

A note from the Research desk...

Wars/conflicts (i.e. - Russia/Ukraine) coupled with rising geopolitical tensions due to autocratic regimes (such as in China, Turkey and many other countries) introduce a change in paradigm which has slowed down the globalization of financial markets and the boom of foreign direct investments across the world.

While back in 2011 some investors claimed that "(...) investors don't like uncertainty, markets like autoritarian governments (...) and democracies are chaotic (...)", points of view are reconsidered today.

"Because we live in a largely free society, we tend to forget how limited is the span of time and the part of the globe for which there has ever been anything like political freedom: the typical state of mankind is tyranny, servitude, and misery. The nineteenth century and early twentieth century in the Western world stand out as striking exceptions to the general trend of historical development."

Back in 1982, Milton Friedman noticed what many of us have come to realize today. Over the last decades we as investors in financial markets have forgotten what the risk of tyranny is and what it could imply for our investments in companies in such countries or in companies that have a significant exposure to such countries.

At TOBAM, we are convinced that time has come to address this risk and to provide investors with the opportunity to form an educated opinion about it and to determine ways to tackle this risk in their portfolios.

This note is the first of a series of notes in which we address the topic of "Authoritarian Regimes and Investment Risk" from different angles. First, we review the evidence in academic research that tries to analyze the relationship between democracies and growth, or stock market impact of authoritarian regimes. In a second note we will address the question of authoritarian risk by providing our own empirical evidence on the topic. Finally, we will address in a third note how we think that investors could tackle this risk in their portfolio.

I wish you an insightful reading experience and I am happy to receive your feedback and questions.

Dr. Tatjana Xenia Puhan Deputy Chief Investment Officer

¹ Friedman, Milton, 1982, *Capitalism and Freedom*, The University of Chicago Press, p.16.



I. Democracy and Economic Growth

Key take-aways of this section

- In early academic work democracy and economic growth did not always exhibit a clear positive association.
- Modelling this relationship is complex as it is prone to measurement error, unobserved characteristics and non-linearities.
- More recent work overcomes these problems and does not only establish a positive association but even a positive causality between democracy and economic growth.

In the academic literature there are two distinct views on the topic of Democracy and Economic Growth. The first is that **there is a slightly negative correlation between the two** and a second that **the relationship is positive**. Before turning to the academic papers and putting them into a context that can help to understand the different results, let us see what our new AI toy ChatGPT tells us about the topic.

Question: What is the relationship between democracy and economic growth?

ChatGPT: There is a general belief that democracy is positively correlated with economic growth. Democratic systems are characterized by the protection of property rights and individual freedoms, which can create an environment that is conducive to economic growth and development. Additionally, democratic governments are often more responsive to the needs and concerns of their citizens, which can lead to more efficient allocation of resources and greater economic prosperity. However, it is important to note that the relationship between democracy and economic growth is complex and can be affected by a variety of factors, including the quality of institutions, the level of political stability, and the effectiveness of government policies.

It seems as ChatGPT provides a cautious answer to this question, indicating that the AI tool understands that there may be reasons to see this relationship as positive or negative.

Thinking about investor risk, the most important risk is an event like the Russian attack on Ukraine happening again which wiped out 240bn USD of value for companies with investments in Russia, along with the huge losses for investors holding stocks listed in Russia. Additionally, a much more difficult to quantify number is the losses due to forgone business opportunities of companies outside Russia (or Ukraine) that cannot or only to a very limited extent do business with these markets anymore or who have serious supply chain constraints.

Then, what about the difference in the lust for war between democratic and non-democratic countries?

Question: How many wars opposed 2 independent democratic countries during the 20th century? ChatGPT: There were few instances of two independent democratic countries engaging in war with each other during the 20th century. One notable example is the War of the Pacific (1879-1883) fought between Chile, Bolivia, and Peru. Chile was considered a democratic country during this time and all the three countries were independent. Another notable example is the War of the Pacific (1969) between Honduras and El Salvador, which was a 100 hour-long conflict, the case of the war was not just the Football but also caused by disputes over land, economic issues, and immigration. Both countries were democratic but not fully consolidated democracies.

