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Violence, Living Standards, and Inequality in Modern Times: Empirical Notes on Historical Progress

Nasilje, življenjski standard in neenakost v modernem času: empirične opombe o zgodovinskem napredku

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ABSTRACT

This paper examines the recent debates surrounding the "New Optimists," who argue that the last few centuries have witnessed unprecedented human progress, particularly in terms of rising living standards. Their critics, by contrast, emphasize the persistence of violence and the continued presence of high inequality in modern societies. Using long-run cross-national data on war deaths, homicide, income, and inequality, the paper finds that violence remains low and relatively contained, real after--tax incomes for the world's bottom half have more than doubled, and inequality has stabilized or declined since around 2005. Statistical analyses further show that improvements in property rights, the rule of law, and free trade consistently precede sustained increases in GDP per capita. Progress is neither teleological nor inevitable, but it is measurable, broadly ongoing, and closely tied to open economic and political institutions.

Keywords

progress, Steven Pinker, New Optimists, violence, inequality, living standards

IZVLEČEK

Članek obravnava nedavne razprave o t. i. »novih optimistih«, ki trdijo, da je prišlo v zadnjih nekaj stoletjih do izjemnega napredka človeštva, posebej kar zadeva naraščajoči življenjski standard. Nasprotno pa njihovi kritiki poudarjajo vztrajnost nasilja in trajno prisotnost visoke stopnje neenakosti v modernih družbah. Z uporabo longitudinalnih podatkov o umrlih v vojnah, umorih, dohodkih in neenakosti članek izpostavi, da nasilje ostaja na nizki ravni in razmeroma omejeno, ter da so se realni dohodki spodnje polovice svetovnega prebivalstva več kot podvojili, medtem ko se je neenakost od okoli leta 2005 ustalila ali zmanjšala. S statistično analizo dodatno pokaže, da širitev lastninskih pravic, vladavine prava in prostega trga prispevajo k dolgotrajni rasti BDP na prebivalca. Napredek ni niti teleološki niti neizbežen, je pa merljiv, pretežno trajen in tesno povezan z inkluzivnimi gospodarskimi in političnimi institucijami.

Ključne besede

napredek, Steven Pinker, novi optimisti, nasilje, neenakost, življenjski standard

INTRODUCTION

It is seemingly undeniable that humanity has witnessed stunning progress since the emergence of modernity.[1] Plummeting childhood mortality rates, significantly longer adult lives, the rise of a broad middle class, widely diffused democratic rights, and falling poverty rates are just some of the historically unprecedent achievements of the modern age. However, beyond this general summary, the details of the transition from premodernity to modernity – and especially the attendant social consequences – are highly controversial. Justifiably or not, many protest the very philosophical grounding of the notion of progress, and many more dispute some of its key long- and short-term empirical aspects.[2]

Philosophically, the notion of progress quickly runs up against charges of teleology, linearity, moral realism, complacency, or even cultural chauvinism. Let us consider teleology first. The idea is that arguing for progress necessarily commits one to the sin of arguing for historical inevitability or goal-directedness. And because this is conceptually indefensible – history is not predetermined to end up with more and more human flourishing,

1 Ridley, Matt. *The Rational Optimist: How Prosperity Evolves*. New York: HarperCollins, 2011; Pinker, Steven. *The Better Angels of Our Nature: Why Violence Has Declined*. New York: Viking, 2011; Pinker, Steven. *Enlightenment Now: The Case for Reason, Science, Humanism and Progress*. New York: Penguin Books, 2019; Rosling, Hans, Ola Rosling, and Anna Rosling Rönnlund. *Factfulness: Ten Reasons We're Wrong about the World – and Why Things Are Better Than You Think*. New York: Flatiron Books, 2018; Norberg, Johan. *Progress: Ten Reasons to Look Forward to the Future*. London: Oneworld Publications, 2016; Norberg, Johan. *Open: The Story of Human Progress*. London: Atlantic Books, 2020; Norberg, Johan. *The Capitalist Manifesto: Why the Global Free Market Will Save the World*. London: Atlantic Books, 2023.

