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Capital Market Report 1st Quarter 2020

The World After the Coronavirus

Flossbach von Storch

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REVIEW

"On 31 December 2019, the WHO country office in China was informed of a cluster of patients with pneumonia from an unknown cause in Wuhan, a city with 19 million inhabitants in the province of Hubei, China. According to information from the Chinese authorities in Wuhan, some of the patients were traders and vendors at the Huanan Seafood Market in Wuhan. It is the largest seafood market in Wuhan, with more than 600 stands and 1,500 workers. It is reported that wild animals and organs from other animals and reptiles were also being sold at the market. It is currently assumed that SARS-CoV-2 was transmitted to humans from bats."

(Source: German Federal Ministry of Health)

If anyone had said at the beginning of the year that, in the space of a few months, a coronavirus would confront us with the biggest social and economic challenges we have faced since the end of the Second World War, they would surely have been ridiculed. Even by mid-February, when China had already recorded around 80,000 infections and around 3,000 deaths, but had been able to stop the spread with unprecedented quarantine measures, it still looked as though it would be a limited regional epidemic. Perceptions began to change when the first death was reported in Italy on 23 February. A rapid outbreak in the heart of Europe meant that suddenly the spread of the pandemic was no longer an abstract risk, but a very concrete, dangerous reality.

Today, the world's population is having to deal with drastic measures that still seemed inconceivable just a few weeks earlier. Official quarantines and weeks of school, shop and factory closures, culminating in border closures and lockdowns, have paralysed social and economic life in large parts of the world.

The fears that this might also put an end to the sustained economic upswing with record employment and low unemployment have now become a certainty that we find ourselves at the beginning of a recession, the effects of which will likely be far more serious than the economic collapse caused by the financial crisis. The switch flipped from expansion to contraction in a matter of days. This change was accompanied by a sudden collapse in the price of oil, which plunged around 60 per cent to USD 20 per barrel (WTI), not simply due to the foreseeable drop in demand, but also the possibility of an increase in supply by Russia. The political motivation behind this was likely a desire to put an end to the US fracking industry, which operates with significantly higher production costs.

Entire sectors were hit hard: retail, hotel/restaurants, airlines, oil and gas companies, real estate, banking, insurance and industrial goods.

The financial markets quickly followed. Stock markets fell, almost without stopping, 30 to 40 per cent from the highs recorded in February. The losses were particularly large for equities in sectors that were directly affected, such as retail, hotel/restaurants, airlines, and oil and gas companies, but increasingly also for equities in sectors that were indirectly affected, such as real estate, banking, insurance and industrial goods. The price losses for these securities were often greater than 50 per cent, and in some cases even as much as 75 per cent.

The losses for securities in defensive sectors, such as everyday consumer goods, healthcare and technology, on the other hand, were considerably smaller, and many of these securities were able to recover a large part of their losses by the end of March.

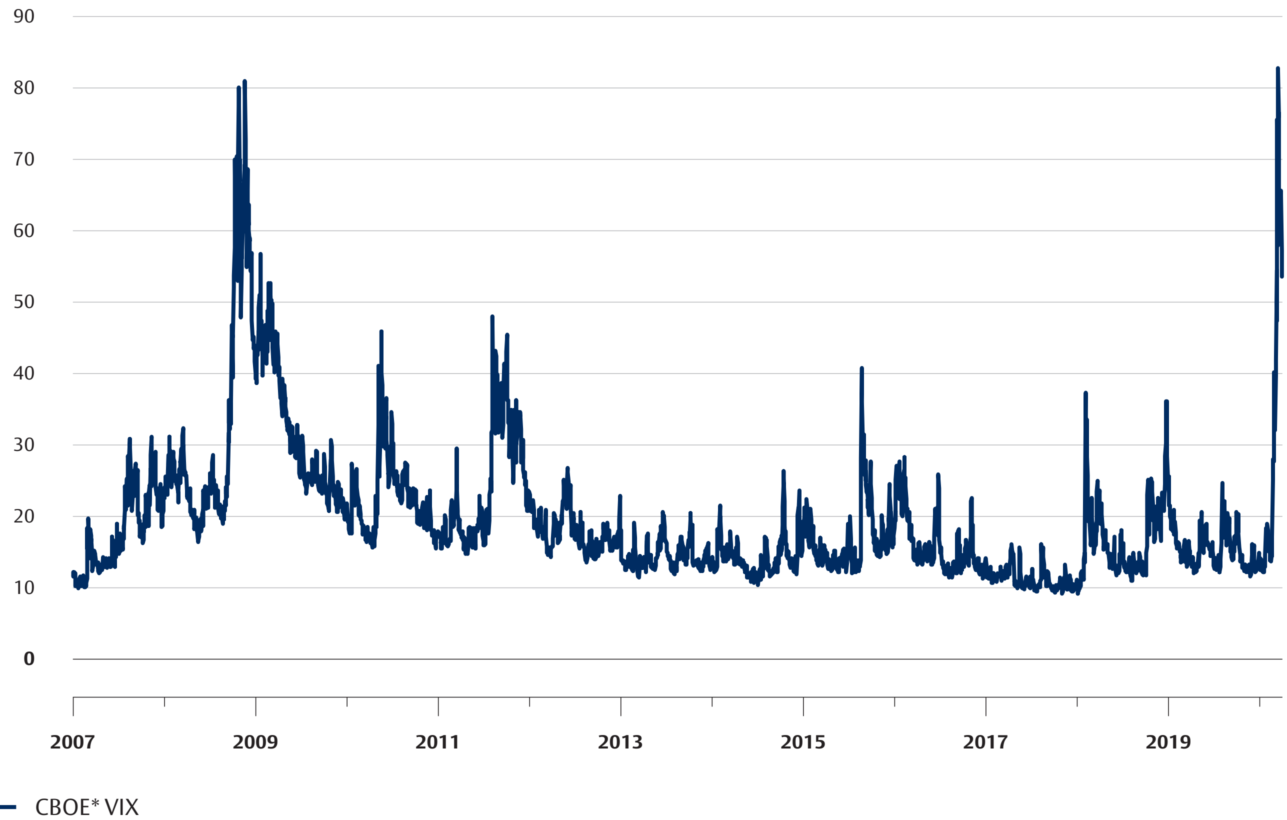
The last time markets recorded such a high level of volatility was during the financial crisis.

