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Is Mr. Market Apolitical? Not quite

Authors: Maria Milina, Robert Bush, Jason Chen, Johannes Mueller

"There are known knowns; these are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns – the ones we don't know we don't know"[1]

Donald Rumsfeld, Former United States Secretary of Defense, 2002

IN A NUTSHELL

– Geopolitical risks and uncertainties posed by elections, polarization, and conflicts within and between countries will continue to play on investors' minds this year and likely beyond.
– In this paper, we look on impact of geopolitical events on markets through a lens of "known unknowns" and "unknown unknowns" – a risk framework devised in a famous speech by a former United States Secretary of Defense Donald Rumsfeld in 2002.[1]
– We find that elections in the U.S.—a typical example of "known unknowns"—do not appear to have had a significant impact on the U.S. large caps in the time period considered. Market volatility appears to spike in autumn for most years, whether there are presidential elections or not.
– In the case of "unknown unknowns", such as wars or terrorist attacks, sharp market selloffs and increased risk premium have been observed, but they typically have dissipated within weeks. Investors can either ignore this temporary turmoil and remain invested in the portfolios optimal for their investment objectives or take a more active approach and act on the greater risk premium in order to capture potential higher returns (which unsurprisingly come at higher risk).
– We believe that focusing on the longer-term, structural changes following certain geopolitical events might help investors to better position their portfolios for future uncertainties without introducing downside in calmer times. We suggest the use of the Geostrategic Risk Rating (GRR) as one practical tool for factoring geopolitical uncertainties into a portfolio.

1 / Introduction

Geopolitical risk encompasses a broad range of different phenomena, including political instability, tensions and military conflicts between countries, terrorist threats or other events that can have regional or global impacts. It can also be used in the context of internal political affairs, which can influence domestic and global financial markets.[2]

The war in Ukraine and the Israel-Hamas conflict continue to worry governments, central banks and investors because of their knock-on effects on the economy, both globally and for individual countries. Elections have also been a key political theme this year, as over half of the world's population has voted or will vote in general or local elections in 2024. Some elec-

[1] Department of State Washington File: Transcript: Defense Department Briefing (February 12, 2002)
[2] Economics Observatory (March 2024). "How are geopolitical risks affecting the world economy?"

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tions may have limited local or regional effects, others – have not or will not produce surprising outcomes. A number of elections could have significant foreign policy implications. For example, the recent Taiwanese elections could reshape China-U.S. relations, while Iran's political landscape may influence the Israel-Hamas conflict and commodity prices. In the European elections, while the center right held ground, the strong showing for far right parties across the continent now have the potential to impact policymaking in Brussels. However, the most significant attention this year has been focused on the U.S. elections and a potential return of former President Donald Trump.

The global economy can be affected by geopolitical events both directly and indirectly through financial, trade and commodity price channels due to changes in tax policy, regulatory environments, industrial policy and other legislative actions of governments. In terms of financial markets, this happens both through direct capital controls or financial sanctions, and indirectly through increased uncertainty, higher risk premia or asset price surges. Prolonged policy uncertainty, as during the long years of negations after the 2016 Brexit referendum, constitute another important transmission channel, changing both fundamentals and risk perceptions.

In this paper, we look at geopolitical risk and its impact on capital markets through the lens of "known unknowns" and "unknown unknows". This framework of risk originates from a speech by a former United States Secretary of Defense Donald Rumsfeld (see the quote above).

By "known unknown" we understand a geopolitical or political event in which we do not know the outcome, but we do have suitable methods to understand the range of plausible outcomes, the drivers behind them and the impact they would likely have on the economy and markets in both the medium and the longer-term. Crucially, investors are also assumed to agree among themselves how they would interpret new information as soon as it becomes available. Elections tend to be a great example of "known unknowns". In this article, we focus on the impact of the U.S. elections on the U.S. stock market.

By "unknown unknown" we understand a geopolitical event that few investors could have predicted happening, given the knowledge and methodologies commonly used and accepted among them. Importantly, this may include the type of events (such as the 2016 Brexit referendum or the election of Donald Trump that year), which at least some political analysts saw as far more plausible than common market wisdom did. Russia's full scale invasion of Ukraine in 2022 is another such example. "Surprising" and market moving military conflicts, wars and terrorist attacks are clear examples of "unknown unknowns" almost by definition – they catch a sufficient number of market participants by surprise, whether or not they may have been predictable, based on the available evidence. In this article, we look at the historical response of the U.S. stock market after largest global geopolitical shocks.

Note that this perspective maps well on classic notions of market efficiency, at least in the sense of adaptive markets. To quote MIT economist Andrew Lo: "Risk is measurable and quantifiable; uncertainty is the unknown unknowns. One of the great achievements of modern financial economics has been to push back against uncertainty, to convert unknown unknowns into known and familiar quantities, to tame uncertainty and harness risk for our own purposes."[3]

We also explore one potential way how to practically implement the geopolitical uncertainty into a stock portfolio. We discuss the Geostrategic Risk Rating (GRR) that was developed by J.H. Whitney, a venture-capital and geopolitical risk consulting firm. We show that the GRR allows to capture the information that is not necessarily included in more common risk metrics, such as market beta or volatility. We use the example of Russian invasion of Ukraine to demonstrate the potential of GRR to mitigate portfolio exposure to certain geopolitical shocks.

