The Dark Knight Rises

From the Iron to the Tech Curtain into a New Era of Security, Freedom, and Prosperity

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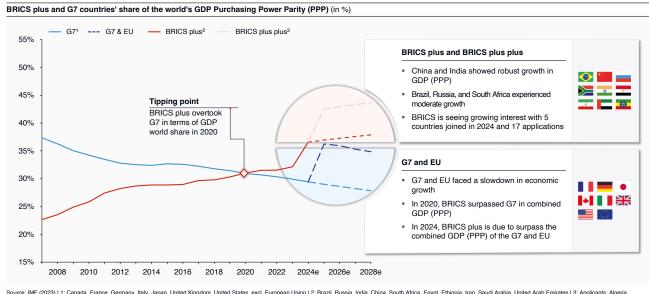
Management Summary

- In the area of geopolitics and economics, a new formation of blocs is occurring. On one hand, the BRICS/plus countries, led by China, have evolved from mere production hubs into global power centers with their own sovereignty, particularly distinguishing themselves from the G7/EU states. On the other hand, established institutions, once known for their integrative roles, are reaching their limits as they face structural delegitimisation due to their Western origins.
- The driver behind these changes is technological advancement. It serves as an exponential foundation for unprecedented efficiency gains and innovation, stimulating and disrupting numerous industries and various socio-political domains. It also sets the stage historically by enabling new players to enter the market with competitive offerings, surpassing former leaders and taking measures to protect their positions.
- Technologies and their associated components from raw materials, production machinery, and materials to know-how and intellectual property, standardisation bodies, and the adaptability of societies are becoming critical resources that must be protected as a top priority. Consequently, it is becoming apparent across many fields that a "Tech Curtain" is forming, analogous to the Iron Curtain of the Cold War, creating its own boundary regime.
- These developments have multiple impacts on trade and politics. For entrepreneurs, investors, and policy-makers, this necessitates fundamental decisions that are better made sooner and more clearly:
 - Choosing between a Single or a Dual Side Approach, depending on whether to operate in one or both blocs.
 - Deciding on a growth path: Whether to stabilise existing business or to focus on innovation and opportunities.
- Opting to operate in both geopolitical blocs brings higher complexity and uncertainty, but also presents greater opportunities for growth and success. Recommended actions include conducting an independent risk audit, assessing the current sourcing approach, reviewing the deployed tech stacks, deriving insights for the investment portfolio, and adjusting compliance and processes. These steps enable companies to adapt their strategies to the changing global landscape, mimimising risks and maximising new business opportunities.



Introduction

The "End of History" marks the beginning of a new era. Even if a quarter of a century has passed since the collapse of the division between Eastern and Western powers, the key players in the arena of world history remain the same: Communists and capitalists. The forces at play behind the scenes are just as familiar, embodied by Kondratiev's economic cycles and Moore's Law – concepts formulated by a Soviet economist and an American tech entrepreneur. These figures have captured general trends that continue to exert powerful influence today: The nature and effects of technological progress.



Source: IMF (2023) | 1: Canada, France, Germany, Italy, Japan, United Kingdom, United States, excl. European Union | 2: Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran, Saudi Arabia, United Arab Emirates | 3: Applicants: Algeria Bahrain, Bangladesh, Belarus, Bolivia, Cuba, Honduras, Indonesia, Kazakhstan, Kuwait, Morocco, Nigeria, Pakistan, Palestine, Senegal, Thailand, Venezuela, Vietnam

Figure 1: When BRICS overtook G7

Social transformations stimulated by innovation and efficiency gains were politically restrained following devastating conflicts. Symbols of this containment were the Berlin Wall and the Iron Curtain, representing the ideological divide in the systemic rivalry between individualistic and collectivist models of society and economy. This rivalry concluded with the dissolution of the Soviet Union, an event described as the "End of History," leading to the social metamorphosis of numerous Eastern European countries.

Yet, the USA, previously seen as history's victor, is losing strength. Known as the leader of the free world, the role model of individualistic social systems in terms of freedom, the rule of law, and democracy, is entering another phase of systemic competition. Simultaneously, another Most Valuable Player, China, is rising as a powerful rival, strengthening its position globally.

China has positioned itself as an antagonist not just geographically but also in sociopolitical terms, promoting a blend of Confucian-Marxist ideals that emphasise collective social norms – The Dark Knight Rises. Along with its allies, China is steadily creating economic, political, and social spheres that present themselves as alternatives to the prevailing Western standards.



The purchasing power of the BRICS countries already exceeded that of the G7 group in 2020. With the expansion of the BRICS at the beginning of 2024, this development has accelerated. Today, the bloc situation between the G7 states and the associated European Union on the one hand, and the BRICS plus states on the other hand, is a reality.

The consequences in the economic, political, and military spheres have become undeniable. This presents new challenges for political and economic stakeholders, including the need to identify, assess, and manage risks as well as their counterpart, opportunities, in order to capitalise on potential growth and enhanced prosperity.

The new and previously unknown situation is that innovation is no longer exclusively under Western influence, which has lost its dominance in this respect. For individual economic players, this means that previous business models need to be scrutinised; due to the formation of the bloc, they must be designed either in a unidirectional or bidirectional way. In addition, the legal, regulatory, and ethical framework conditions are not yet stable. Just as the Iron Curtain fell after the Second World War in the conflict between the ideologies, a technological curtain – "Tech Curtain" – is being established in the current ideological conflict. This situation gives rise to disproportionate opportunities with diffuse risks that need to be assessed by companies, decision-makers, and investors.

Emancipation of the East through innovation and efficiency

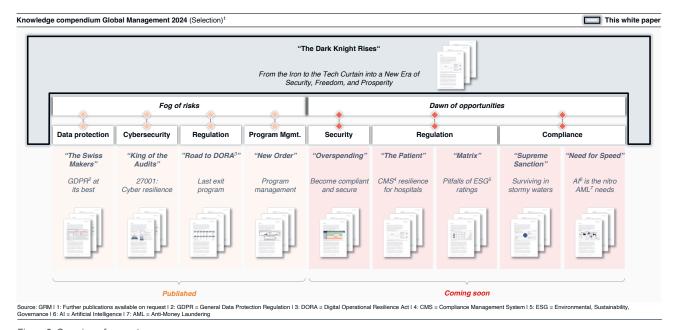


Figure 2: Overview of competence areas

This paper, titled "The Dark Knight Rises", explores strategies for leveraging corporate opportunities and mitigating risks in specific business areas to prevent the emergence of a technological border regime – a Tech Curtain – analogous to the times of the Iron Curtain and similar to the checkpoints of the Berlin Wall. It serves as the overarching foundation for a compendium that examines changes in the global economic landscape in regulation, IT, security, risk, and sanctions, since the revival of bloc formations. This analysis is conducted through the dual lenses of risk and opportunity, providing an integrated perspective on these developments.



Situation

In 1926, Soviet economist Nikolai Dmitrievich Kondratiev introduced the theory of long waves in the Berlin journal "Archiv für Sozialwissenschaft und Sozialpolitik". This concept, now globally known as the "Kondratiev cycles", represents a significant contribution to economic theory. This theory posits that the last two centuries of economic history have seen five major, extended cycles of growth, each driven by basic innovations: The steam engine, railways, electricity, the automobile, and information technology in the 20th century.