The extremely high level of volatility that frayed the nerves of many investors was also noteworthy. The US S&P 500 index recorded its second and third worst trading days in history on 16 March and 12 March, with losses of -12.5 per cent and -9.5 per cent respectively, and its third and fourth all-time best daily results on 24 March and 13 March, with gains of +9.4 per cent and +9.3 per cent respectively. As shown by the US volatility index, the last time markets recorded volatility like this was during the financial crisis (see Figure 1 on the following page).

The price of gold rose to a seven-year high of almost USD 1,700 per ounce at the beginning of the crisis, before recording a temporary correction of 12 per cent. This also occurred during the financial crisis. After a strong increase at the beginning of the crisis, gold holdings were reduced in order to satisfy payment obligations and margin calls. The price then began to rise again. The price of gold, calculated in euros, rose above the EUR 1,500 level for the first time in history on 20 February. An ounce cost EUR 1,430 at the end of the first quarter.

Central banks reacted decisively to signs of the upcoming recession. Almost all of the central banks in developed countries that still had room for manoeuvre reduced their key interest rates and some announced large-scale bond purchases. The US Federal Reserve (Fed), for example, reduced its key interest rate from 1.5–1.75 to 0–0.25 per cent and announced a bond purchase programme without any volume or time limits, as part of which USD 924 billion in bonds has been purchased since mid-March in order to avoid a new financial crisis.

Figure 1 **Stock market volatility as high as the financial crisis** – CBOE* Volatility Index (VIX)



* Chicago Board Options Exchange

Source: Refinitiv, Flossbach von Storch, data as at 1 April 2020

Past performance is not a reliable indicator of future performance.

The yields on US Treasuries fell to a level previously inconceivable to US investors. A two per cent yield was already considered absurdly low for 30-year Treasuries, as it implies a long-term weakness of the US economy. The yield on 30-year Treasuries was just 1.3 per cent at the end of March, and even fell below the one per cent mark at times during the period. Ten-year US Treasuries yielded 0.67 per cent at the end of the quarter, which was also a previously inconceivable level. The yields on German government bonds (Bunds) also fell to new record lows during the period. These were, however, only slightly below the levels recorded in August 2019.

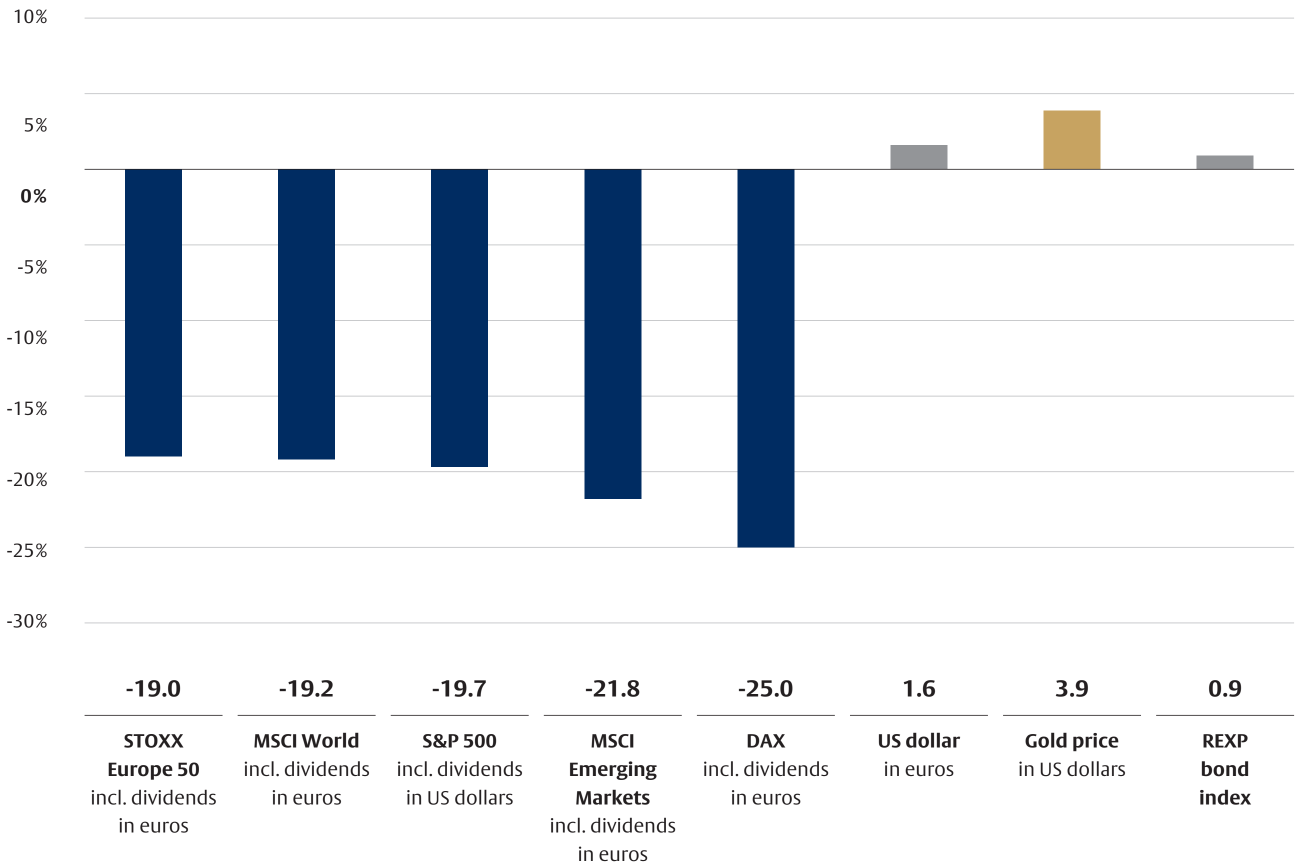
There was a stark contrast between the performance of corporate bonds and safe government bonds during the quarter, especially lower-quality corporate bonds. Similar to the stock market, prices fell sharply, causing yields to soar.

In contrast to government bonds, corporate bonds recorded significant price losses.

