a massive empire dividend that returns the ratio to a low point. In stage 4, the cost of the empire's social structures and the defence burden required to fend off challengers increase, and so does the ratio, with the debt funded from the broader empire, to levels slightly higher than the previous peak. In stage 5, eventually the empire breaks up and the spending required to maintain it decreases dramatically, ultimately returning the ratio to a low point. While government debt during the early stages of empire was owned by British citizens, in the last two stages it was owned predominantly by the US, which then used this hold over Britain to force it to withdraw during the 1956 Suez Crisis, effectively ending Britain's imperial age.

The chart below illustrates the evolving debt burden of the United States, which appears to follow a very similar pattern. During the previous debt-to-GDP peak, and throughout US history prior to that point, the debt was predominantly owned by the American public. In contrast, the current mountain of debt is owned by foreign powers – and particularly by China, which is clearly a geopolitical rival in ascendancy.



Practical Implementation

Geopolitical risk is driven by the motivations and actions of a small group of powerful national actors. A good model should be able to pinpoint where each of them is situated within the geopolitical cycle and relative to each other. In turn, this allows one to identify potential future geopolitical fault-lines: areas with heightened risks of political confrontation and military conflict which may have potentially 'game-changing' consequences.

The influence of Europe and Russia as geopolitical actors has diminished significantly, as both regions are currently in the late legacy / early regionalisation stage. Given their unfavourable demographics, neither is expected to be in a position to mount a serious geopolitical challenge and ascend to empire any time soon. The US is exhibiting the tell-tale signs of late decline, which is expected to accelerate given its debt situation, low economic growth, increasing social inequality, and polarisation of domestic politics. For the foreseeable future, the US political establishment will be fighting the rear-guard action to protect and preserve as much of America's waning power and influence as possible.

The Middle East is clearly in a late regionalisation stage: the Sunni / Shia rivalry can be viewed as the modern-day equivalent of the protracted regional civil wars of empires past. Whoever manages to ascend to dominance in the region will most likely be led by a strong polarised Islamic leadership that will refuse to have close ties with the Western world, unless the dynamics of China's expansion force them closer together.

Brazil and India are both in the later stage of regionalisation, but they are unlikely to move into the next stage of empire and expand further, due to the absence of a power vacuum to move into, and thus they are likely to follow the trajectory of France, who managed to become a very strong regional power, yet never succeeded in challenging the hegemon.

Finally, there is China, which is clearly in ascension – ever since the late 1990s, when it made a conscious decision to expand into the world to acquire resources to feed its growth. As with all empires at this stage, it has been propelled by very strong demographics: not only does it have the largest population in the world, its age and gender composition have also been conducive to further expansion, suggesting a higher risk tolerance. But there is a caveat: favourable demographics are expected to peak around 2025. Thereafter, China will start to age quickly, with the older population slowing down growth and leading to a much more conservative posture. This observation famously prompted analysts at Goldman Sachs to ask whether China will be able to get rich before it grows old.[2] The geopolitical equivalent of this question is: "Will China be able to mature as an empire before it overextends and starts declining?"

Two complications exert additional pressure on China's leadership. First, the world is in the ascending part of the Kondratiev Wave cycle and will be until 2025, which typically results in intensified competition for resources and increased geopolitical friction.[3] Secondly, explosive population growth in developing countries, which is occurring in the context of rapid industrialisation and urbanisation, is putting a relentless squeeze on global natural resources and climate. Thus, as China concentrates all of its efforts in the next 12 to 15 years on breaking into the big league and becoming a full-fledged empire,

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[2] "Will China Grow Old Before Getting Rich?" Goldman Sachs, Global Economics Paper No. 138 (14 February 2006); accessed on 10 /09/ 2012 at http://zonecours.hec.ca/documents/H2008-1-1518573.Will_China_Grow_Old_Before_Getting_Rich_2-14-06.pdf

[3] In the mid-1920s, the brilliant Soviet economist Nikolai Kondratiev developed his Wave Theory, which proposed that alternating cycles of rising and falling commodity prices (plotted as sinusoidal K waves) follow a predictable pattern in economics, averaging approximately 53 years each. In practical terms, a K wave represents around 25 years of mounting commodity prices, followed by a downward cycle lasting another 25 years. The current ascending phase started around the turn of the century.

it is bound to face tremendous cyclical and secular headwinds with respect to resource availability, with potentially serious geopolitical implications and risks of a major conflict.