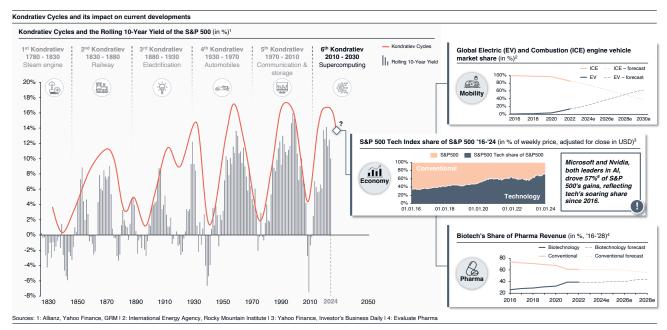


Figure 3: Kondratiev cycles with a focus on the present

Currently there are discussions on a transition from the fifth to the sixth cycle, with globalisation and demographic shifts presenting substantial backdrops. In particular, emerging countries and Asian markets are driving demand. It remains to be seen whether the innovative impetus required for a long-term leap in efficiency will continue to come from the Western economies. The progress achieved in the decades since 1990 from a Western perspective on the other side of the former Iron Curtain, combined with the ability to transform entire structures, could become a sufficient condition. The key factor is the readiness to adapt and the ability to embrace and drive innovation.

Even if it is not yet clear whether the sixth cycle will be established from the West or the East, one characteristic has now been identified: The increase in efficiency resulting from innovation is expected to impact various industries, unlike in previous cycles where only one industry benefited significantly. For example, railways were the main beneficiary in the second cycle, and the automotive industry in the fourth.

The reason for this lies in the successive development of distributed information systems in the last cycle, starting with the detachment from mainframe and the introduction of Unix systems; continuing in the next step with individual data processing, known as personal computers, long before the introduction of the Internet. The rise of one of the most valuable technology companies in the world is largely based on the rights to the

Openness of history for growth impulses from West and East



Windows operating system for personal computers; however, in 1999, the then CEO and current philanthropist Bill Gates was still able to publish a book on "Digital Business" without mentioning the Internet, which had only been transferred from a military standard (ARPANET) to civilian use a few years earlier.

The manager of another major US company first identified the effects that are now widely known as "Moore's Law". In 1965, Gordon Earle Moore, engineer and co-founder of Intel, formulated an observation from manufacturing practice according to which the number of transistors in integrated circuits doubles within a period of 12 months, at approximately the same manufacturing costs. (The period was later corrected to 24 months.) In logarithmic terms, this law appears to be a linear development; in reality, however, it is an exponential development that may be disruptive to established business models on a regular basis.

Technology is the engine for continued disruption

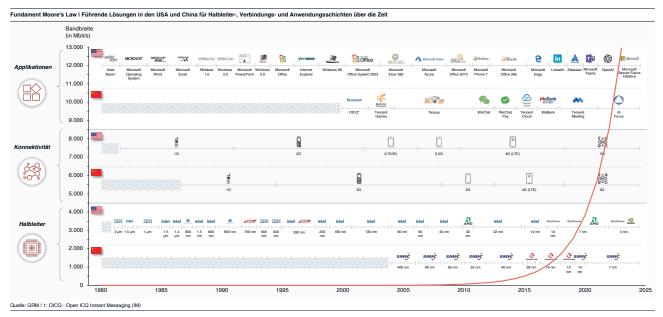


Figure 4: Technological progress is exponential

The disruptions can be observed in various industries: The replacement of fixed-line telephony by mobile and IP telephony, the shift from sound carriers and, as a result, linear television to streaming services, the introduction of electromobility. Daimler sold its final 9.1% share in Tesla in 2014, a stake it had acquired in 2009, realising a book profit of EUR 600 million. However, at Tesla's current market valuation, this stake would be valued at just over EUR 55 billion.

Figure 5 shows the growth potential that Asian manufacturers from the BRICS plus regions can realise compared to leading German or US manufacturers. For example, the number of electric cars delivered by the German manufacturer BMW grew by 321% between 2020 and the first quarter of 2024, while Tesla, the leading US manufacturer, recorded growth of 448%. However, all these successes are eclipsed by the Chinese manufacturer BYD's 2807% growth. The Mercedes-Benz Group is evading this transparency, which may be an indirect indication of its lack of success in the strategically important electric vehicle segment.

This illustrates the impact that technological innovations can have on corporate financial statements.



Consequently, it becomes crucial to confidently assess the risks and opportunities presented by fundamental technological developments and to adeptly manage their potential. The Mercedes-Benz/Tesla example or the comparison of the delivery figures of BMW, Tesla and BYD are just two of many examples of the revolutionary changes in industries and societies.

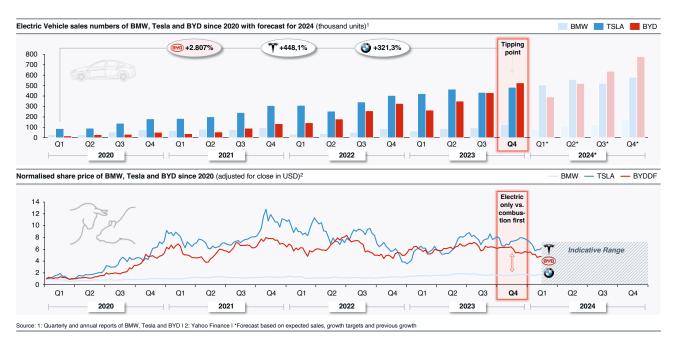


Figure 5: Electromobility triumph with winners and losers

In addition to these technological challenges, managers are confronted with new geopolitical changes. Since 1975, the most important economical countries in the Western Hemisphere, which are, to date, globally significant – the USA, Germany, Japan, Italy, France, the United Kingdom, and Canada – have been meeting informally as part of the G7 group.

In 1998, the group was expanded to include Russia, which was excluded again by the other members in 2014 due to the annexation of Crimea. The European Union has an observer status. In 2023, the G7 represented almost 10% of the world's population and, together with the other EU countries, around 13%. In the reference year 2022, the G7 generated around 30% of global gross domestic product in terms of purchasing power, including the other EU countries 37% of global GDP.

In 2006, Brazil, Russia, India and China formed an alliance under the name "BRIC", which was expanded in 2009 to include South Africa to form "BRICS". In 2024, Egypt, Saudi Arabia, the United Arab Emirates, Ethiopia and Iran joined, and since then the alliance of states has been known as "BRICS plus".

Deep bloc formation in finance, organisation and logistics

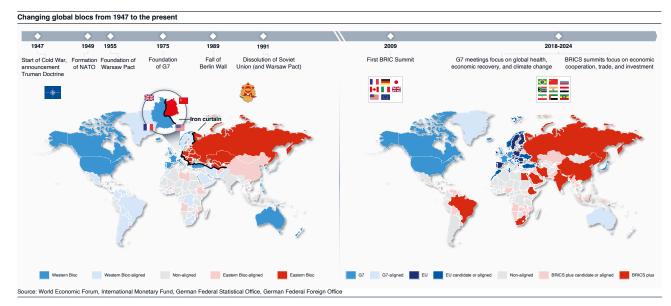


Figure 6: Geopolitical blocs past and present

In 2023, the BRICS represented just over 41% of the world's population; including plus countries that joined, the figure would have been around 46%. In the reference year 2022, the BRICS generated almost 32% of global GDP adjusted for purchasing power, and together with the plus countries around 36%.

Both structures – G7 and BRICS plus – are increasingly developing characteristics of competing blocs (see Figure 15). This can be seen in contrasting investment approaches between the World Bank and the New Development Bank, in cross-border payment systems with SWIFT and CIPS, and in the establishment of alternative logistics routes in the New Silk Road initiative. The clearest indication of this competition, however, is evidenced by the ramp up of sanctions: The G7 imposing measures on the principal nations within BRICS, China and Russia, and those countries responding in kind.