When even good-quality (investment grade) bonds had recorded price losses of 20 per cent, the US Federal Reserve announced a massive bond purchase programme that led to a recovery of prices. Many corporations took advantage of this period to increase liquidity by issuing new bonds and to prepare themselves for all possibilities.

We too felt the effects of the storm that was taking place in the markets. Our investment philosophy, however, which is based on diversification and quality, has proved to provide good protection in times of crisis. Our losses were significantly limited compared to the relevant indices. Partial hedging of our equity exposure also helped in this respect, especially for equity-oriented multi-asset mandates, where losses were limited to a level that allowed a return to the profit zone even without new record market highs.

Figure 2 **Capital market performance 1 January to 31 March 2020**



Source: Bloomberg, Flossbach von Storch, data as at 31 March 2020

Past performance is not a reliable indicator of future performance.

OUTLOOK

Health and the economy

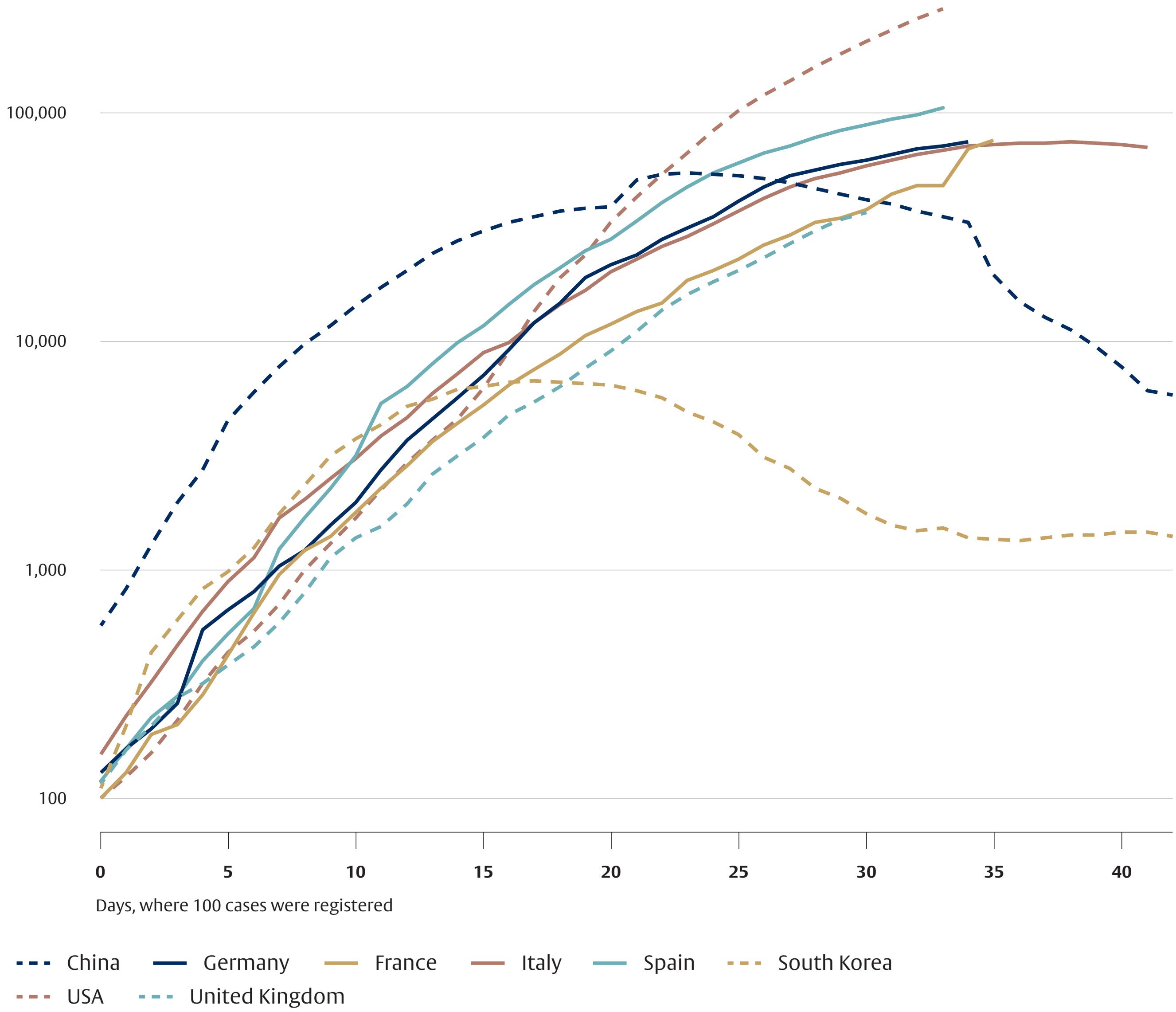
Epidemics follow a bell curve. How steep or wide this curve is depends mainly on the measures taken when the disease begins to spread. Rigorous measures were taken in China. Less than three months after the outbreak, there are practically no new infections.

The results of social distancing and improved hygiene will likely show up as a further flattening of the curves for active Covid-19 cases in the coming weeks.

In other countries, the number of new infections is still high even two months after the outbreak. During the initial phase, it is important to take all necessary measures to limit the spread of the virus in order to avoid the healthcare system collapsing. How far-reaching these measures must be depends mainly on the capacity of the healthcare system. Virologists and healthcare policy makers have taken great pains to point this out and have achieved broad public acceptance of the dramatic restrictions of personal freedom that are needed. The results of social distancing and improved hygiene will likely show up as a further flattening of the curves for active Covid-19 cases in the coming weeks (see Figure 3).

The mortality rate for Covid-19 is relatively low compared to other virus outbreaks in previous decades. If the estimated number of people that have been infected, but not tested, is included, it is likely less than one per cent. The real problem is that five to 15 per cent of people infected require inpatient treatment, which means the capacity of the healthcare system plays a major role in the wide variation in mortality rates between countries. The measured mortality rate is (still) relatively low in Germany due to a high level of testing capacity, but relatively high in Italy and Spain. It currently appears that the United Kingdom and USA are following a course similar to Italy and Spain. There is still hope, however, that new infections could peak in mid-April, followed by a gradual reduction in the number of deaths per day. It is difficult, however, to estimate the course the infection will take in emerging markets such as India, Brazil and Mexico, where the outbreak is just beginning and lower hygiene standards, weaker healthcare systems and close quarters in the metropolitan areas make it difficult to contain.