[3] Lo, Andrew (2017) Adaptive Markets: Financial Evolution at the Speed of Thought, Princeton University Press, p. 415

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2 / “Known Unknowns”

While we believe that the elections and the administration policies can have long-term, structural implications for the economy, capital markets and industrial sectors, here, we want to answer a simple question on whether U.S. presidential elections really matter for the U.S. stock markets returns.

Many previously published analyses show that when considering S&P 500 returns as a proxy, the stock market has tended to march higher no matter the election outcome.[4,5] It appears that the average 1, 3, 5, 10 and 20 year returns post elections do not differ depending on a mixed or sweep Presidency, Senate and House, Table 1 and 2. What is happening in the economy tends to be much more important for markets than which party is in charge. This perhaps in part can be explained by the fact that most U.S. elections in the modern era tended to be fought on the middle ground, for example on economic policy issues.[6]

Table 1: How S&P 500 Reacted When the President and Congress Represent the Same Political Party
(D) Democrat, (R) Republican, 1937–Present

Sweeps					Performance Following Start Date				
Start	End	President	Senate	House	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr
1937	1939	D - Franklin D. Roosevelt	D	D	-34.73	-5.27	-7.47	4.37	11.12
1939	1941	D - Franklin D. Roosevelt	D	D	-0.38	-7.37	3.71	7.18	13.38
1941	1943	D - Franklin D. Roosevelt	D	D	-11.59	10.11	16.81	13.25	14.66
1943	1945	D - Franklin D. Roosevelt	D	D	25.63	26.97	14.74	16.95	15.16
1945	1947	D - Harry S. Truman	D	D	36.31	9.82	10.60	17.00	14.88
1949	1951	D - Harry S. Truman	D	D	18.60	24.58	17.74	19.94	14.86
1951	1953	D - Harry S. Truman	D	D	23.97	13.21	23.76	16.08	12.06
1953	1955	R - Dwight D. Eisenhower	R	R	-0.94	25.63	13.51	13.40	11.64
1961	1963	D - John F. Kennedy	D	D	26.88	12.48	13.25	8.18	8.31
1963	1965	D - Lyndon B. Johnson	D	D	22.76	17.14	12.37	9.91	8.30
1965	1967	D - Lyndon B. Johnson	D	D	12.46	7.83	4.98	1.25	7.79
1967	1969	D - Lyndon B. Johnson	D	D	23.89	8.01	8.38	6.62	10.15
1977	1979	D - Jimmy Carter	D	D	-7.19	5.41	8.09	13.80	14.54
1979	1981	D - Jimmy Carter	D	D	18.45	14.27	17.30	16.27	17.73
1993	1995	D - Bill Clinton	D	D	10.08	15.35	20.27	9.35	8.22
2003	2005	R - George W. Bush	R	R	28.68	14.39	12.83	7.10	9.80
2005	2007	R - George W. Bush	R	R	4.91	8.63	0.42	7.68	
2009	2011	D - Barack Obama	D	D	26.46	14.12	17.94	13.12	
2017	2019	R - Donald Trump	R	R	21.83	15.28	18.48		
2021	2023	D - Joe Biden	D	D	28.71	10.01			
Average					**13.74**	**12.03**	**11.98**	**11.19**	**12.04**

Source: Hartford Funds (January 2024). “How Political Parties in Power Influence Markets”. Data starts on January 1 of the year following each November midterm election and ends on December 31 of the year indicated. Past performance is not a guarantee of future results.

[4] Hartford Funds (January 2024). “How Political Parties in Power Influence Markets”
[5] T. Rowe Price Insights (September 2020). “U.S. Presidential Elections and Stock Markets Which One Leads the Other?”
[6] For a classic description of this logic (as, not coincidentally) derived from U.S. experience, see Downs, Anthony (1957). "An Economic Theory of Political Action in a Democracy". Journal of Political Economy. Vol 65 (2), pp 135–150

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Table 2: How S&P 500 Reacted When the President and Congress Represent Different Political Parties
(D) Democrat, (R) Republican, 1947–Present

Mixed					Performance Following Start Date				
Start	End	President	Senate	House	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr
1947	1949	D - Harry S. Truman	R	R	5.63	9.70	16.56	18.29	13.65
1955	1957	R - Dwight D. Eisenhower	D	D	31.41	7.70	14.90	12.79	6.86
1957	1959	R - Dwight D. Eisenhower	D	D	-10.72	12.69	12.77	9.19	7.90
1959	1961	R - Dwight D. Eisenhower	D	D	11.95	12.58	9.86	10.00	6.52
1969	1971	R - Richard Nixon	D	D	-8.40	2.82	1.99	3.16	9.52
1971	1973	R - Richard Nixon	D	D	14.22	5.06	3.22	8.45	11.14
1973	1975	R - Gerald Ford	D	D	-14.67	-4.82	-0.18	6.71	11.32
1975	1977	R - Gerald Ford	D	D	37.14	16.37	14.74	14.75	14.56
1981	1983	R - Ronald Reagan	R	D	-4.88	12.28	14.63	13.90	15.66
1983	1985	R - Ronald Reagan	R	D	22.46	19.63	16.40	16.13	12.69
1985	1987	R - Ronald Reagan	R	D	31.64	18.00	20.33	14.36	13.21
1987	1989	R - Ronald Reagan	D	D	5.18	17.32	15.35	15.28	11.80
1989	1991	R - George H.W. Bush	D	D	31.69	18.53	14.55	19.21	8.43
1991	1993	R - George H.W. Bush	D	D	30.47	15.62	16.59	17.45	9.14
1995	1997	D - Bill Clinton	R	R	37.58	31.15	28.56	12.07	9.85
1997	1999	D - Bill Clinton	R	R	33.36	27.58	10.70	8.42	7.68
1999	2001	D - Bill Clinton	R	R	21.04	-1.03	-0.57	-1.38	5.62
2001	2003	R - George W. Bush	D	R	-11.89	-4.05	0.54	1.41	7.47
2007	2009	R - George W. Bush	D	D	5.49	-5.63	-0.25	6.94	
2011	2013	D - Barack Obama	D	R	2.11	16.18	12.57	13.88	
2013	2015	D - Barack Obama	D	R	32.39	15.14	15.79	12.56	
2015	2017	D - Barack Obama	R	R	1.38	11.41	11.70		
2019	2021	R - Donald Trump	R	D	31.49	26.06			
2023	2025	D - Joe Biden	D	R	26.29				
Average					**15.10**	**12.19**	**11.40**	**11.12**	**10.17**