One could easily adhere to the intuition that the absence of war and coercion of man by his fellow man could provide favourable grounds for economic growth. However, there is a whole range of literature that seems to find a slightly negative or null correlation between democracy and economic growth as highlighted in Gerring et al.'s 2005 paper². The main argument of these papers is that the net effect of democracy on economic growth is supposedly not clear or can likely be negative because it could trigger redistribution of income from rich-to-poor and may give more power to certain interests.

² Gerring, John, Bond, Philip, Barndt, William and Carola Moreno, 2005, *Democracy and Growth: A Historical perspective*, World Politics, 57(3), pp. 323-364.



According to this view, growth is a non-linear function of more freedom and electoral rights which tend positive but then mean revert and can turn negative once a moderate amount of democracy has been attained (e.g., Barro 1997³&1999⁴; Helliwell 1994⁵; Borner et al. 1995⁶). This discussion is also related to the question whether market allocations can outperform state intervention (e.g., Buera et al. 2011⁷).

Why do these papers find this negative or inconclusive relationship that goes against at least a libertarian's intuition? One reason could be that the relationship between democracy and economic growth is difficult to measure and there are also many unobserved characteristics. These issues introduce noise and risk for error. An alternative explanation could be that the process of democratization is a long one and maybe preceded and accompanied by political uncertainty and economic contraction. As Acemoglu et al. (2019)8 point out, this J-Curve effect is a clear violation of the assumption of parallel trends that underlies the empirical approaches used in, for instance, the above cited studies (i.e., panel data estimates or diff-in-diff approaches). Moreover, there could be cases where autocratic regimes have short-term positive effects. Claque et al. (1996)9 highlight that while democratic systems as well as property and contract rights are strongly positively correlated in the long run, in the shorter-term, this may also be true in an autocratic regime where the autocrat is interested in future tax collections and national income. However, the shorter his planning horizon becomes (which happens naturally over time), the less property and contract rights are well respected. This also leads Olson (1993)¹⁰ to conclude "Whenever an autocrat expects a brief tenure, it pays him to confiscate those assets whose tax yield over his tenure is less than their total value. This incentive plus the inherent uncertainty of succession in dictatorships imply that autocracies will rarely have good economic performance for more than a generation. The conditions necessary for a lasting democracy are the same necessary for the security of property and contract rights that generates economic growth."

More recent papers try to overcome these problems and find less severe mean reversions in economic growth for democracies (e.g., Cuberes and Jerzmanowski 2009¹¹). They even find a clearly positive association of democracy and economic growth or even a positive causality as it is the case in Acemoglu et al. 2019. If an academic publishes in a peer-reviewed journal research that claims causality, this is a very strong statement. Without going too much into the technical details of the paper that allows the authors to make a much more clear-cut statement on the topic, its findings can be summarized as follows. After a democratization, the GDP of a country increases gradually until it reaches a level of GDP that is 20%-25% higher than what would be the case otherwise. Their results indicate that this favourable impact on GDP is due to a positive contribution of democracy to more investment, economic reforms that encourage more entrepreneurship as well as better schooling and health care systems.

Economic growth is not equivalent to saying that financial development is going well, i.e., that (foreign) investors in a country will find their fortune with these investments. Moreover, it is not clear, in which direction the causality between economic growth and financial development goes (Demetriades & Adrianova 2004). Hence, it is interesting to consider studies that directly address the relationship between democracy and financial markets.

¹¹ Cuberes, David and Michal Jerzmanowski, 2009, *Democracy, Diversification and Growth Reversals*, The Economic Journal, 119(540), pp. 1270-1302.



³ Barro, Robert J., 1997, *Determinants of Economic Growth: A Cross-Country Empirical Study*, Cambridge, Mass.: MIT Press.

⁴ Barro, Robert J., 1999, *Determinants of Democracy*, Journal of Political Economy, 107(S6), pp. 158-183.

⁵ Helliwell, John F., 1994, *Empirical Linkages between Democracy and Economic Growth*, British Journal of Political Science, 24(2), pp. 225-248.