Figure 3 **Number of active Covid-19 cases** – Logarithmic scale



Source: Worldometer, Flossbach von Storch, data as at 4 April 2020

This makes forecasts of when the world will "defeat" the novel Coronavirus SARS-CoV-2 highly uncertain, particularly given the danger of repeated outbreaks. It is therefore extremely important to make a vaccine available as soon as possible. This would eliminate people's fears of a new wave of infection, thereby creating the confidence needed to look forward to the future with optimism.

There is no trade-off between health and the economy: they depend on each other.

The restrictions would have to be gradually loosened before this, however, as the economic and social damage would otherwise be irreparable. Losing your livelihood is a personal disaster. It is therefore understandable that many people, especially the self-employed and small entrepreneurs, are increasingly more worried about a loss of livelihood than falling ill from the virus. There is no trade-off between health and the economy: they depend on each other. Healthy people are needed for a healthy economy, and a healthy economy is needed for people to be healthy. The economy is not something abstract that can be symbolised in the form of a factory building; it is the sum total of all people and their activities. To prevent the healthcare system collapsing, you therefore have to avoid the risk of economic collapse.

Germany's gross domestic product (GDP) was around EUR 3,440 billion in the previous year, or around EUR 10 billion in value added per day. Losing 50 per cent of this economic output due to prohibited activities and supply-chain interruptions would not only cost EUR five billion per day, or around EUR 150 billion per month, but would also endanger the production of essential goods and services and related logistics (incl. replacement parts, repairs, etc.), thereby putting the supply of goods and services for the entire population at risk.

There would also be health effects, as important operations could not be performed and people could become sick due to the shutdown. Isolation, the loss of livelihood and the fear of these things would lead to depression, suicide and domestic violence. Health economics studies show that life expectancy is reduced by major recessions. Young people are particularly at risk of reduced future prospects and lower life satisfaction due to economic crises.

Politicians have to walk a fine line when weighing up measures to be taken.

Politicians are not in an enviable position. They have to walk a fine line when weighing up measures to be taken. On the one hand, they have to avoid overloading the healthcare system; on the other, they have to limit indirect damage to health and the economy. The economic and social effects also increase exponentially. The first few weeks are easy to manage. Only a few companies are impacted at the beginning, often those that were already having difficulties. The number increases quickly, however, as sales continue to fall while costs remain unchanged, causing even healthy businesses to fail. Then supply chains begin to break, supply shortages and panic buying occur and are no longer limited to toilet paper, pasta and flour.

Governments have to begin loosening restrictions as soon as the virus reproduction rate is close to one and the exponential increase becomes linear. This makes an enormous difference after even a few weeks. For example, if 5,000 people tested positive for the virus in Germany each day, there would be a total of 300,000 new cases by the beginning of June. The healthcare system would have no problem with a linear progression like this. Even if 10 per cent of cases had to stay in hospital for 10 days, these patients would only occupy an average of 5,000 beds. The situation is completely different for exponential growth. If the number of infections increased by five per cent each day (currently also 5,000 cases), there would be close to 1.9 million new infections in the same period of time. If 10 per cent of active cases required inpatient treatment for 10 days, 70,000 hospital beds would already be occupied by the beginning of June, including around 20,000 in intensive care, and the healthcare system would reach its limits.

Use of the “hammer and dance” method would allow the government to start loosening measures soon.

As the rate of new infections decreases, however, it seems likely that the government may soon start to loosen restrictions. Use of the “hammer and dance” method would allow the government to successively loosen measures and then tighten them again if necessary. This scenario, which has also been simulated by the German government, is the only possibility for bringing society back to life before an economic meltdown and the outbreak of social anarchy. Epidemiological considerations would become secondary at this point, since the damage to people and the economy would no longer be justifiable.

Further increases in government assistance programmes should be expected – but there may well be no alternative to these measures given the magnitude of the crisis.

Large-scale assistance programmes that far exceed the measures approved to date have to be initiated at the same time. The German government reacted pragmatically by approving a supplementary budget of EUR 122.5 billion that provides direct grants for small businesses and lines of credit for larger companies, and putting an emphasis on short-time work, an approach that was successful during the financial crisis. Meanwhile, the inherently reasonable level of bank co-liability (10 per cent) is proving to be an obstacle to lending. Many smaller businesses also cannot afford to assume any additional debt, as they have no idea how they are supposed to pay it back. The self-employed are reporting too much bureaucracy when applying for assistance. Adjustments are also needed in this area and further increases in the assistance programmes should therefore be expected. The cost will likely be around EUR 300 to 400 billion in the end – but there is no alternative given the magnitude of the crisis.

Increases will also be needed in other countries. Italy, Spain, France and the United Kingdom are beginning to show signs of a serious economic crisis that will require hundreds of billions of euros in assistance programmes, far more than has been promised to date.

Table 1 **Fiscal policy: "all-in"** – Scope of the Covid-19 rescue packages already approved