So how can a global macro manager use this analysis in practice? It may be helpful to make a distinction between two different types of macro practitioners: short-term traders and long-term investors. For the former, our earlier earthquake analogy may be instructive. People living in seismically active areas go about their daily lives in much the same way as everyone else, with one important exception: there is a constant awareness of the danger. Companies and local communities organise regular training drills and exercises; households have pre-packed emergency bags with first aid kits, drinking water, flashlights, portable radios, and warm clothes; individuals mentally prepare by visualising their actions in case of a major earthquake (e.g. hiding under a table or standing inside a door-frame at the first signs of serious tremors). People may end up living their whole lives without ever encountering the "Big One," but they constantly prepare for it to maximise their chances of survival.

By analogy, a global macro trader may spend long periods of his career operating in a stable environment, punctuated by a few defining major geopolitical 'earthquakes.'[4] Thus he should always be aware of the dangers; he should map out and think through various geopolitical stress scenarios; and he should visualise his actions in case of a geopolitical emergency. The hallmark of truly outstanding discretionary macro traders has always been "the ability to imagine configurations of the world different from today and really believe it can happen."[5] Such ability must extend to the realm of geopolitics, albeit with a clear understanding of the long-term nature of the risks involved.

In terms of day-to-day trading activity, this situation is not that dissimilar to a global macro manager who is living through a speculative asset bubble: he knows it will come crashing down at some point and he needs to be fully prepared when it does. But it can take many years, and in the meantime it would be foolhardy and expensive to fade the bubble. So instead, the manager consciously rides the bubble, but he does so very carefully – with the eventual collapse in mind – by maintaining maximum flexibility (e.g. highly liquid instruments) and downside protection (e.g. asymmetric trade construction).[6]

In the case of long-term institutional investors, the arguments for explicitly incorporating geopolitical risk as part of their analysis are even more compelling. First, given their inter-generational investment horizons, they are much more likely to face a geopolitical 'earthquake' at some point in the future. Secondly, because they see themselves as 'patient money' – unleveraged and unconstrained – and thus able to withstand interim shocks and illiquidity, based on their top-down macro analysis they are more likely than short-term traders to put on less liquid, relative value positions, with a view to normalisation

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[4] **For example, the near collapse in 2008 of the over-leveraged Western financial system was precipitated by America's imperial overextension during the previous decade.**

[5] **Bruce Kovner interview in "Market Wizards" (Schwager (1989))**

[6] **For an excellent discussion of managing a global macro fund through a speculative bubble, see Colm O'Shea's interview in "Hedge Fund Market Wizards" (Schwager (2012))**

over the medium- to long-term. But it is precisely these positions that are bound to suffer the most if the slowly accumulating geopolitical risks suddenly materialise.

Whilst a group of so-called 'extra-financial' risks, usually referred to as ESG – environmental, social and governance – have become recognised, if not fully priced into markets effectively, geopolitical risks are not yet well understood by the markets and hence are not really priced in. Indeed, if the "Five Stages of Empire" model is correct, then over the next 12-15 years we are bound to see the full implications of the decline of the Western world and the rise of the East led by China, which is about as big as a geopolitical shock can be, given that such power shifts only occur every four or five centuries. The medium term financial consequences of this will likely be:

- **Highly inflationary policies (i.e., excessive printing of money) in America and Europe**
- **Stagflation in the West, leading to destruction of wealth in the middle classes**
- **'Militarised Keynesianism' in the US (i.e., massive defense spending as fiscal stimulus)**
- **Increasingly protectionist stance towards foreign government investments**
- **America's "Suez Moment" in its relations with China**
- **The end of the US dollar's monopoly as the world's reserve currency**
- **The loss of 'safe haven' status by the US and European government bonds**

Most importantly, as we undergo the geopolitical shock of not just one but many lifetimes, with enormous ramifications for our societies and lifestyles, the economic and financial consequences, along with the potential national policy responses, cannot be understood properly without a geopolitical model that is internally consistent and that can effectively explain both historical and current events.

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