Source: Hartford Funds (January 2024). "How Political Parties in Power Influence Markets". Data starts on January 1 of the year following each November midterm election and ends on December 31 of the year indicated. Past performance is not a guarantee of future results.

In addition to equity market returns, we looked at the impact of elections on market volatility, using VIX as an indicator. We assume that it's the end October VIX value that would be most relevant for November elections. At simple glance at Figure 1, a ramp up in implied volatility in the fall in presidential election years can be seen, and we can't entirely rule out that being because of the elections (eight in total in the period from 1990 to 2024).

That said, two of the election years (2008 and 2020) coincided with the global financial crisis (GFC) and Covid-19 pandemic. If we eliminate these two years from the analysis, quite a different picture emerges, Figure 2. But even if we keep the entire (in any case quite limited) data set, we see that there is no statistical difference (t-test at 5% or 10% significance) between average monthly volatility for any month in election versus non-election years (years without either presidential or mid-term elections for Congress). There is also no statistical difference between Sep and Oct, and Oct and Nov volatility (F-test) in either election or non-election years.

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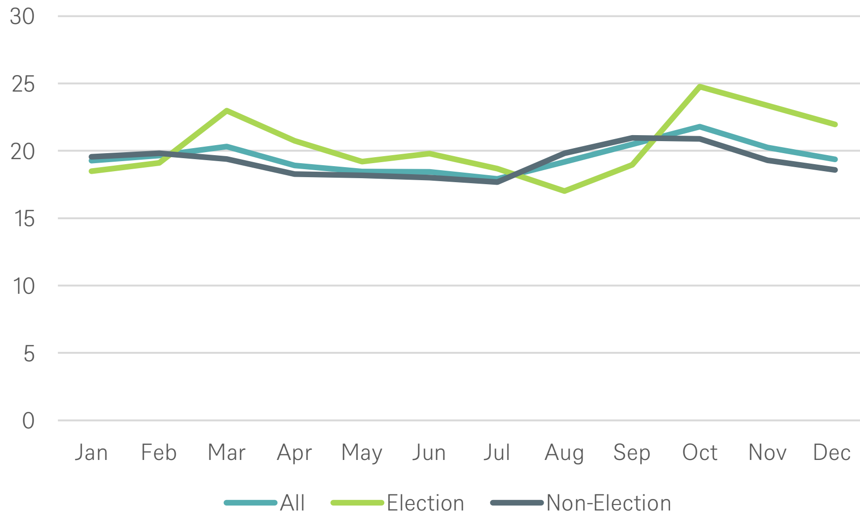
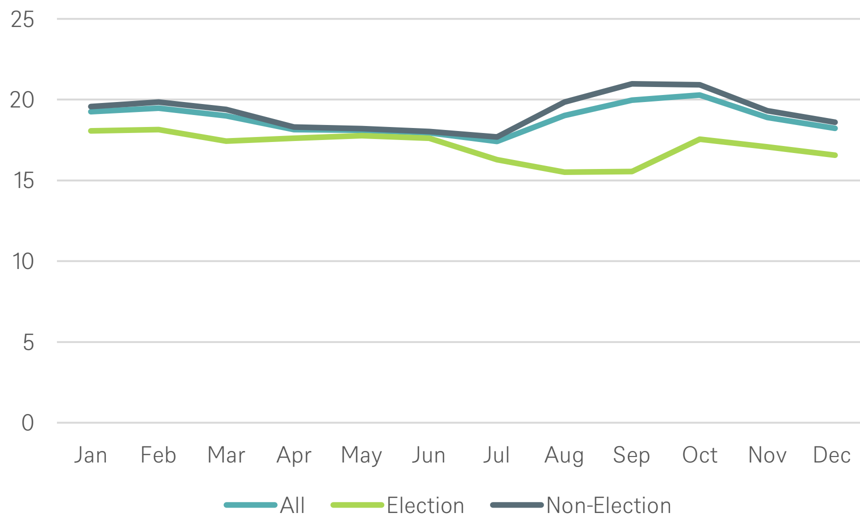
In our analysis of this date, we concluded that, contrary to common belief, U.S. large caps have not displayed any unusual volatility around U.S. presidential elections. An important disclaimer is that we are drawing our conclusions from the very limited data set available (in the last 34 years a mere eight presidential elections).

Figure 1: Average monthly VIX levels from 1990 to 2024



Source: Bloomberg, DWS calculations, as of 03/28/24. Past performance is not a guarantee of future results.