⁶ Borner, Silvio, Brunetti, Aymo and Beatrice Weder, 1995, *Political Credibility and Economic Development*, Macmillan Press, New York.

⁷ Buera, Francisco J., Monge-Naranjo, Alexander and Giorgio E. Primiceri, 2011, *Learning the Wealth of Nations*, Econometrica, 79(1), pp. 1-45.

⁸ Acemoglu, Daron, Naidu, Suresh, Restreop, Pascual and James A. Robinson, 2019, Democracy Does Cause Growth, Journal of Political Economy, 127(1), pp. 47-100.

⁹ Clague, Christopher, Keefer, Philip, Knack, Stephen and Mancur Olson, 1996, *Property and Contract Rights in Autocracies and Democracies*, Journal of Economic Growth, 1(2), pp. 243-276.

¹⁰ Olson, Mancur, 1993, *Dictatorship, Democracy, and Development*, American Political Science Review, 87(3), pp. 567-576.

II. Democracy and Financial Markets

Key take-aways of this section

- Weak investor protection is one important reason why one could expect assets to be priced differently across autocratic and democratic countries.
- Moreover, several studies show that investing into countries with decreasing political risks tended to be historically beneficial on average for investors.
- More economic freedom implies more potential for better economic dynamics and improved property rights in a country and tends to have positive stock market announcement effects.

An important channel that may affect the pricing of assets in financial markets differently between autocratic countries and democracies is related to the potential risk due to expropriation of ownership, ownership concentration and corporate governance. We can aggregate these aspects under the notion of investor protection.

Giannetti and Koskinen (2010)¹² study the effects of investor protection on equilibrium stock prices, returns and portfolio allocation decisions. They show that if investor protection is weak, it is more likely that there will be excess demand in a stock by shareholders to take control of the company and extract private benefits. This will drive up prices of the respective companies and consequently impacts negatively expected returns because the lower level of corporate governance is not correctly priced anymore. In line with this argument, LaPorta et al. (1998)¹³ find that **concentration of ownership is negatively correlated with investor protection.**

Using analyst estimates of political risk, Diamonte et al. (1996)¹⁴ show that average returns in emerging markets countries with decreasing political risk exceed those of emerging markets countries with increasing political risk by approximately 11 percent per quarter. The difference is only 2.5 percent per quarter for developed markets countries. Similarly, Erb et al. (1996)¹⁵ find that political country risk is correlated with future equity returns and equity valuation measures. Strong positive effects of a reduction in political risks on stock markets of emerging markets countries are also found in Perotti and Oijen (2001)¹⁶, whereas the authors focus mostly on the privatization aspect of countries that gravitate towards a freer and less autocratic regime.

Within a sample of 49 emerging markets countries, Lehkonen and Heimonen (2015)¹⁷ documented that democracy and political risk impact stock market returns. Their results also indicate that the relationship between democracy and political risk is parabolic, i.e., there is a threshold level of democracy after which political risk begins to decline. Their paper also highlights that decreases in political risk led to higher returns. However, the results in the paper are somewhat dependent on the model specification and hence not fully satisfying.

Using a longer timeframe and a wider dataset that includes 74 developed and emerging markets countries, Lei and Wisnewski (2018)¹⁸ confirm **the positive association of a country's level of democracy and stock market returns**. They also found that autocratic countries tend to exhibit more volatile stock markets that cannot be explained by simple diversifiable country risk but is related to the

¹⁸ Lei, Xun and Thomas Wisnewski, 2018, *Democracy and Stock Market Returns*, SSRN Working Paper.



¹² Giannetti, Mariassunta and Yrjö Koskinen, 2010, *Investor Protection, Equity Returns, and Financial Globalization*, Journal of Financial and Quantitative Analysis, 45(1), pp.135-168.

¹³ La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei and Robert Vishny, 1998, *Law and Finance*, Journal of Political Economy, 106(6), pp. 1113-1155.

¹⁴ Diamonte, Robin L., Liew, John L. and Ross L. Stevens, 1996, *Political Risk in Emerging and Developed Markets*, Financial Analyst Journal, May/June, pp. 71-76.