The USA has positioned itself as the exponent of this development (MVP = Most Valuable Player) on the G7 side with 58% of the group's GDP in 2022 and China on the BRICS plus side with 69% of GDP in the same year. The composition of the respective cohorts can be seen in Figure 7.

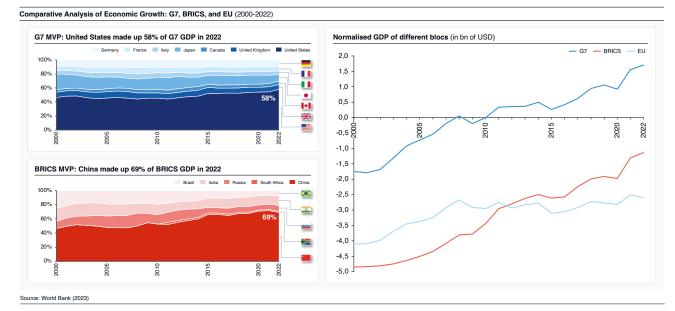


Figure 7: MVPs G7 and BRICS as well as deep dive Europe

Conclusion

Undoubtedly, a new bloc formation is underway. The G7 and associated structures on the one hand, and the BRICS with the plus and accession states on the other, are increasingly established. On the surface, this bloc formation is taking place geographically, as it did during the Cold War. The borders of nation-states and their alliances form the foundation on both sides. There are discrete conflict zones, some of which are historically motivated disputes or relate to intentionally less-regulated areas in maritime regions, such as the South Pacific, and in space.

Beyond these familiar patterns of geographical separation and the corresponding potential for conflict, the genuinely new characteristic of bloc formation lies in the technological dimension that characterises the systemic competition between individualistic (Western) and collectivist (Eastern) social and economic systems. The innovation potentials, efficiency gains and forms of intelligence that can be realised through technological progress are simply reshuffling the cards. Technologies and the advantages in innovation and efficiency that can be achieved with them are becoming a key resource. The protection of these resources becomes more critical, simultaneously shifting their protective measures – right up to a Tech Curtain.

Thus, we are witnessing a revival of earlier mechanisms of technological embargoes, similar to those established in 1949 in Paris with the founding of the Coordinating Committee for East West Trade Policy, known as CoCom. This was set up by the Allies at the onset of the Cold War to control the export of Western technologies to the Eastern Bloc countries.

Tech Curtain as a hallmark of the new bloc formation



However, the unilateral nature of these restrictions is evolving due to the capabilities of some of the BRICs nations. This is evident from recent decisions in the first quarter of 2024 to ban US technologies in critical structures of the government of the People's Republic of China, indicating a shift towards a more reciprocal approach.

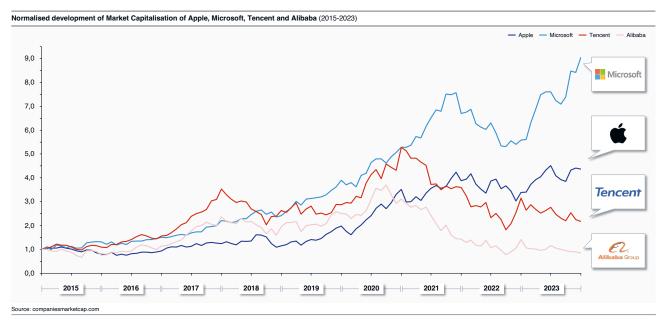


Figure 8: Market capitalisation of Big Techs G7 and BRICS

From a macro perspective, the future remains uncertain as to whether there will be a shift towards increased confrontation, evidenced by discussions around an entirely isolated second internet and escalated cyber warfare, potentially leading to more physical conflicts. On the other hand, the pendulum may swing towards rapprochement, marked by ongoing cooperation. The direction of these developments is yet to be determined.

From a micro perspective on individual companies, an intact upward movement in the market capitalisation of leading technology providers on the G7 side can be observed; conversely, on the BRICS plus side, there is an intact sideways or downward movement of the technology leaders. This fact will be analysed in more detail in the following chapters.

Complication

In this context, company leaders face the challenge of positioning: To retreat into their own bloc or to adopt a dual market strategy addressing the corresponding opportunities and risks associated with global business. Before discussing potential opportunities, it is essential to examine the risks. These arise from the diminishing dominance of the West in the global economy and the uncertainties associated with replacing established systems with new, unclear regulations over a likely prolonged transition period.



Western dominance vs. Eastern exchange

After the collapse of the Eastern Bloc in the 1990s, the West maintained a "natural" dominance for approximately 25 years. Developments over the past ten years indicate that this dominance is no longer undisputed. This is reflected in various competitive dynamics.

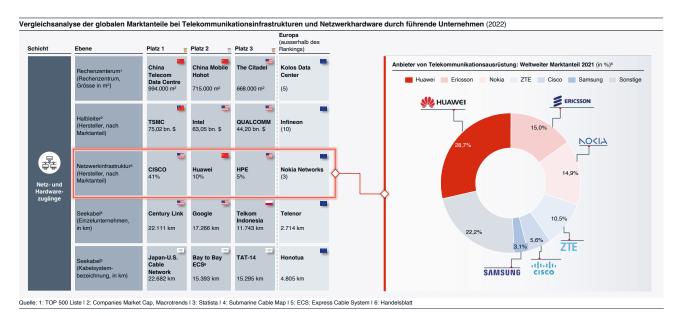


Figure 9: Competitive market for network infrastructure

In individual Central Asian markets (for example in Uzbekistan, Kazakhstan, and Azerbaijan), critical network and mobile communications infrastructures (see Figure 9) are being implemented on the basis of Chinese technologies, while US companies are losing out in a direct competitive comparison. The corresponding shift for mobile radio and network providers in Uzbekistan is visualised in Figure 10.

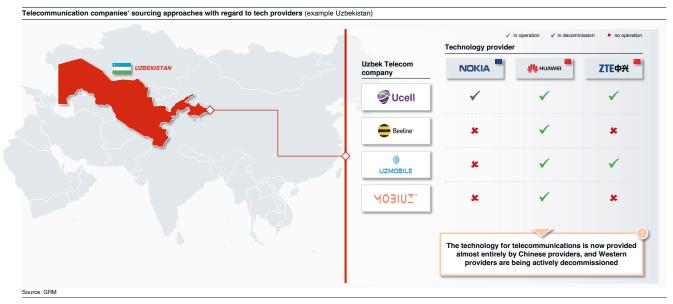


Figure 10: Independent market positioning of Uzbekistan



In contrast to the aforementioned regions, where economic competition prevails, Europe stands out for its emphasis on political regulation. This approach not only prioritises direct economic and performance goals but also involves a consideration of various interests.

For example, great importance is attached to the enforcement of standards in the area of fair working conditions. The restriction of freedoms of oppositional forces or their suppression is also included in regulation and sanctioning, as is the consideration of effects on the environment. Figure 11 illustrates how heterogeneous the factual level looks as a result.

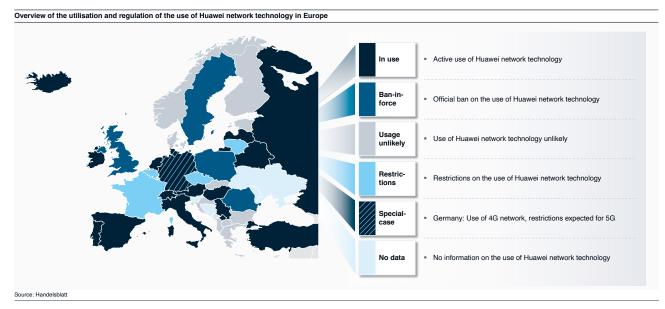


Figure 11: Primacy of politics in Europe

At the same time, it is becoming clear that, compared to previous decades, opportunities for the US economy are being preserved in the EU economic area despite functional and cost disadvantages. This is ensured through increasingly protectionist measures.