Figure 2: Average monthly VIX levels from 1990 to 2024 (ex 2008 and 2020)



Source: Bloomberg, DWS calculations, as of 03/28/24. Past performance is not a guarantee of future results.

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3 / "Unknown Unknowns"

In the previous section we were dealing with events, such as elections, where the occurrence – but not, of course, the result - is signaled well ahead of time to everyone, and we focused on a country – the United States – where the ground rules, such when and whether an election is held, who can run and the like, are well established under the rule of law and a mature, independent judiciary. Moreover, we noted that U.S. elections have tended to be fought on the center ground in terms of economic policies. It is worth noting that in less mature democracies generally, and in poorer countries in particular, this has historically often not been the case – meaning in such elections, a lot more tends to be at stake for domestic businesses and foreign investors alike.[7]

In this section, we focus on another category of geopolitical uncertainties – so called "unknown unknowns". The crucial distinction is that the occurrence of these events (often tragic) by definition is not known to most investors before they actually happen, and therefore they are not reflected in the prices of financial assets. That makes positioning ahead of time difficult. Practically, this means that it is only the aftermath–and not the anticipation–that now matters for most investors.

As can be seen in Figure 3, geopolitical events have normally triggered short, sharp market shocks, with the impact fading away within weeks, again using U.S. large caps as measured by the S&P 500. Afterwards, the macroeconomic forces have taken over. Based on this pattern, a prudent approach would be to ignore, or even to buy into geopolitical uncertainty, at least in markets quite far removed from the actual conflict. Some investors may question if right now we are on the cusp of a new phase, where escalating tensions alter this dynamic. At the same time other investors may continue to operate under an assumption that geopolitical risks persistently evoke more fear than actual impact, as has typically been the case since World War II for Western stock markets.

Figure 3: Reaction of S&P 500 index to major geopolitical events.
(Shaded events occurred around recession)

Event	Date	Days to recover	Draw-down %	Changes % 1w	2w	4w	8w	6m	12m
WW-II Germany annexes Czechoslovakia	15-Mar-39	180	-19.70	-6.2	-8.8	-19.7	-11.9	-2.2	-5.6
WW-II Germany attacks France	9-May-40	1118	-38.30	-14.3	-24.2	-24.9	-18.4	-7.8	-22.0
WW-II Pearl Harbor	7-Dec-41	306	-19.80	-6.3	-8.9	-4.6	-5.0	-11.6	0.2
North Korea invades South Korea	24-Jun-50	82	-12.90	-7.6	-7.7	-8.1	-2.4	4.3	12.6
Suez Crisis	29-Oct-56	none	none	1.5	0.2	-2.4	0.2	-1.2	-12.3
Berlin Wall built	13-Aug-61	4	-0.7	0.3	-0.6	-0.3	-0.1	3.5	-15.4
Cuban missile crisis	14-Oct-62	none	none	-2.4	-4.2	3.2	10.7	19.9	26.9
Assassination of President Kennedy	22-Nov-63	4	-2.8	0.9	3.7	3.9	6.9	12.1	20.5
Authorization of military operations in Vietnam	7-Aug-64	none	none	1.3	0.7	1.5	3.4	7.6	5.8
Six Day Israel Arab war	5-Jun-67	1	-1.5	20.0	3.1	0.9	5.2	5.2	9.9
Israel Arab War/Oil embargo	16-Oct-73	3	-0.1	-0.8	1.0	-5.1	-11.0	-16.3	-35.1
Shah of Iran exiled	16-Jan-79	9	-1.2	-0.8	0.9	-2.5	-1.0	1.6	10.4
Iranian hostage crisis	4-Nov-79	8	-2.6	-1.0	1.2	3.6	5.2	3.7	24.3
Soviet invasion of Afghanistan	24-Dec-79	none	none	0.2	-1.0	3.2	7.3	8.1	24.3
Invasion of Grenada	25-Oct-83	17	-2.5	-1.5	-2.5	0.0	-2.2	-4.8	0.7
Bombing of Libya	15-Apr-86	none	none	3.1	2.4	0.1	1.1	-0.8	17.7
First Gulf War	2-Aug-90	188	-16.9	-4.8	-4.3	-8.8	-14.2	-5.5	8.9
Kosovo bombing	24-Mar-99	none	none	3.1	4.4	3.5	5.6	5.8	18.9

[7] Edwards, Sebastian (2012) "Left Behind: Latin America and the False Promise of Populism", University of Chicago Press

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9/11 Attacks	11-Sep-01	30	-11.60	-4.9	-8.2	-2.8	0.9	6.6	-16.7
Iraq war	20-Mar-03	none	none	-0.5	0.8	0.7	7.5	16.1	28.4
Arab spring (Egypt)	25-Jan-11	none	none	-0.4	2.2	4.0	0.6	4.2	1.8
Intervention in Libya	19-Mar-11	none	none	2.7	4.2	3.2	4.6	-7.1	9.8
Revolution of Dignity (Ukraine) and Crimea annexation by Russia	1-Mar-14	3	-0.7	1.0	-1.0	-0.1	0.2	7.6	13.2
Intervention in Syria	22-Sep-14	39	-7.4	-1.4	-2.1	-6.2	1.5	4.4	-2.6
Brexit vote	23-Jun-16	7	-4.1	-0.7	0.7	4.2	4.6	8.5	16.7
Airstrike on Syrian airbase	7-Apr-17	17	-1.2	-1.2	-0.1	1.4	3.1	7.5	10.5
Russian invasion of Ukraine 2022	24-Feb-22	none	none	3.8	1.2	5.5	5.5	-2.1	-5.0
Israel-Hamas war	7-Oct-23	none	none	0.4	-2.0	1.2	6.6	-	-
Median		**17**		**-0.7**	**0.2**	**0.1**	**1.1**	**4.2**	**9.8**
Average		**119**		**-1.3**	**-1.7**	**-1.7**	**0.3**	**2.5**	**5.4**

Source: Deutsche Bank Research (2024). Past performance is not a guarantee of future results.