Country/union	Scope of the rescue package	Selected measures in detail	Other
Germany	EUR 156 billion or 4.5% of GDP. This is the size of the planned increase in debt to fund the supplementary budget.	– EUR 55 billion to allow the government to continue reacting flexibly to the future course of the pandemic – EUR 50 billion in assistance for small businesses – The provisions for short-time work were also made more flexible. Cost: in the tens of billions range.	In addition to the massive, deficit-inducing rescue package, the German government also increased its guarantees significantly. The guarantee line for foreign guarantees, for example, was recently increased by EUR 357 billion to EUR 822 billion.
European Union (EU-27)	The proposed EU budget for 2020 is relatively small, at around EUR 169 billion or 1.2% of EU GDP. There is therefore little possibility that the EU could provide a major "rescue package" on its own at the moment, as the EU budget is not permitted to generate new debt.	The EUR 100 billion available under the EU's SURE short-time work scheme, on the other hand, can provide significant support, as SURE is backed by large-scale guarantees from the Member States. By following this path of "communitisation", the EU can ultimately mobilise large amounts for substantial loans to suffering Member States under this scheme.	On 23 March, the EU also activated the escape clause that allows Member States to temporarily deviate from the budgetary requirements imposed by the European fiscal framework.
Italy	The rescue package of EUR 25 billion in direct Coronavirus aid, or 1.4% of Italian GDP, is still manageable for this country, which has recorded the most infections in Europe.	– Around EUR 10 billion will be used to protect jobs and income, e.g. in the form of a 12-day "parental benefit" equal to 50% of the last salary – Around three billion will be used for the healthcare system and disaster management, including the procurement of additional ventilators.	The EU's activation of the escape clause allows additional billions to be used to implement further programmes in Italy. Given the tense situation in Italy, it is clear that this option will be used.
United Kingdom	The United Kingdom has already announced massive expenditures of more than GBP 60 billion (around 3.0% of GDP) to overcome the Coronavirus crisis.	– More than GBP 30 billion in tax payments have already been deferred to the end of the year – Small businesses will receive grants of up to GBP 25,000 that can be used, for example, for lease payments – Up to an additional GBP seven billion will flow to more than four million households through the welfare system.	Like Germany, for example, the United Kingdom is also massively increasing its government guarantees. Government guarantees of GBP 330 billion, or 15% of GDP, have already been approved with immediate effect.
USA	The USA is the undisputed leader in terms of the potential size of its rescue package. The rescue package that was approved can increase to a total of more than USD two trillion, or around 9.0% of GDP.	– USD 500 billion can be used to provide liquidity by purchasing corporate debt or municipal bonds, for example – USD 100 billion will go to providers of medical services, in particular hospitals – Hundreds of billions will also likely be distributed to millions of US citizens in the form of helicopter money.	The US presidential elections are expected to take place on 3 November 2020. Trump will do everything in his power to be re-elected – including provide another stimulus package, if necessary.

Source: Flossbach von Storch, data as at 31 March 2020

Almost all of the countries affected will likely adopt “all-in” fiscal policies in the end.

The US government announced two trillion dollars of assistance for businesses, employees and the unemployed. Given the weak social security system in the USA, this will likely be far less than needed. 6.6 million Americans applied for unemployment assistance during the week up to 3 April, 10 times the number that applied in the peak periods of the financial crisis. Since the USA is in an election year and the president has defined the country’s prosperity as a measure of his success, he will not hesitate if further assistance packages are needed to at least limit the crash. The US government will likely adopt an “all-in” fiscal policy in the end.

This will likely take place in almost all countries. As is the case during times of war, given the seriousness of the situation, budget discipline is not a priority. Budget deficits will increase dramatically when exploding expenditures and imploding revenues meet.

Sovereign debt is currently 84 per cent of GDP in the eurozone, around 15 percentage points higher than the level at the beginning of the financial crisis in 2008. The countries that are severely affected, such as Italy and Spain, will see particularly large increases in their budget deficits, especially given the possibility of a significant drop in tourism in the summer. Germany, however, will also be greatly affected by the crisis, as it will be a long time before the automobile industry recovers and now consumption, which was previously strong, is also collapsing.

We expect a slight decrease in economic output in the first quarter, a sharp drop in the second quarter, and continued weakness in the third quarter, before the economy is able to return in the fourth quarter to the level achieved in the fourth quarter of the previous year.

To show the potential impact of the crisis on sovereign debt, we compared a variety of scenarios for different changes in budget deficits and decreases in economic output. Given the high level of forecast uncertainty, we expanded the base scenario somewhat (highlighted in beige). To provide a point of comparison, we marked the values for the deficit and decrease in GDP during the financial crisis in 2008/09. The deficit assumptions for the end of 2020 are based on the increased expenditures and reduced revenues that we are beginning to see for the current year. For economic growth, we assumed a slight decrease in the first quarter of 2020, a sharp drop in the second quarter, and continued weakness in the third quarter (in each case compared to 2019). The economy should be able to reach the level of 2019 again in the fourth quarter, partly due to catch-up effects from the previous quarters. In light of the major effects that the crisis has already had, we feel that a “V”-shaped path that quickly returns to the old growth path is extremely unlikely.

Even a significant economic recovery in future years is scarcely likely to reduce sovereign debt ratios back to their pre-crisis levels. On the contrary, the crisis will continue to have a negative effect on budgets for a long time

Table 2 **Scenarios for the sovereign debt ratio at the end of 2020: Eurozone**
Gross sovereign debt as a percentage of GDP in 2019: 84%

Nominal economic growth in 2020	Budget deficit as a percentage of GDP in 2020							
	-4%	-6%*	-8%	-10%	-12%	-14%	-16%	-18%
0%	88%	90%	92%	94%	96%	98%	100%	102%
-2%	90%	92%	94%	96%	98%	100%	102%	104%
-4%*	91%	93%	95%	97%	99%	101%	103%	105%
-6%	93%	**95%**	**97%**	**99%**	101%	103%	105%	107%
-8%	95%	**97%**	**99%**	**101%**	103%	105%	107%	109%
-10%	97%	**99%**	**101%**	**103%**	105%	107%	109%	111%
-12%	99%	101%	103%	105%	107%	109%	111%	113%

Table 3 **Scenarios for the sovereign debt ratio at the end of 2020: Italy**
Gross sovereign debt as a percentage of GDP in 2019: 133%

Nominal economic growth in 2020	Budget deficit as a percentage of GDP in 2020							
	-4%	-6%*	-8%	-10%	-12%	-14%	-16%	-18%
0%	137%	139%	141%	143%	145%	147%	149%	151%
-2%	140%	142%	144%	146%	148%	150%	152%	154%
-4%*	143%	145%	147%	149%	151%	153%	155%	157%
-6%	146%	148%	150%	152%	154%	156%	158%	160%
-8%	149%	151%	**153%**	**155%**	**157%**	159%	161%	163%
-10%	152%	154%	**156%**	**158%**	**160%**	162%	164%	166%
-12%	155%	157%	**159%**	**161%**	**163%**	165%	167%	169%

* Comparison value in the financial crisis

Sources: Flossbach von Storch, data as at 31 March 2020

Flossbach von Storch scenario analysis. Actual future developments may differ from the assumptions made here.