The strong momentum of developments is also evident in the automotive sector. The European mass market is being attacked by innovative and cost-effective Chinese models. Infrastructure projects such as motorways, railways and ports on the African continent are increasingly funded by the New Development Bank and executed by Asian providers. This development is not limited to the African continent.

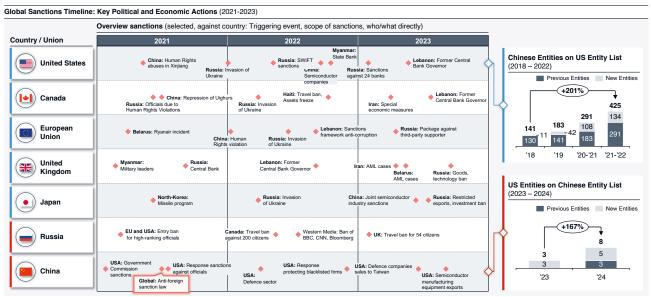
This race is entering the next round. As in any great competition, there is a chance of promotion or relegation. If there is any hope of negating the competition, the consequences are historically familiar from the Cold War:

- Medium and long-term economic stagnation
- Overcompensation through ideology
- Wealth deficits due to efficiency losses

The systemic reaction has typically been compartmentalisation, as can be observed historically in the GDR and its wall regime, as can currently be witnessed in North Korea or as can be seen in the dominance efforts of parts of US politics with escalation in trade



wars (using stricter tariffs and embargoes) and a national focus such as "America first" since 2020. Technology will play an even greater role than in the days of the Iron Curtain due to the increased penetration of almost all dimensions of competition (politics, media, economy, social affairs, military).



Source: Council of Foreign Relations, Global Affairs Canada, European Sanctions Map, UK Sanctions List, Russian Council, Baker and McKenzie, Ministry of Foreign Affairs of the People's Republic of China, xinhuanet

Figure 12: Intensifying sanctions

Since their introduction in 1812 in their US-predecessor institution against the then colonial power UK and the subsequent sharpening in 1940 against the German Reich after the German invasion of Norway as well as the renewed focus on the spreading systemic conflict during the Korea crisis in 1950, the sanction tools in their current form have been sharp weapons in the blockade of assets as well as in the direct and indirect interference in foreign trade and financial transactions.

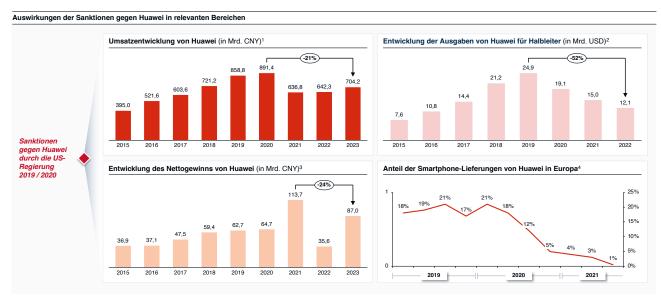
This can be seen across the board in the G7 sanctions canon and, as an example, in the efforts of the Office of Foreign Assets Control (OFAC) as a subordinate agency of the US Treasury Department and the now recognisable effects on technology companies from the BRICS countries, in particular technology leaders such as Huawei and BYD.

US foreign policy primarily aims to develop or safeguard business opportunities for the American economy, making the strategy fundamentally rational despite widespread assumptions to the contrary. Figure 13 below illustrates the severe impact of sanctions on targeted companies, such as the Chinese firm Huawei, beyond the biased and technically inaccurate public statements often associated with these actions. Despite initial setbacks due to sanctions, developments up to 2023 show that Huawei has demonstrated adaptability and resilience, suggesting that the longterm effectiveness of these sanctions may be in question.

Spiral of sanctions and their instruments



The difficulty in assessing the stability of overall conditions is highlighted by the challenges of forecasting demographic trends in China (see Figure 14). The one-child policy in China has resulted in a population decline, and the country has limited experience with high rates of migration and integrating migrants into the elite. In contrast, the USA has a completely different experience.



Quelle: 1: Huawei – Geschäftsbericht 2022 und 2023 I 2: Gartner 2023 I 3: Huawei – Geschäftsbericht 2022 und 2023 I 4: Counterpoint Research 2021

Figure 13: Sanctions works - presented the case of Huawei

As a country of immigration, the USA has extensive experience with regard to migration, which will significantly influence future population growth. Moreover, the United States stands out as a leading destination for international talent in industries that are essential to success.

Regulation and the organisation of access to technologies and the associated innovation in business models will therefore become a decisive competitive factor. In order not to let history end, it will become vital to embrace competition from the market.

Neither subsidy nor sanction regulations form a sustainable business foundation. In terms of development stimulation (subsidies) and protection against unfair market practices (sanctions), these are necessary measures. However, in terms of sustainable business development, these measures will neither have a medium nor a long-term positive impact on the growing systemic conflict between the G7 and the BRICS countries. This requires that management assesses risks and opportunities objectively, steering clear of ideological biases and overstatements.



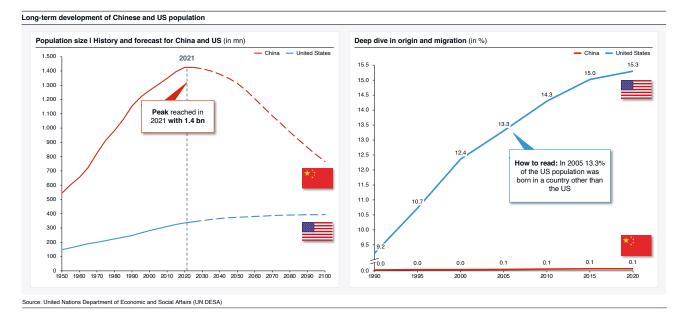


Figure 14: Demographics and migration

Dynamic Rules

After the Second World War, an international order built on a foundation of rules has emerged. Cross-border trade is regulated by alliances, multilateral trade agreements and customs duties. Bodies and procedures such as the OECD, ISO, SWIFT and the World Bank were generally recognised as the ultimate standard-setting bodies and instruments; however, they have always been an expression of Western hegemony. Informal events such as the Munich Security Conference and the World Economic Forum in Davos have become well-established fixtures. At the same time, indications of change have been evident for a while. One early sign of structural transformation was the attempt to set up a Summer-Davos in China, aimed at securing access to these markets from a position of influence.

As a result of the emancipation of individual countries, these rules and programmes, together with their representatives, are being challenged – not within the arenas of international policy and governance debates, but through the actual bypassing of established routes in favour of genuine alternatives. Examples include the Asian Infrastructure Investment Bank and the New Development Bank, the CIPS (Cross-Border Interbank Payment System) developed in China or the SPFS developed by the Russian central bank (see Figure 15).

Along with these new financial bodies focused on financing, there is an emergence of technologies such as cryptocurrencies and Central Bank Digital Currencies (CBDCs). These innovations often fall outside the scope of existing regulatory frameworks, and in some cases, are intentionally developed as alternatives to them.

In the short to medium term, it is unclear how alternative regulations could be structured and which entity might serve as the ultimate overseer of these rules. This applies to both the single and the dual side approach (see the following section below). Due to the dynamics of technological development, patterns of experience from the era of the Iron Curtain are only effective to a limited extent.