It is also important to note that since the beginning of 21st century, with the notable exception of 9/11, most adverse geopolitical events in this sample did not directly hit the United States, nor seriously threaten the international, rules-based framework that emerged after 1945. By contrast, it is well known that countries experiencing adverse geopolitical events, wars and revolutions in particular, on their soil suffer very large drops in economic activity and significant impact on their capital markets. To take one obvious 20th century example, the Bolshevik revolution of October 1917 and the subsequent civil war had devastating and permanent consequences for anyone owning private property in the Russian Empire. According to recent research, the St. Petersburg Stock Exchange (SPSE) outperformed massively between February 1865 to July 1914, delivering annual returns of around 10% versus just 4% at the New York Stock Exchange (NYSE).[8] However, no methodology existed in, say, 1900 that could have reliably predicted Tsarist Russia was going to witness the complete destruction of private wealth, while a seemingly unstable United States (having only 35 years earlier experienced a bloody civil war) was going to prove a wealth preserving haven of stability for the next 124 years. Like many emerging markets today, both the NYSE and the SPSE may have seemed similarly risky propositions in 1900, if for slightly different reasons.[8]

Recent research by European Central Bank (ECB) looked at the geopolitical risk premium in equity markets after the Russian invasion of Ukraine in February 2022, depending on the proximity to the war zone, Figure 4.[9] Physical distance between Kyiv and the capitals of other countries was used as a proxy to reflect a country’s exposure to the war itself. The exposure may be due to trade and economic linkages, higher refugee flows or potential military spillovers, putting a strain on economic activity and hence on the associated stock market performance. In peace time, the distance to Kyiv does not influence the cross-country variation in the performance of global equity markets. But in the immediate aftermath of the invasion, distance became an important determinant of their performance. It explained almost 20% in the cross-country variation in equity markets in a sample of 80 countries. In other words, equity markets priced in a negative geopolitical risk premium. Stock prices in countries in the vicinity of the war, in particular stock prices in Europe, were hit much harder than those in parts of the world that are more distant from the invasion. Notably, after 40 days, this negative geopolitical risk premium disappeared in most European equity markets.

[8] For a recent, fascinating empirical analysis on how investors priced political instability risks in Tsarist Russia's comparatively quite advanced financial markets during the decades leading up to 1914 see: Hartwell, C. (2023), “Political violence and financial markets in Tsarist Russia” Financial History Review , Volume 30 , Issue 2 , August 2023 , pp. 231 – 275.
[9] The ECB Blog (September 2022). “How do markets respond to war and geopolitics?”

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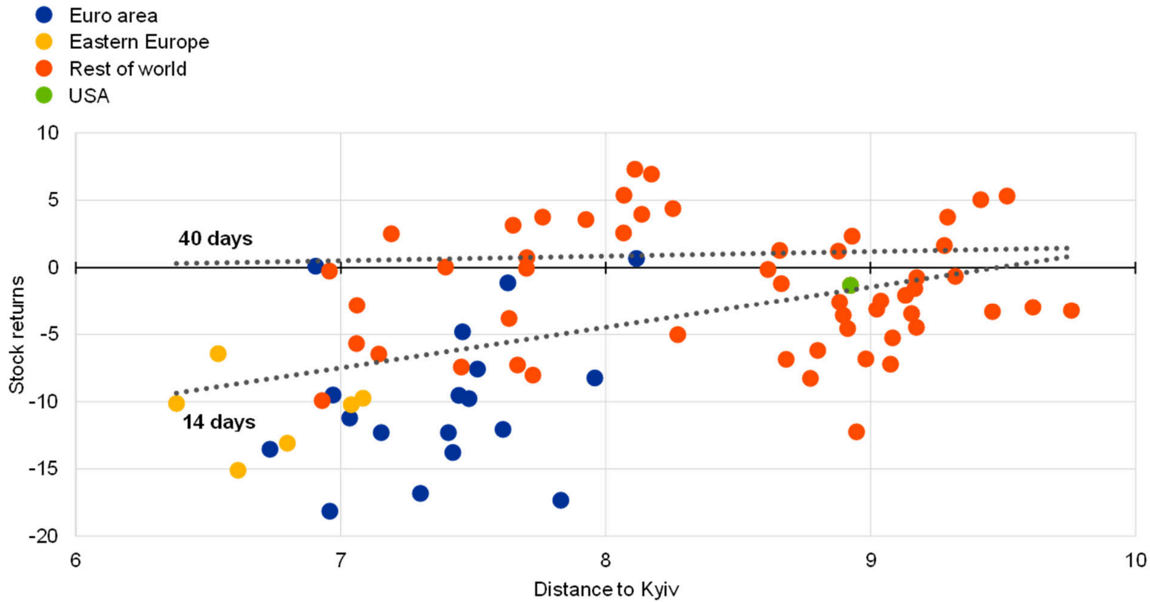
Figure 4: Stock market returns vs distance to Kyiv after the Russian invasion of Ukraine in February 2022[10]



Source: The ECB Blog (September 2022). "How do markets respond to war and geopolitics?".[10] The dots show the percentage change in the respective countries' stock indices within the 14- day period starting on 25 February versus the distance (in log) between the capitals of each country and Kyiv. Past performance is not a guarantee of future results.