¹⁵ Erb, Claude B., Harvey, Campbell R. and Tadas E. Viskanta, 1996, *Political Risk, Economic Risk, and Financial Risk*, Financial Analyst Journal, 52(6), pp. 29-46.

¹⁶ Perotti, Enrico C. and Pieter van Oijen, 2001, *Privatization, Political Risk and Stock Market Development in Emerging Economies*, Journal of International Money and Finance, 20(1), pp. 43-69.

¹⁷ Lehkonen, Heikki and Kari Heimonen, 2015, *Democracy, Political Risks and Stock Market Performance*, Journal of International Money and Finance, 59, pp. 77-99.

level of investor protection. They show that a simple trading strategy that goes long in the top 10% democratic countries and shorts the 10% worst ones yields profitable returns. However, these results clearly have to be taken with a grain of salt because it seems not to be reasonably implementable, and no transactions costs and other real-world constraints seem to be taken into account. Hence, it remains an open topic for future research, that we will address in Part 2 of this research note series on "Authoritarian Regimes and Investment Risk".

Another recent paper in this field is Burnie (2021)¹⁹. Using the not completely objective but still informative democracy index of the conservative think tank Heritage foundation, he finds that stock markets react positively to the release of economic freedom index data. The adjusted change in economic freedom scoring and corruption for a country has a positive impact on the respective country's market returns.

Note, that there is no study that incorporates the effect on asset prices of companies that are listed in a democratic country but that have important exposure through supply chains or sales channels to autocratic countries. This topic seems quite relevant and interesting and will be addressed amongst others in Part 2 of this research note series on "Authoritarian Regimes and Investment Risk".

III. CONCLUSION

"Freedom is a rare and delicate plant. Our minds tell us, and history confirms, that the great threat to freedom is the concentration of power. Government is necessary to preserve our freedom, it is an instrument through which we can exercise our freedom; yet by concentrating power in political hands, it is also a threat to freedom." ²⁰

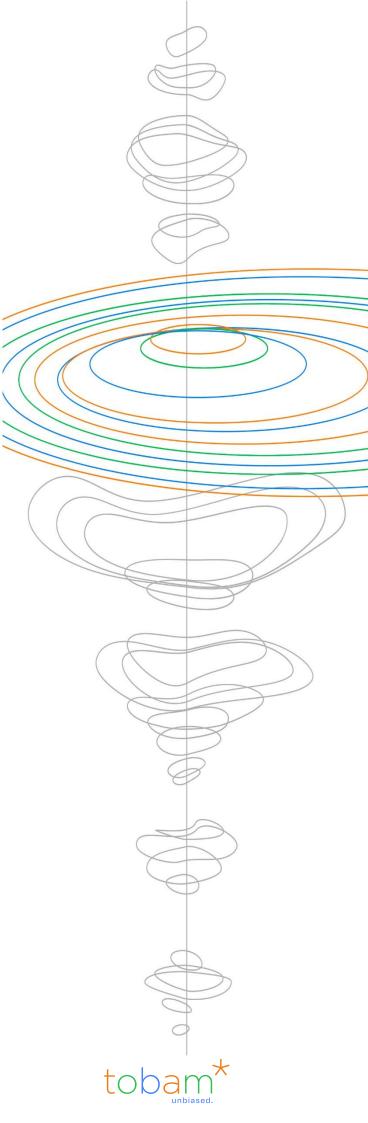
In this note we review academic studies that try to connect Democracy and Civil Liberty with economic growth and financial market returns. The results highlight that freedom and governments that do not concentrate too much power in their hands are important prerequisite for a long-term sustainable growth and increase in wealth. Therefore, assessing the risk factor and how it should be potentially addressed in an investment portfolio seems to be imperative. This is even more relevant after the recent mean reversion in global opening of borders, markets and trade.

In future research, we will first complement the existing empirical evidence on the topic, that from our point of view still seem to be under-researched despite its high relevance. Second, we will present potential ways to address the risks related to autocratic countries in an investment portfolio using an innovative quantitatively driven approach.