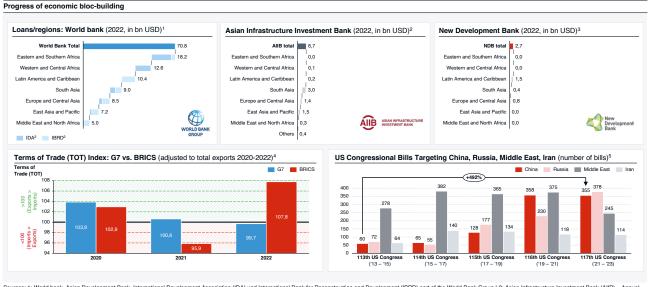
Rule-based Order after the Second World War...

... and their openness to new guarantor powers



This is a challenge for politics and represents a risk for management of companies. As of January 1st, 2024, one of the significant amendments to the Money Laundering Act within the European Union's regulatory context demonstrates the potential for these risks to be increased, both for individuals and institutions. This amendment includes the introduction of an all-crime approach to combating money laundering. Furthermore, a reporting obligation has been implemented on the Financial Intelligence Unit (FIU) portals, which falls under the Federal Ministry of Finance. This is in addition to making the transparency register largely accessible to the public.

... und ihre Öffnung für neue Garantiemächte



Sources: 1: World bank, Asian Development Bank, International Development Association (IDA) und International Bank for Reconstruction and Development (IBRD) part of the World Bank Group I 2: Asian Infrastructure Investment Bank (AIIB) – Annual Report 2022 I 4: OECD data, Statista, TheGlobalEconomy.com I 5: US Congress

Figure 15: Alternative power instruments G7 vs. BRICS

Scenarios

For business leadership, this involves assessing two scenarios and selecting one of the potential approaches.

1. One-sided approach

a. Adjustment of existing regulations in the written regulations

Existing regulations must be adapted to current developments and thus reflect the momentum that has set in to some extent. The twelve sanctions packages enacted by the EU between March 2022 to March 2024, along with the ratified Supply Chain Act and its extensive requirements to for supplier monitoring, serve as examples of this trend.

b. Implementation of new rules

Rules for the protection of critical infrastructures are likewise being implemented to take account of the increased importance of technologies. In the European Union, notable regulations include the NIS 2 Directive, which defines measures for a high level of cyber security, and the DORA Regulation, mandating the operational



resilience of the IT infrastructures within financial institutions and their information and communication service providers. A key challenge for management lies in navigating not only the direct execution of reports but also in addressing potentially conflicting regulations from outside the EU (see Dual Side Approach). Implicit consequences include the blacklisting and whitelisting of individual providers and the review of legacy architectures for their compliance with new regulations.

A particular challenge lies in enforcing new regulations in the widespread legacy structures of the back-end systems of providers in practically all industries. One example of this is the immense expenditure in the financial industry in Europe to introduce money laundering regulations and the spectacularly high fines imposed by US and European authorities in individual cases.

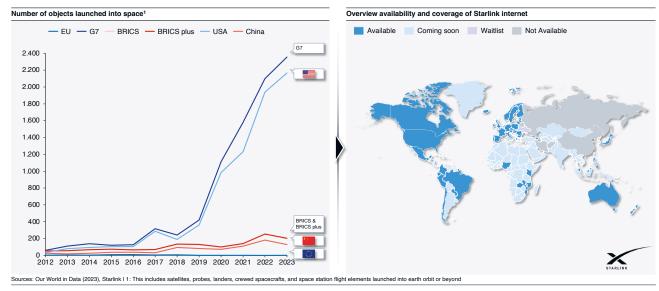


Figure 16: Single side dominance in outer space

DORA and NIS-2 pose similar challenges, both quantitatively and qualitatively, across all industries.

Figure 16 presents an analysis of outer space activities. The chart's left-hand side demonstrates that the G7 bloc's space missions significantly outnumber those of the BRICS, with no evident signs of competitive dynamics. The fact that the civil space services of the US provider SpaceX, with its high earnings and margin expectations, do not address regions such as China with their attractive market potential, demonstrates the high bloc sensitivity of its activities.

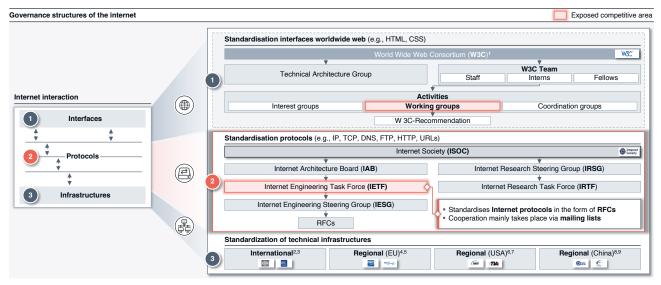
2. Dual-Side Approach: Overarching approaches and repercussions

Apart from focusing on one of the blocs, there are individual collaborations and feedback loops in the interplay between the different regulatory approaches. In the field of artificial intelligence, for example, there is a high degree of dependency between the manufacturing industries in China and the USA, which should not be distilled into a strict juxtaposition; simultaneously, China appears to be further ahead



than the USA with its regulatory approaches. Recently, there have been signals in favour of an initiative for joint regulation of generative AI coordinated between China and the USA. The extent to which this will result in tangible, generally recognised and subsequently enforceable instruments remains to be seen.

Successful collaborations between US and Chinese academic institutions also exist in the field of basic scientific research. For example, a group of researchers from the University of Tianjin and the Georgia Institute of Technology are working together on the possible use of graphene in semiconductors and have recently published results in this regard.



1: World Wide Web Consortium is recognised and financially supported by the Internet Society I 2: International Organization for Standardization I 3: International Electrotechnical Commission I 4: European Committee for Standardization I 5: European Telecommunications Standards Institute I 6: American National Standards Institute I 7: Telecommunications Industry Association I 8: China National Institute I 6: American National Standards Association I 9: China Communications Standards Association I 9: China National Standards Association I 9: China National Standards Institute I 7: Telecommunications Standards Association I 9: China National Standards Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications Standards Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications Institute I 7: Telecommunications Industry Association I 8: China National Institute I 7: China National Institute I 7: Telecommunications I

Figure 17: Governance structures of the Internet

But even if these examples suggest that joint, non-adversarial approaches can be successful, the depth of the conflict and its complexity must be fundamentally recognised. The ongoing patent conflict in Europe, involving Huawei and AVM, as well as other G7 technology companies like Amazon, regarding the use of Huawei-patented WLAN 6 components, serves as a relevant example. On the one hand, this is a simple legal procedure that is being fought out using the usual legal means. On the other hand, however, this process has a background with at least a double bottom: One of the inventors employed by Huawei and registered in one of the patents concerned is also the chairman of the 802.11ax/WLAN 6 working group of the IEEE, e.g., the standardising body. It is likely that these structures (see also Figure 17) will receive greater attention in the future. After all, they form the forum for both negotiating technical issues relating to the tech curtain and fighting out disputes on a background powerpolitical level.