Table 4 **Scenarios for the sovereign debt ratio at the end of 2020: Germany**
Gross sovereign debt as a percentage of GDP in 2019: 59%

Nominal economic growth in 2020	Budget deficit as a percentage of GDP in 2020							
	-4%*	-6%	-8%	-10%	-12%	-14%	-16%	-18%
0%	63%	65%	67%	69%	71%	73%	75%	77%
-2%	64%	66%	68%	70%	72%	74%	76%	78%
-4%*	65%	67%	69%	71%	73%	75%	77%	79%
-6%	66%	**68%**	**70%**	**72%**	74%	76%	78%	80%
-8%	68%	**70%**	**72%**	**74%**	76%	78%	80%	82%
-10%	69%	**71%**	**73%**	**75%**	77%	79%	81%	83%
-12%	71%	73%	75%	77%	79%	81%	83%	85%

Table 5 **Scenarios for the sovereign debt ratio at the end of 2020: USA**
Gross sovereign debt as a percentage of GDP in 2019: 106%

Nominal economic growth in 2020	Budget deficit as a percentage of GDP in 2020							
	-4%	-6%	-8%	-10%	-12%	-14%*	-16%	-18%
0%	110%	112%	114%	116%	118%	120%	122%	124%
-2%*	112%	114%	116%	118%	120%	122%	124%	126%
-4%	115%	117%	119%	121%	**123%**	**125%**	**127%**	129%
-6%	117%	119%	121%	123%	**125%**	**127%**	**129%**	131%
-8%	119%	121%	123%	125%	**127%**	**129%**	**131%**	133%
-10%	122%	124%	126%	128%	130%	132%	134%	136%
-12%	125%	127%	129%	131%	133%	135%	137%	139%

* Comparison value in the financial crisis

Sources: Flossbach von Storch, data as at 31 March 2020

Flossbach von Storch scenario analysis. Actual future developments may differ from the assumptions made here.

to come, as will the additional increase in expenditures due to demographic change. This is also why the younger generation will be most affected by the current crisis.

The Fed's balance sheet is currently growing even faster than during the financial crisis.

The high level of sovereign debt is forcing central banks to continue their ultra-loose policy practically without end. The European Central Bank (ECB) reacted immediately with broad-based security purchases of more than EUR one trillion by the end of 2020, relieving investors of their fears of possible sovereign default (see Table 6). As the protector of the euro and saviour of last resort for the eurozone countries, the ECB will likely soon also remove the constraints of its capital key, i.e. its self-imposed limits on purchases of bonds from individual Member States. As a result, no eurozone countries should be expected to default, even without Coronavirus bonds, which would, in any case, be more of a sign of solidarity. Thanks to zero and negative interest rates and the backing of the ECB, the debt-bearing capacity of the eurozone countries is secure for the foreseeable future.

The Fed is also now in all-in mode. It reduced its key interest rate to a record low of 0 to 0.25 per cent. The Fed is also purchasing government bonds, mortgage bonds and corporate bonds at an unprecedented rate. The purchases totalled more than USD 500 billion (incl. emergency loans) from 25 March to 1 April alone, causing its balance sheet assets to increase to USD 5.8 trillion. As a result, the Fed's balance sheet is currently growing even faster than during the financial crisis.

Table 6 **Monetary policy: “all-in”** – Expansive central bank orientation at the (temporary) high point

Central bank	Key interest rates	Securities purchases	Other
Bank of Japan	The interest rate applied to the complementary deposit facility has been -0.1% since February 2016.	Some changes were made to its annual security purchases on 16 March 2020: the equivalent of around EUR 100 billion in equity ETFs, around EUR 30 billion in corporate bonds and more than EUR 600 billion in government bonds will be purchased each year. The Bank of Japan already holds around EUR four trillion in Japanese government bonds.	The Bank of Japan will fall back on yield curve control as another element of its monetary policy. It is controlling the yield curve and maintaining a yield of 0% for 10-year Japanese government bonds.
Bank of England	The bank rate was reduced to a record low of 0.1% on 19 March 2020.	Based on a central bank decision of 19 March, the security portfolio of GBP 445 billion will be increased by a further GBP 200 billion, mainly by purchasing government bonds. The portfolio value of GBP 645 billion corresponds to around 30 per cent of the GDP generated by the United Kingdom in 2019.	In addition, a new Term Funding Scheme will be used to inject massive liquidity into the banking system. Banks can use it to obtain funding under favourable conditions for a four-year period at an interest rate equal or close to the bank rate.
European Central Bank	The main refinancing rate has been 0.0% since March 2016. The deposit facility was reduced to -0.5% in September 2019.	The Pandemic Emergency Purchase Programme will be used to provide EUR 750 billion in funding at favourable terms for European countries. Including other programmes, the ECB will purchase securities with a value of more than EUR one trillion in 2020.	Thanks to “TLTRO III”, European banks can obtain refinancing for a three-year period at negative interest rates between -0.25% and -0.75%. A total of EUR three trillion can be borrowed under the programme.
US Federal Reserve	The federal funds target rate was reduced by 150 basis points to 0.00–0.25%.	On 15 March 2020, the Fed announced large-scale security purchases in the amount of USD 700 billion in the coming months. Just eight days later, practically “unlimited” purchases of US Treasuries and mortgage-backed securities (MBS) were approved. In the three weeks up to 1 April, holdings of US Treasuries and MBS had already increased by USD 838 billion and USD 86 billion respectively.	The Fed is using programmes like the Commercial Paper Funding Facility, Primary Credit Dealer Facility and Money Market Mutual Fund Liquidity Facility to counter potential liquidity shortages in the financial markets.

Source: Flossbach von Storch, data as at 31 March 2020

The world after the Coronavirus crisis

2020 will hold a special place in the history books. The unprecedented cancellation of major sporting events, such as the Olympic Games, UEFA European Football Championship and Wimbledon Tennis Championship, during peacetime will leave gaps in sporting history. National emergencies and the death of parliamentary democracy in an EU country like Hungary, the reintroduction of border controls in the Schengen area and far-reaching entry bans in many countries around the world, but especially the restrictions on personal freedom that were previously unthinkable in Western democracies, will be closely associated with 2020 for decades to come.

We might even draw a new dividing line through history in the future. Similar to our treatment of the pre-war and post-war periods for more than 70 years, there might be "pre-Coronavirus or pre-2020" and "post-Coronavirus" periods. There is no question that the effects of the Coronavirus pandemic will continue for a long time to come.

The world will never be the same again.