We also looked into an impact of temporarily taking a more risk-on or risk-off approach after a geopolitical event occurred. We compared a model 60/40 portfolio (60% is allocated to the S&P 500 and 40% to the Bloomberg US Aggregate Bond Index) and compared its returns with two other portfolios, abbreviated as "toggling risk-on" and "toggling risk-off" portfolios. In the case of the toggling risk-on portfolio, an investor switched to an 80/20 portfolio immediately after each geopolitical event shown in Figure 3 and held it for 1 month, then switched back to the 60/40 portfolio. The toggling risk-off portfolio is similar, except that an investor temporarily switched to a 40/60 portfolio.

Empirical analysis in Figure 5 shows that the total return of these portfolios from 9/11/2001 up to 3/22/24 was very similar. Toggling risk-on portfolio only marginally outperformed the 60/40 and toggling risk-off portfolio ($100 invested on 9/10/2021 would become $278 for the toggling risk-on portfolio, compared to $272 and $267 for the 60/40 and toggling risk-off portfolios, respectively). Average annualized volatility over this period was 12.0% for the toggling risk-on portfolio, compared to 11.8% for the 60/40 portfolio and 11.7% for the toggling risk-off portfolio.

With this in mind, investors can decide themselves whether they should simply ignore geopolitics and remain invested in the portfolios optimal for their investment objectives or whether they want to take more active approach and act on the greater risk premium in order to capture potential higher returns (which unsurprisingly come at higher risk). We recognize that this analysis is based on a relatively small sample size of geopolitical events which are unlikely to repeat in exactly the same way in the future.

[10] The ECB Blog (September 2022). "How do markets respond to war and geopolitics?"

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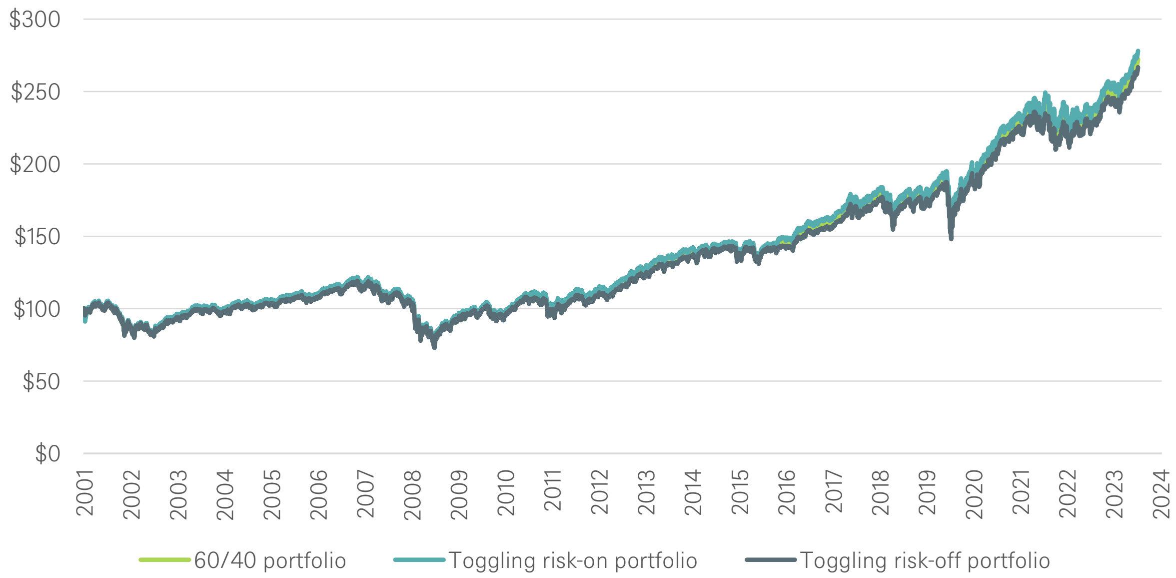
Figure 5: Performance of model portfolios from 10/9/2001 to 3/22/2024



Source: Bloomberg, DWS calculations, as of 3/22/2024.

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4 / Geopolitical Uncertainty versus Risk in Practice

In the previous section, we showed that the impact of geopolitical shocks on developed country stock markets was usually short-lived. This suggests some possible gains for investors to shift their attention to the long-term, structural changes that may occur after certain geopolitical events or they can try to turn uncertainties others do not perceive yet into manageable risks. A great example of this type of change is the trend towards reshoring manufacturing that has started after the supply chain disruptions caused by the Covid-19 pandemic followed by the Russian invasion of Ukraine. While the exact configuration of the supply chains and trade flows will likely become more apparent within the next 5-10 years, the trend towards certain degree of deglobalization is clear now (though whether it will persist or eventually reverse remains to be seen).