Conclusion

As a result, investors and managers need to pay more attention to five risk classes:

Market risk

Exclusion of markets due to indirect or direct sanctioning of individuals and institutions must be included in the risk canon

Production risk

Increasing difficulty in accessing raw materials or sub-products due to integrity damage in supply chains

Sanction risk

Indirect or direct sanctioning of individuals or institutions due to exposure in geopolitical or market-strategic contexts becomes more likely

Investment risk

Risk of loss of value or even loss of assets in sanctioned or regulated markets

Reputational risk

Due to the increasing media momentum of system competition, multiple publications in the mass media can lead to reputational damage and, as a result, to a loss of sales and earnings

A new characteristic of traditional risk management to date is the technological penetration in identification and mitigation of all risk classes. Example: The spread of instant messaging systems with automatic deletion functions and anonymisation options is replacing previous communication tools in business transactions such as letters, faxes and e-mails. This contradicts the obligation to document business-relevant processes, provokes regulatory controls, stimulates sanctions and leads to market risks. For management, the new challenge is to seize opportunities and build lasting businesses despite more uncertainty, caused by less influence and changing rules in both blocs, without having to leave any markets.

Risks against the backdrop of bloc formation and assess the tech curtain



Solution

The medium to long-term global landscape is seeing the establishment of bloc dynamics, with the G7 plus on one side and the BRICS plus on the opposing side. Innovation stands as the primary competitive advantage for these blocs, and it is anticipated to culminate in industrial dominance. Consequently, the sustained dominance of the G7, as seen historically, appears unlikely to continue. As mentioned, the G7 countries lack the innovative strength and economic power to do so. In the meantime, Asian cultural groups in particular, but not limited to, have come to terms with the experiences of the last 100 years and are developing offers based on tradition and newly acquired skills that will enable them to operate globally on equal and inclusive terms.

Innovative strength as an essential characteristic of this competition

Around 2020, the global landscape began shifting from a period of economic prosperity and collaboration to a new phase marked by rising confrontation, or at the very least, coexistence (see Figure 22).

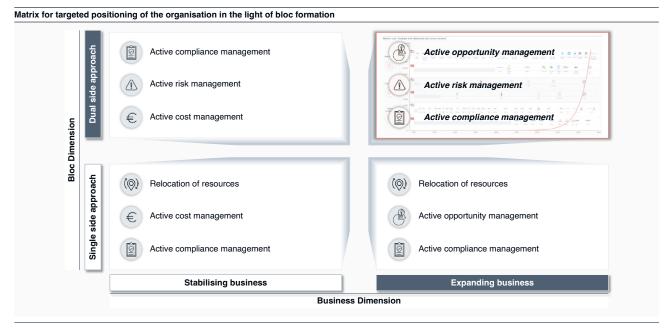


Figure 18: Business alignment compass

The current phase of adaptation must be managed, while simultaneously preparing for the confrontation phase. As with every crisis, where there are significant risks, there are also opportunities to be captured. The globally recognised symbol of interconnected duality, the Yin and Yang, encapsulates this reality as derived from millennia of wisdom within Chinese culture.

For both management and investors, scope for action must be defined to reduce risks and realise business opportunities along two dimensions:

Bloc dimension

the one-sided bloc orientation or the consideration of multipolarity



Innovation dimension

the stabilisation of existing business models or the economic development of innovation

The decision in favour of a bloc means reducing complexity but comes at the expense of business and growth dynamics as well as the sustainable establishment of business models. This applies regardless of the positioning in the innovation dimension. In contrast, the decision to operate in both blocs means greater complexity but is accompanied by greater opportunities to participate in growth and prosperity. However, operating in both blocs requires a strictly innovation-orientated positioning to establish a dominant position in the respective industry.

In recent years, a number of internationally positioned companies have dropped out of the German DAX index, including names such as Siemens Energy, Beiersdorf, Lufthansa, Commerzbank and Thyssen-Krupp. ThyssenKrupp is not the only example that can be used to analyse the prospects of success against a multipolar and innovation-oriented competitor such as ArcelorMittal. The result is clear and should be an indication for investors, managers and strategy departments that beyond artificial intelligence, cloud computing and chip design, previous patterns of success from a G7 viewpoint will only be effective to a limited extent in the future. Even if considerable subsidies are used to stimulate innovation and international competitiveness once again, it can be assumed that without structural changes to the framework conditions, performance will continue to erode.

Therefore, the only remaining option within the bloc competition, especially in terms of risk assessment, is to engage in both blocs and, in particular, to develop a corresponding dual-side approach in the innovation dimension. This applies even more as the majority of the raw materials required for stabilisation and innovation, such as crude oil and natural gas, rare earths, copper, molybdenum, titanium, etc., are allocated in the BRICS plus region and the G7 economies must not isolate themselves from access to strategic raw materials. The bad news is that complexity and risk disposition are increasing – busy time for risk management departments. The good news, on the other hand, is that opportunities are increasing at the same extent – busy time for business development departments.

Contain risk – in the "Fog of Change"

Formal Risk management

Specific risk classes must be taken into account in order to operate within the various blocs and, above all, on their individual markets. A first class concerns access to or, conversely, exclusion from markets, with regard to both the target and third markets. This tangibly includes the direct exclusion of markets in the mutual relationship between the blocs and states, in particular between the USA and China, through bans or tariffs. Evidence of this development is the escalating trade conflict between the USA and the People's Republic of China, which has gained momentum through the introduction and increase of existing import tariffs in the USA.

Formalise risk evaluation along individual clusters



Indirect measures to restrict market access, though intangible, carry significant weight. State-imposed restrictions on certain market entities for national security can turn a company's infrastructure redundant. For instance, Chinese firms such as 3HC Semiconductors and King-Pai Technology have faced recent sanctions, and within the Hong Kong Special Administrative Region, Sinno Electronics and Sigma Technology have encountered similar measures.

This may have a knock-on effect on existing technology architectures, which may become unplanned legacy. Technical standardisation by regional-international or global standardisation agencies such as the Internet Engineering Taskforce IETF and the Institute of Electrical and Electronics Engineers IEEE define minimum standards that can not only lead to delayed adaptation of innovation, but also restrict access to third-party markets as a result

Sanctions as a form of competition

A second class concerns production risks. In direct terms, this refers to the access to raw materials and production resources. Yet, it is the indirect effects that generate negative momentum: Not the absolute exclusion, such as the ban on cooperation with manufacturers of semiconductors (for Huawei with Qualcomm and Intel) or the revocation operating system usage rights (Android), but rather the reduced volume of usable raw materials; not the outright ban, but the delayed or, even worse, the uncertain availability in the context of interest-driven procurement procedures. Given the dependencies in industrial production and value chains, supply chain integrity is a crucial factor for production. This integrity faces a latent threat, and risk management must develop appropriate alternatives, although it is not possible to prepare for every contingency.

Sanction risks primarily relate to a breach of existing rules as they apply in the production and sales markets. This is initially common behaviour and is integrated into the standard procedures and policies of companies or incorporated into compliance departments. That the corresponding rules are subject to sanctions and that there are defined bodies for identification and punishment is part of this regulatory framework.

Markets are usually characterised by regulations that cover security, competition (cartels, fairness), data protection, payment transactions, the environment and sustainability as well as social and corporate governance. In addition, there are always sanctions that take place outside of these regulations and are far more difficult to manage. The temporary disappearance of Jack Ma in mainland China or the house arrest and detention of Meng Whanzou, the daughter of Huawei's founder, in Canada and the USA, as well as China's counteraction involving the arrest of two Canadian citizens, are examples of highly symbolic repressive actions that require some legal sophistication to be classified as classic sanctions rather than arbitrary repression.

A fourth class of risks relates to reputational risks. They are complex and can be categorised in a first approximation according to the reputation of the company, its products and directly or indirectly associated individuals and companies, particularly suppliers. A dual-side approach is exposed to particular reputational risks on the source or home market. The formation of blocs, combined with often intense media-driven dynamics and escalations, results in situations where distancing is usually demanded at short



notice, leading to escalating contact debt. A prominent example of this is former German Chancellor Gerhard Schröder, who was subjected to severe public criticism in his role as a German representative in Russian or Asian companies as a result of multiple reports in mass media.