Consumption/retail

The trend that is seeing a move away from physical shops towards online shopping will receive another boost as many people begin to use this retail channel for the first time or use it more extensively than before. Physical retail outlets will continue to lose ground, emergency loans will often just delay insolvencies. Commercial property rents will decline. People will also increasingly spend their leisure time online. Fewer mass gatherings, more online gaming. Growth of the "sharing economy" will slow. People using car sharing services will wonder whether a virus is accompanying them on their journey.

Cash and contactless payment	The cashless payment trend is already well established in many countries and will likely also accelerate in Germany and other European countries now due to the increase in online consumption and the hygienic benefits of contactless payment (without PIN entry).
Tourism	People will start to reconsider the amount they travel and the way they spend their holidays. Just as people became accustomed to rigorous security checks after the 9/11 attacks, we will become accustomed to having our temperature read and possibly having a swab taken before boarding a cruise ship. Instead of sitting in a plane packed with strangers, we will prefer to be with our families or alone in a car. The risk of being trapped in a foreign country if a virus suddenly appears and the borders are closed will always be in the back of our mind. The flow of Chinese tourists will decrease, as will the number of European visitors to China. Not just out of fear of viruses, but also fear of a draconian surveillance state that simply quarantines people with higher than normal temperatures.
Workplace	Many people may feel that a home office is like heaven on earth, while others see them as a place of social isolation and low productivity. We have learnt that it is possible to work from home, but also that you can go stir crazy and that a home office is no substitute for the communicative atmosphere in an office. Home will nevertheless become increasingly important as a second workplace.
Digitalisation	The Coronavirus crisis has taught us what we absolutely need and what we do not. Many business trips are unnecessary – often video conferences are sufficient. The Internet is even more important than toilet paper. Our digital infrastructure is being upgraded and it will likely be only a few years before Europe has a full-coverage high-speed mobile network. Companies will see their digital infrastructure as a strategic asset and increase investments in this area.
Savings	The crisis has made people aware of their vulnerability. Without an emergency reserve, you can find yourself left high and dry overnight. This will likely first lead to restraint when buying durable goods that are not absolutely necessary (such as a new car). This also applies to companies whose managers have had to learn that you can only make it through a dry spell if the company has enough assets and liquidity and is not struggling under a mountain of debt.

Risk appetite	The existential worries of many small businesses in the current crisis are a warning to anyone thinking of starting their own business. Civil servants do not have to worry about their income even in an economic crisis, and even if they are unable to work during a shutdown. A secure job with the government will become more attractive to many young people.
Hygiene	People will wash their hands more often and will avoid using the serving spoons at a buffet.
Physical contact	Greeting others will become more restrained. Hugs will be reserved for close friends and large gatherings will be avoided.
Data protection/surveillance	Surveillance cameras have become as accepted as street lights in the fight against terrorism. The same could happen for phone tracking and face recognition if used for health protection purposes.
Geopolitics	The Coronavirus crisis will likely intensify the disputes between the two world powers of China and the USA rather than settling them.
Generational conflict	The indirect costs of the pandemic will place an enormous burden of debt on the younger generation. This, along with demographic change, will lead to further increases in demotivating taxes and levies. Why work your heart out when almost nothing is left in the end?
Social policy	Redistribution is increasing. Significantly raising income and wealth taxes is a political reflex when the prosperity of large parts of the population is in danger. Companies that survive the Coronavirus crisis should not expect any consideration. This also applies to property owners, whose property rights could be further restricted.
Economic policy	Countries will try to increase the domestic production of vital and strategic goods to reduce their dependence on cross-border supply chains and individual countries. The global division of labour will be scaled back in some areas. Governments will increase their influence over the economy, especially strategically important sectors and companies. The global struggle for face masks is an unfortunate example.

Monetary policy	It is now official: central banks are doomed to keep interest rates low forever. It is the only way to keep the mountain of sovereign debt manageable. As saviours and investors of last resort, central banks are forced to do everything necessary to avoid the financial system collapsing. This makes moral hazard an inherent part of the financial markets.
Inflation	Inflation is returning. Capacity was reduced by the economic crisis and is insufficient for the flood of liquidity generated by fiscal and monetary policy. The return of production capacity from abroad eliminates the cost benefits of globalisation in some cases, increasing the production costs of the goods concerned. This could increase consumer prices in the medium term.
Priorities	We are now learning what is really important in life. Family, friends, our health, a roof over our heads, a valued job, supplies of essential goods and the protection of our environment. The shutdown has given the climate some breathing space. It also shows, however, that we need a prosperous economy and that climate and environmental goals can only be achieved by innovation and new technologies.

This list is not exhaustive and will not be perfectly accurate. We are relatively certain that increased government influence (and sovereign debt), more regulation and greater risk aversion can be expected. But there are also opportunities. Digitalisation, for example, is finally gaining the importance it deserves and could create a new wave of growth. It increases efficiency, contributes to climate protection, and creates new opportunities for businesses and people. Other sectors, such as diagnostics, medical technology and pharmaceuticals, will also likely benefit.

INVESTMENT STRATEGY

"Victory awaits those who have everything in order; people call this luck. Defeat is certain for those who have neglected to take the necessary precautions in time; this is called bad luck."

Roald Amundsen

Twenty years ago, when a client commissioned us to handle the structuring and management of a large portfolio for the first time, we felt a great responsibility that went far beyond what we had associated with the concept of asset management up to that point. It became clear to us that we were not simply managing a portfolio with the banal goal of beating an index. Our assignment was, in the truest sense of the word, existential in nature.

Studying historically important periods of economic and stock exchange history and the associated bankruptcies, crashes and disruptions helped us expand our knowledge, as did the crash following the technology boom. The realisation that you should always consider the risks first also came from that time.

If you are too afraid to invest, you might suffer even bigger losses in the end.

However, you cannot maintain the value of a portfolio, to say nothing of increasing it, by just looking at the risks, particularly when taxes and inflation are included. If you are too afraid to invest, you put yourself in a dangerous situation that might lead to even bigger losses in the end. We learnt this during periods of high inflation, as millions of people watched the value of their savings melt away. The need to weigh opportunities and risks became a mantra of our investment philosophy as a result, and still guides us in our work today.