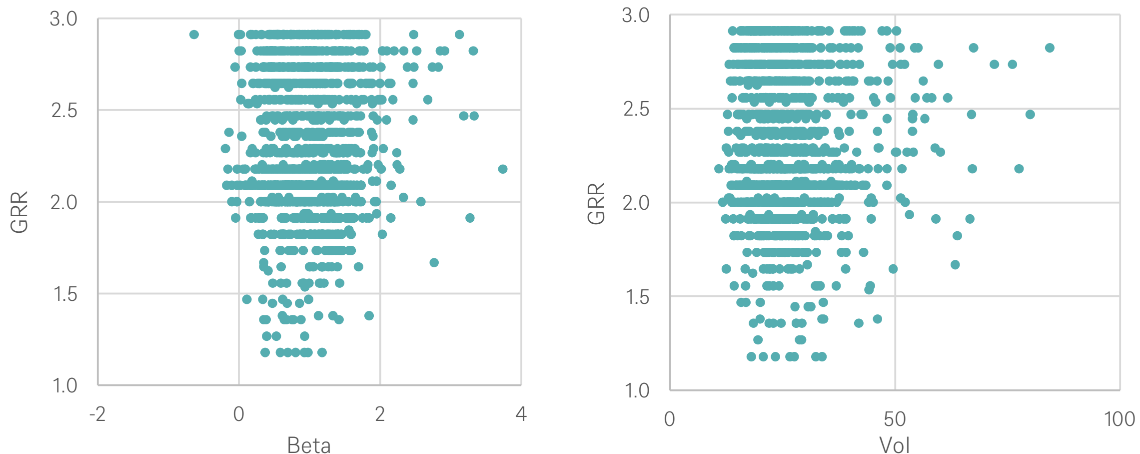
Businesses around the world are taking steps to boost their geopolitical expertise to help with increasingly delicate judgments about target markets and supply chains. At the same time, investors are trying to assess geopolitical risks for the companies in their portfolios.

One example of the analytical tools developed for geopolitical risk mitigation is the Geostrategic Risk Rating (GRR) that was introduced by J.H. Whitney, a venture-capital and geopolitical risk consulting firm.[11] We should note here that we use the GRR in one of our ETF products.

In short, the Geostrategic Risk Rating model quantifies the relative level of risk that individual companies may face as a result of geopolitical activities, including economic sanctions, national industrial policy actions, national regulatory actions and other actions that can be taken by the U.S. and/or so called "adversarial nations", or nations with heightened geopolitical risks – China, Russia, Iran, and North Korea. Companies receive a relative score between 1.0 and 3.0, with a score of 1.0 indicating the highest level of relative risk and a score of 3.0 indicating the lowest level of relative risk. The metrics include statistics such as the amount of revenue earned in these countries, the geographic location of a firm's customers, assets, and suppliers, and the composition of its board (amongst other things). The core concept is that if Western relations with any of these countries were to sour (further!) then the GRR helps to avoid or at least mitigate this risk.

We looked at the relationship between GRR scores and the beta and volatilities of the developed markets large & mid cap stock universe (around 1500 stocks). The correlations between GRR scores and both beta and volatility are effectively zero, Figure 7. This suggests that the GRR typically allows to capture the information that is not necessarily included in more common risk metrics, such as market beta or volatility.

Figure 7: Geopolitical Risk Rating (GRR) vs stock beta and volatility



Source: J. H. Whitney, DWS calculations, as of 3/22/2024.

[11] J.H. Whitney Data Services

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We believe that analytical tools like the GRR are increasingly important and timely. Factoring the geopolitical risks into companies' assessment doesn't appear to come at an implicit/explicit cost as long as the resulting portfolio remains well-diversified. Instead, it can potentially play a role of a built-in geopolitical put option.

Case study: Application of the GRR during Russian invasion of Ukraine

An interesting addendum to the previous observation of short-lived market selloffs after "unknown unknowns" in Section 3 is to explore whether there is any evidence that a smaller portfolio, comprised specifically with geopolitical risks in mind, could fare any better.

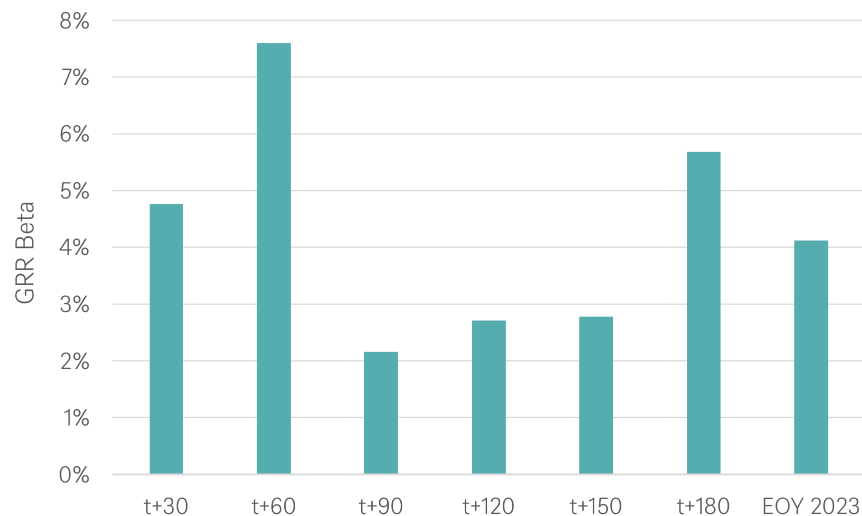
For this purpose, we present an event study conducted by Solactive, a German-based global index provider. Here, we need to note that at DWS, we utilize Solactive indexes in our ETF products. That said we show the following analysis only as an example of how geopolitical risks could be incorporated into a portfolio, and what the impact might have been.