Both traditional and new media are of particular significance, as they report independently on the one hand and rapidly become the custodians of prevailing opinions on the other. Thus, themselves becoming participants in the debate between the blocs and, at least in part, fuelling the very dynamics that are then criticised.

Media unequal enlightenment

Finally, investment risks relate in particular to activities on target markets in the dual side approach. It is inherently challenging to assess the extent to which operating in the target markets necessitates an investment there, whilst at the same time overriding framework

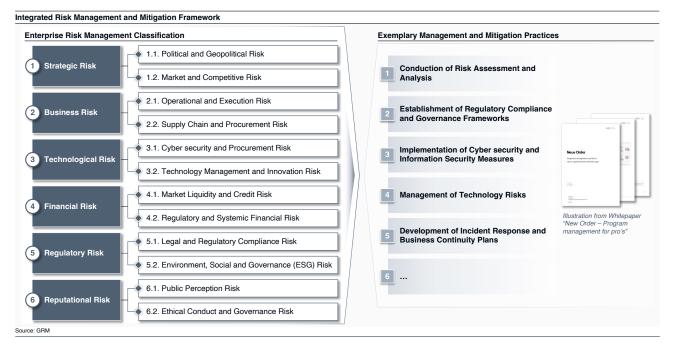


Figure 19: Risk management framework

conditions can be changed in the interplay of major forces, which could result in losses running into billions.

Overall, these five risk classes fall under classic risk management, even if the uncertainties arising from the formation of the bloc certainly necessitate new assessments.

It will be practicable and with a view to, for example, but not only the upcoming regulations on NIS-2 and DORA, to actively mitigate the risks in summarised form along a general risk framework (Figure 19). In particular, data protection, information security, compliance and the ability of coordinated implementation by means of higher-level program management by senior management ought to be focused on (see Figure 23 below).



Informal risk management

Irrespective of the various degrees of maturity of an institution's risk management and its risk culture, it is advisable to establish informal structures that enable orderly communication and transparency towards state actors in the event of conflict, provided that regulations are not established across all blocs in a complete, consistent and comprehensible manner. Given the dynamic geopolitical developments and the dynamics of technological development, this will remain the norm for the foreseeable future and will be a major challenge for the organisation of individual and institutional risk dispositions.

This is ensured through preventive communication with regulators, for example with the European Central Bank (ECB) or with authorities subordinate to the Federal Ministry of Finance, such as the Federal Financial Supervisory Authority (BaFin) and the Financial Intelligence Unit (FIU). A comparable approach is recommended for security authorities such as Europol, the Federal Criminal Police Office or the Central Offices for Sanction Enforcement (ZfS) as well as for financial transaction investigations by the General Customs Directorate (GZD) for the western source market.

In the target market, informal contact should be established with the respective country embassies as the first point of contact and the local regulators thereafter. Informal exchange formats are also regularly offered in the target market countries. The programs offered by the American Chamber of Commerce (AmCham) in the respective target markets should be highlighted here.

Developing opportunities - in the "Wind of Change"

The initial situation harbours great potential for opportunities, provided that risk management is aligned and implemented as described above. Four options have been identified:

Option 1 - Business stabilisation in a single-side approach

Previous success drivers remain effective and can continue to be utilised to the economic advantage of the respective source markets of the G7 plus or BRICS plus. This means that low-cost production and the sale of innovation in the target markets are still possible, considering the sanctions regime. It is recognisable that countries in the vicinity of the MVP China – for example the Philippines in the southern region or Uzbekistan in the northern region – are participating in this development and have launched political initiatives with the support of the European Bank for Reconstruction and Development (EBRD) and the World Bank. The aim is to acquire significant market shares of the outsourcing potential of the G7.

These opportunities should be rigorously pursued, as these markets are displaying stable, high economic growth due to demographic and geopolitical factors.

Option 2 - Business stabilisation in a dual side approach

The high level of innovation in the BRICS plus target markets generates great potential for economic participation.

Prioritise cooperation and value creation against de-risking



But how can you participate if IT, services and logistics are no longer within the decision-making reach of either the target market or the source market?

Therefore, opportunities for cooperation must be explored in many ways: Identify innovation leaders in the source, target and third markets and discuss possibilities for cooperation. The politically motivated discussion of de-risking and the strategic decoupling of value chains is fundamentally opposed to this; however, without a basic load of industrial value creation in the G7 plus economic area, a decoupling discussion will become obsolete in the long term.

An example of this cross-bloc cooperation is the sale of the SMART brand by Mercedes to a Chinese investor, the innovative repositioning of the products, accompanied by the repositioning of the brand and consequently the collaboration in the source and target markets between the Chinese investor in the Asian target markets and Mercedes in the German source markets.

Option 3a - Business expansion as a senior partner in the dual-side approach

Actively shaping the cross-bloc regulatory framework while simultaneously utilising economic opportunities in the development of this "border regime" represents additional opportunities.

This requires trusting cooperation with the administrations of the respective blocs and necessitates a disproportionate amount of time in business development; often enough, a high capital requirement can also be observed. Equally, if successfully implemented, these business models, like infrastructure investments, are positioned independently of current political developments, are subject to low competitive pressure and are accompanied by a stable, high cash flow. Infrastructure investments in logistics, such as in the ports of Duisburg or Hamburg, can be used as examples.

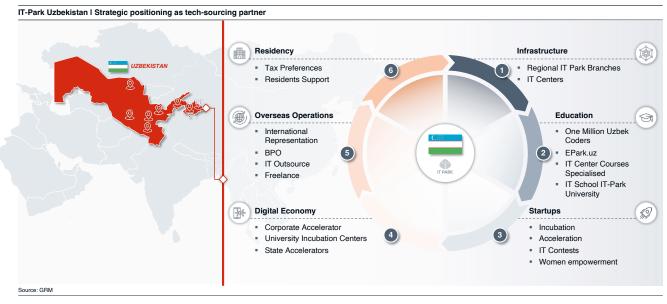


Figure 20: Core elements for a global (real) sourcing offer



Far more interesting are examples such as the IT outsourcing strategy of a Central Asian state that is positioning itself as an independent and neutral country similar to Switzerland in the centre of Europe, in Central Asia between China, Russia, Turkey and the G7. Uzbekistan is well-known for possessing a range of strategic raw materials but is specifically supplementing its economic policy with the development of IT skills. These are now successfully offered worldwide as outsourcing services. Uzbekistan is thus positioning itself as a partner for value-added solutions in the high-tech sector.

Option 3b - Business expansion as a junior partner with a dual-side approach

In the medium term, the rational option may be to cooperate more closely with leading suppliers from the target markets in the source market despite the ongoing sanctions regime. Even if this contradicts the prevailing self-image of suppliers from the G7 countries, this option is set to become relevant as the innovative strength of companies from the BRICS plus countries continues to grow.

The source market in this case would be the BRICS plus markets and the target market the G7 plus economic areas. Supporting the development of new sales markets for innovators from the BRICS plus countries and supporting these market participants in third markets to displace existing market players from the G7 plus is not a preferred option, but one that might be considered necessary. Historically known examples include Deutsche Telekom's cooperation with the Chinese technology provider Huawei as of 2017. Even though this cooperation has come under media pressure and segments of the G7 administrations have expressed reservations from a security perspective, none of the allegations have been substantiated to date. Functional and commercial arguments are not only convincing decision-makers in independent third countries, which confirms Huawei's growing market success. These strong arguments in favour of rational economic action should not be ignored, regardless of contemporary political demands.