This way of thinking is unusual for traditional portfolio managers who measure performance by comparison with a certain stock exchange index. "Riskless" assets like money market funds and bank deposits can be very risky indeed in the long term, and risky assets like equities can be very "safe" in the long run. It depends on how broadly you define the concept of risk. Portfolio theory uses a simple approach. Assets with historical prices that fluctuate over time are considered risky: the more volatile the historical prices, the more risky the asset. Assets with prices that have not fluctuated, on the other hand, are considered safe. The US economist Harry Markowitz received the Nobel Prize in 1990 for this interpretation of risk, causing millions of people to lose a fortune.

The Coronavirus crisis is showing us that assets with a safe past can have a highly uncertain future. This became a bitter reality in previous weeks as many assets suffered losses that are practically inconceivable from a portfolio theory point of

Many portfolio insurance concepts that work in theory have proven to be worthless in practice.

view. Many portfolio insurance concepts that only work in theory continued to sell equities up mid-March, when stock markets were already down more than 30 per cent. According to the German business news magazine WirtschaftsWoche, hundreds of thousands of Riester pension savings plans have also been affected. The pensions are now fully invested in bonds, which means the losses are essentially locked in. So-called robo-advisors, which automatically invest their clients' assets, also acted pro-cyclically. If you assume responsibility for someone else's assets, you cannot hide behind (pseudo-)scientific methods. You have to weigh the opportunities and risks with the due diligence of a prudent businessperson. You have to ask yourself what can go wrong and how you can protect the assets against permanent losses without putting long-term potential earnings at risk.

Portfolios also have an immune system

Intelligent diversification, an attractive ratio of quality to value and adequate liquidity define the immune system of a portfolio.

Just like people, portfolios also have an immune system that protects them against exogenous shocks that arrive out of the blue. What are the characteristics of a good immune system? The portfolio should be intelligently diversified, the individual securities should offer an attractive ratio of quality to value and be liquid enough to provide adequate room for manoeuvre. We define quality as the magnitude and certainty of future cash flows and the solvency of the real assets underlying an investment. Value measures how much of this is not yet included in the price.

The past few weeks have been an extreme quality test for many investments. Even supposedly safe business models were called into question by the Coronavirus shutdown, many dividend payments were cancelled, as were many rent payments. A drop in a company's business can be temporary, like a nasty cold. However, permanent losses that were caused or accelerated by the Coronavirus crisis are more like a serious viral infection with long-term effects on health or the value of an investment.

Therefore, if a portfolio contains shares or bonds from companies in less resistant sectors, such as airlines, banking, tourism, machine construction or steel production, due to their low level of resistance to exogenous shocks they should have correspondingly low weightings. The same naturally applies to property and assets leased to such tenants.

Balance-sheet quality is particularly important during a deep recession. Even companies with secure long-term business models can be in danger of default or forced recapitalisation that significantly reduces the value of existing shares if the company is carrying too much debt. Bond and note holders who only put their faith in credit ratings from recognised rating agencies could still encounter surprises during the Coronavirus crisis similar to what happened in the financial crisis in 2008/2009. Instead of collateralised mortgage obligations, however, this time the problem will be due to collateralised loan obligations, or CLOs. We already discussed the risks lying dormant in these investments in our report for the 3rd quarter of 2019. Similar to the financial crisis, the market first has to be cleansed of these products and zombie companies that were already faltering before the crisis and only able to keep their heads above water thanks to zero-interest loans until the recovery sets in.

Investors will experience an emotional roller coaster in coming months, creating hopes of a rapid end to the crisis and fears of another crash. It is unlikely that the situation will be resolved in a few days or weeks and we can all go back to business as usual. We therefore think it is advisable to maintain the partial hedges that were created in February for a while longer. We will take advantage of further price reductions to increase holdings of shares in companies with good immune systems that allow them to return to their previous growth path after the crisis and end up in an even better position than before.

Financial repression will be faster and more pronounced due to the Coronavirus

At the start of the Twenties, even before the Coronavirus crisis, we were calling it the decade of financial repression. It will now be faster and more pronounced than expected. Central banks will have to permanently finance the explosion of sovereign debt. The Fed and ECB are already going "all-in". Decreasing capacity and increasing procurement prices and production costs will likely lead to a return of inflation soon. A zero-interest rate minus a few per cent inflation produces negative real interest rates that will reduce the value of government bonds and savings accounts more quickly than could have been foreseen at the beginning of the year.

However, financial repression also implies higher taxes and increasing government influence. Real estate will be the asset class most affected by this. Equities could suffer under higher corporate taxes and government regulations. Countries will nevertheless take care to ensure that they remain an attractive location for business in the future. When selecting companies, the focus is on the future viability of business models (the world after the Coronavirus crisis), the soundness of their balance sheets and the quality of management. We are using the crisis to talk with the CEOs of many portfolio companies (currently mainly by phone and video conference) and find out what they have learnt during the crisis.

Although the market turbulence is probably not over yet, equities are the most important asset class for immunising a portfolio against financial repression, followed by gold. After large price losses, even corporate bonds now offer opportunities for above-average returns again, as long as they are not held to maturity.

CONCLUSION

The Coronavirus crisis has not only shown how important a good human immune system is, but also how important it is for a portfolio or individual assets to have a high level of resistance to unexpected exogenous shocks.

The shares and bonds of companies with stable business models and sound balance sheets that make them strong enough to survive even extreme disruptions to economic life without permanent damage may suffer temporary price losses, but will return to their previous level again after the crisis. Though negative surprises can, of course, occur in extreme situations like a shutdown, the effects are mitigated by intelligent diversification. If you put all of your eggs in one basket, on the other hand, as many real-estate investors do, you can no longer say that you simply had bad luck. The same applies to opaque investment products, the risks of which have been cleverly concealed and do not show up until a crisis occurs.

The low level of resistance of many assets that were previously considered safe will become apparent in the aftermath of the Coronavirus crisis. Government bonds, bank deposits and savings accounts will slowly but surely lose their purchasing power in the era of financial repression that lies before us. It would therefore be disastrous if investors took the current crisis as a reason to move out of investments in real assets, such as equities, for good and expose themselves to the inflation virus without protection. A combination of intelligent diversification and high-quality assets is the most promising strategy for the long term. Roald Amundsen would also see things this way today.

Dr Bert Flossbach   Cologne, 6 April 2020

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