Solactive studied the relationship between the GRR scores of stocks (the Developed Markets Large & Mid Cap segment represented by the Solactive GBS Developed Markets Large & Mid Cap USD Index) and their performance in a number of time periods after the Russian invasion of Ukraine on February 24, 2022 (this is a back test using the GRR scores available in January 2022, the scores are updated quarterly). Stock returns were analyzed after 30, 60, 90, 120, 150 and 180 days following the event (t+number of days). In addition, the returns at the end of 2023 are presented (EOY 2023). The returns are referenced to February 24, 2022.

As shown in Figure 8, in all the time periods examined, a unit improvement in the GRR score was associated with outperformance between approximately 2 and 7.5%. For example, for EOY 2023, a +1 higher GRR scores resulted in a +4% higher return compared to securities of the same sector with and a -1 lower GRR score (on average, other things equal). The results are derived from regressing the GRR scores on individual securities returns, controlling for individual sector effects; the interpretation is not analogous to the market beta. The model controlled for sectors in order to show that the GRR scoring works across all sectors and is not specific to the sectors negatively or positively affected by the geopolitical event.

We understand that this one recent event cannot be considered to be representative of any future developments, but we cite it as at least some evidence from recent history that an event involving Russia, and a portfolio of stocks ranked, in part, on their exposure to that country, seem to have provided the expected result.

Figure 8: GRR Beta after the Russian invasion of Ukraine on February 24, 2024



Source: J. H. Whitney, DWS, as of 3/22/2024.

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5 / Conclusions and Outlook

Geopolitical turmoil has been the catalyst of turbulence for investors for a long time. It is also regularly cited as the greatest tail risk for markets in many investor surveys. However, the business cycle mattered more for investors in the majority of the geopolitical events in post-war history, while the immediate shocks have tended to be short-lived, at least as far as large caps in developed markets, such as the U.S. market, are concerned.

Similarly to geopolitical shocks that understandably receive a lot of media attention, elections is another topic that grabs the headlines, especially in major countries such as the United States. In this paper, we show that election outcomes in the U.S. appeared not to have a significant impact on U.S. large caps in terms of returns and market volatility, contrary to common belief. Instead, it could be more beneficial to focus on long-term, structural economic and sectoral implications of the administration policies.

Heightened market volatility due to geopolitical shocks may induce traders to seek returns by adopting more active short-term strategies. It historically raised the reward for those that can get it right. The problem is that the cost of misjudging events is also high: Research shows market volatility typically widens the range of returns for active funds.[12] For an average investor, market timing does not result in better returns. Nonetheless, this information can help investors to frame their own approach to geopolitical risk and whether they want to stay put or try to capitalize on the temporary market volatility.

We believe that it may be beneficial to shift attention from short-lived market shocks to the structural changes that may occur after certain geopolitical events, as for example the trend towards deglobalization accelerated by the Covid-19 pandemic and the Russian invasion of Ukraine. We present the use of the Geostrategic Risk Rating (GRR) as one practical example of how to implement geopolitical risk considerations into a portfolio as a put option for future uncertainties.

Contributor
Peter Doralt
CIO Office

[12] Vanguard (July 2023). "Is Volatility an advantage for active managers"

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Glossary

Beta: A measure of volatility that captures a security's systematic risk according to the capital asset pricing model.

Bloomberg US Aggregate Bond Index: A broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

Capital controls: Are residency - based measures such as transaction taxes, other limits, or outright prohibitions that a nation's government can use to regulate flows from capital markets into and out of the country's capital account.

Central bank: Manages a state's currency, money supply and interest rates.

Drawdown: The average, maximum loss in a given year.

Financial sanctions: Restrictions put in place by governments to achieve a specific foreign policy or national security objective.

F-test: A statistical test that is used in hypothesis testing to check whether the variances of two populations or two samples are equal or not.

GFC: The Global Financial Crisis (GFC) refers to the period of market turmoil that started in 2007 and worsened sharply in 2008 with the collapse of Lehman Brothers.

Large cap: Large cap firms generally have a market capitalization of more than 10 billion dollars.

Put option: Is a financial security which gives the owner the right, but not the obligation, to sell an underlying asset at a specified price at a specified time (European option) or during a specified time period (American option).

Reshoring: The relocation of production back to the country where the company is headquartered or where their product is sold from an outsourced overseas manufacturer.

Risk-on/ risk-off: Describes an investment behavior that is only based on a changed risk perception.

Risk premium: The expected return on an investment minus the return that would be earned on a risk-free investment.

Selloff: A rapid selling of securities such as stocks, bonds, ETFs, commodities or currencies.

S&P 500: An index that includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S.

Total return: A performance measure of an investment. It measures the earned income of an investment over a specific time period.

T-test: A is a statistical test used to test whether the difference between the response of two groups is statistically significant or not.

VIX: The CBOE Volatility Index (VIX) is a trademarked ticker symbol for the Chicago Board Options Exchange Market Volatility Index. It is a popular measure of the volatility of the S&P 500 as implied in the short term option prices on the index.

Volatility: The degree of variation of a trading-price series over time. It can be used as a measure of an asset's risk.

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All investments involve risks, including potential loss of principal.

Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

Diversification neither assures a profit nor guarantees against loss.

DWS does not intend to promote a particular outcome to the U.S. election due to take place in November 2024. Readers should, of course, vote in the election as they personally see fit.

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