Utilise market knowledge for positioning with leader and attacker partners

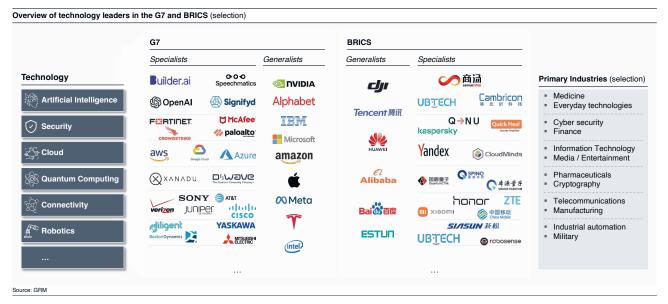


Figure 21: Selection of leader and attacker in tech domains



The pitch has been prepared anew for ten years now. Several players have successfully established themselves, and a second series has been even more successful. Nevertheless, the wave is still to come. A selection of well-known players can be found in the overview in Figure 21. It should be emphasised once again that this new development is characterised by the penetration of technology across all industries. This is also reflected in Figure 3 (right, centre) in the increasing degree of tech valuation in the leading stock market indices.

Summary

Markets are increasingly governed by **political forces**. Consequently, the era of economic cooperation concluded by 2020 at the latest, marking the start of a transitional period that is paving the way to a more enduring phase of confrontation similar to the Cold War. A central characteristic of this new phase is the importance of technology. It is on one hand a driver of efficiency, and on the other hand, a means of confrontation. This confrontation is manifested in a technological divide, a "**Tech Curtain**", between the blocs of the G7 and the BRICS.

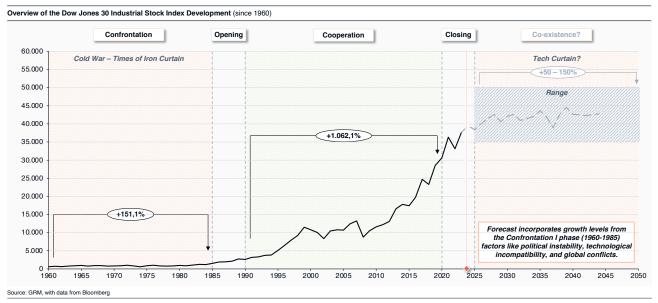


Figure 22: Global setup decisive for prosperity development

The BRICS plus have established themselves as an economic and security alliance in the global market, challenging the previously dominant role of the G7. The new challenges from the BRICS plus are significantly stimulated by innovation and efficiency. The strongest example of this is China's successful development of an independent semiconductor industry, which has achieved value creation from design, software development, implementation, pilot projects, and mass production at an internationally competitive level and now faces the challenge of worldwide scaling (see also Figure 4 above). With the "Made in China" strategy initiated in 2015, China has declared its ambitions for individual sectors of the economy, especially high-tech industries. Anchored in the Chinese economic model, this strategy has been executed with considerable success for nearly a decade, using a planned economic approach.



Within the G7 group, the United States and the United Kingdom quickly adapted to the new form of confrontation following Brexit, and consequently also embraced competition in the economic sphere. The favourable effects of Nixon and Kissinger's policy of opening up to China for the US economy could no longer be well justified in view of the growth effects stimulated there with accompanying trade surpluses from 2015 onwards, according to the insights of the US services. The US administration has taken these findings on board and started to take countermeasures in the medium to long term. As a result, a robust regulation and sanctions scheme was established, particularly in the area of high technologies, and flanked by the economic and political stimulation of its own economy after the Covid pandemic in 2023.

Pioneers of the G7 position themselves

The formation of blocs, a concept well-recognised from the Cold War days of the USA and Russia, suggests that the level of confrontation may continue to escalate. Instead, the deep interdependencies in the economic structures must be assumed. Although these can be reduced, they cannot realistically be resolved. This is well known from the management of complex technology and organisational systems. It is therefore reasonable to conclude that competition and exchange will inevitably lead to a new form of coexistence under intensified conditions. The degree of confrontation or cooperation will also determine the extent to which global economic growth will continue in the future, with the associated opportunities for many people and material economies to realise prosperity.

Figure 22 above illustrates the relationship between global confrontation/cooperation on the one hand and economic growth on the other. We can see that in times of confrontation, economic growth is limited and, in this specific case, has also bankrupted a competitor. In times of cooperation, by contrast, there has been a massive increase in prosperity with a worldwide increase in the quality of education and access to healthcare. The major challenge for economically rational behaviour in the upcoming phase of coexistence under tougher conditions will be compatibility with the respective legal-regulatory, technological and cultural conditions. The compass for this is adjusted risk and compliance management.

Historical opportunity to participate in prosperity

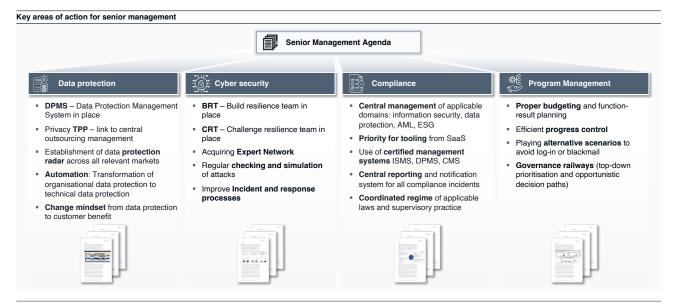


Figure 23: What to do on a Monday morning?



Investors, committees and the management of companies must decide whether to act in a bloc homogeneous (**single-sided approach**) or bloc heterogeneous (**dual-sided approach**) manner. As complete isolation in the sense of a single-sided approach is a less promising strategy in the medium to long term, the resulting grey areas must be actively managed in strict compliance with legal requirements.

Increased compliance and risk management requirements must be managed more vigorously than it has been previously if business is to be maintained and future opportunities are to be realised. The main risk areas are data protection, cyber security, compliance and the institutional ability to increase the level of maturity in these areas in a targeted manner through structured program management.

Monday Strategy Briefing

With increasing complexity, effective and well-structured planning becomes crucial for the Monday Strategy Briefing in management's schedule:

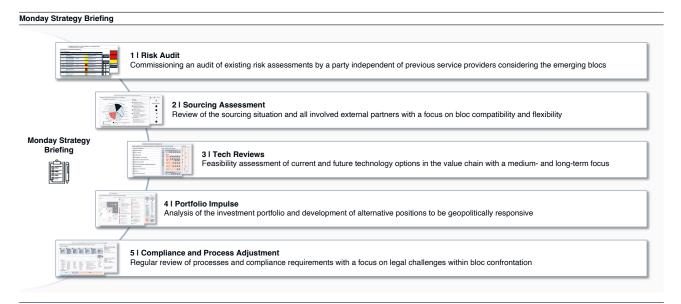


Figure 24: Monday Strategy Briefing

#1 | Risk Audit

Commissioning an audit of existing risk assessments by a party independent of previous service providers considering the emerging blocs

#2 | Sourcing Assessment

Review of the sourcing situation and all involved external partners with a focus on bloc compatibility and flexibility

#3 | Tech Review

Feasibility assessment of current and future technology options in the value chain with a medium- and long-term focus



#4 | Portfolio Impulse

Analysis of the investment portfolio and development of alternative positions to be geopolitically responsive

#5 | Compliance and Process Adjustment

Regular review of processes and compliance requirements with a focus on legal challenges within bloc confrontation

With these five measures, immediate risks are identified and mitigated. Further measures should be part of the strategic development process and integrated into traditional risk processes.

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