²⁰ Friedman, Milton, 1982, *Capitalism and Freedom*, The University of Chicago Press, p.10.



¹⁹ Burnie, David A., 2021, Democracy, Dictatorship, and Economic Freedom Signals in Stock Market, International Journal of Finance & Economics, 26, pp. 375-390.



ABOUT TOBAM

TOBAM is an asset management company offering innovative investment capabilities designed to increase diversification. Its mission is to provide rational and professional solutions to long term investors in the context of efficient markets.

The Maximum Diversification® approach, TOBAM's flagship investment process founded in 2006, is supported by original, patented research and a mathematical definition of diversification and provides clients with diversified core exposures, across equity and fixed income markets.

In line with its mission statement and commitment to diversification, TOBAM also launched a separate activity on cryptocurrencies in 2017.

As at December 2022, TOBAM manages approx. \$6 billion on behalf of clients globally. TOBAM's team is composed of 47 professionals.

CONTACTS

Paris

49-53, Avenue des Champs-Elysées, 75008 Paris- France

- Dublin
- New York
- Luxembourg

Client Service

clientservice@tobam.fr

DISCLAIMER

This document is confidential and is intended only for the recipient. It is for Professional Investors Only.

This document is not an offer for sale of funds to US persons (as such term is used in Regulation S promulgated under the 1933 Act). This material is provided for information purposes only and does not constitute a recommendation, solicitation, offer, advice or invitation to enter in any transaction and should in no case be interpreted as such. The information provided relates to strategies managed by TOBAM, a French investment adviser registered with the U.S. Securities and Exchange Commission (SEC) under the U.S. Investment Advisers Act of 1940 and the Autorité des Marchés Financiers (AMF) and having its head office located at 49-53 avenue des Champs Elysées, 75008 Paris, France. TOBAM's Form ADV is available free of charge upon request. In Canada, TOBAM is acting under the assumed name "Tobam SAS Inc." in Alberta and "TOBAM Société par Actions Simplifiée" in Québec.

Investment involves risk, past performance is not indicative of future results, investors could lose of their investment. All investors should seek the advice of their financial advisor prior to any investment decision in order to determine its suitability.

Past performance and simulations based on back tests are not reliable indicators of future performance, forecast or prediction. Back tested data may reflect the application of the strategy methodology to historical data, and thus the strategies were constructed with the benefit of hindsight and has inherent limitations. TOBAM has continued and will continue its research efforts amending the investment process from time to time accordingly. TOBAM reserves the right of revision or change without notice, of the universe, data, models, strategy and opinions.

The constraints and fees applicable to an actual portfolio would affect the results achieved. The value and the income produced by a strategy may be adversely affected by exchange rates, interest rates, or other factors. This material, including back tests, is based on sources that TOBAM considers to be reliable as of the date shown, but TOBAM does not warrant the completeness or accuracy of any data, information, opinions or results.

The carbon impact shown is the weighted average of carbon emissions corresponding to scopes 1 and 2 of the GHG Protocol. Data on emissions used is obtained from a number of sources including company reports, CDP questionnaire (Carbon Disclosure Project) or the estimation model. The data does not take into account all emissions induced by the firm.

TOBAM's quantitative investment process is supported by extensive proprietary computer code. TOBAM's researchers, software developers, and IT teams follow a structured design, development, testing, change control, and review processes during the development of its systems and the implementation within our investment process. These controls and their effectiveness are subject to regular internal reviews. However, despite these extensive controls it is possible that errors may occur in coding and within the investment process, as is the case with any complex software or data-driven model, and no guarantee or warranty can be provided that any quantitative investment model is completely free of errors. Any such errors could have a negative impact on investment results. We have in place control systems and processes which are intended to identify in a timely manner any such errors which would have a material impact on the investment process.

TOBAM accepts no liability whatsoever, whether direct or indirect, that may arise from the use of information contained in this material. This document and the information herein shall not be reproduced, modified, translated or distributed without the express written permission of TOBAM or TOBAM NORTH AMERICA and to the extent that it is passed on, care must be taken to ensure that any reproduction is in a form which accurately reflects the information presented here.