2 Gray, John. "John Gray: Steven Pinker Is Wrong about Violence and War." *The Guardian*, 13 March 2015. https://www.theguardian.com/books/2015/mar/13/john-gray-steven-pinker-wrong-violence-war--declining (access: May 2025); Gray, John. "Unenlightened Thinking: Steven Pinker's Embarrassing New Book Is a Feeble Sermon for Rattled Liberals." *The New Statesman*, 22 February 2018. https://www.newstatesman.com/culture/2018/02/enlightenment-now-the-case-for-reason-science-humanism--and-progress-review-steven-pinker (access: May 2025); Braumoeller, Bear F. *Only the Dead: The Persistence of War in the Modern Age*. Oxford: Oxford University Press, 2019; Hickel, Jason. "Progress and Its Discontents." *New Internationalist*, 7 August 2019. https://newint.org/features/2019/07/01/long-read-progress-and-its-discontents (access: May 2025); Dwyer, Philip, and Mark Micale, eds. *The Darker Angels of Our Nature: Refuting the Pinker Theory of History and Violence*. London: Bloomsbury Academic, 2022.

nor does "History" (apart from individual humans) have any intentionality or goals – so too the idea of progress fails.

Let us, next, consider the charge of linearity. Even if a skeptic were to admit that progress can exist in the sense that there are periods in history where certain metrics of human flourishing are improving for the time being and for relatively contingent reasons, an immediate qualification would follow: that is, improvement does not look like a straight line pointing upwards and to the right. Instead, there are many instances of large and small reversals, with improvement looking more like a zig-zagging line.

The moral-realist rebuttal has to do with the heady controversy in metaethics and the is-ought gap. Are "goodness" and "badness" matters of objective fact easily uncovered by, say, empirical testing? Or are they fundamentally different, much more obscure and complicated? If the latter, then any simple claim that we can objectively, empirically establish that human life is getting better over time faces serious issues.

Some also think that arguing for the existence of progress means acceding to the harms and injustices that still persist to this day, despite all the positive developments that have occurred. And lastly, if not that, then it could still be charged that the idea of progress is inextricably bound up with an indefensible cultural essentialism, and thus is irreparably odious. For instance, it might be claimed that if Europe (or the "West") was the first to catalyze modernity and progress, that means it – but not other cultures – is somehow unique or superior.

The obvious reply to these critiques is that one can strip the notion of progress of all the indefensible adjectives without surrendering the core idea of significant improvement in key metrics of human flourishing over time. Indeed, progress is not predetermined, inevitable, or guaranteed. Yes, progress, to the extent it happens, is created by human agency and social institutions, the latter being themselves the product of contingent human agency in the final analysis. Progress is not linear, and it can be either partly or wholly reversed. Moreover, claiming that, say, declining poverty and the spread of women's rights constitute progress does not imply that an objective, stance-independent moral good has been achieved. It just means that a change has occurred that is likely to be subjectively welcomed by most mentally healthy human beings.

However, even when the notion of progress is stripped of some of the burdensome philosophical baggage it has been associated with, significant empirical issues remain. Steven Pinker and his colleagues, sometimes named the "New Optimists," have been sharply criticized by some for presenting allegedly faulty data.[3] For instance, the narrative of declining violence from prehistory to modernity has been challenged as one-sided or simply wrong.[4] The trend, if it exists, might also have been inverted over the short term, as contemporary times have seen a dramatic outburst of violence with the full invasion of Ukraine by Russia in 2022 – the largest interstate war on European soil since the Second World War – the tragic war in Gaza that started in 2023, and the enormous Tigray war that started in 2020 in Africa. Beyond war and violence, critics also fault the New Optimists for overlooking certain uncomfortable but crucial interrelated costs of modernity, such as stagnating incomes for the "have not's," neo--colonial globalization, and skyrocketing inequality.[5]

In what follows, I defend a limited, non-teleological, "weak" notion of progress that is broadly in line with the one espoused by Pinker and his colleagues. More specifically, I empirically illustrate that recent years (or

3 Burkeman, Oliver. "Is the World Really Better than Ever?" *The Guardian*, 28 July 2017. https://www.theguardian.com/news/2017/jul/28/is-the-world-really-better-than-ever-the-new-optimists (access: May 2025).

4 Dwyer and Micale, *The Darker Angels*; Rutar, Tibor. "Establishing an Inverted U-Shaped Pattern of Violence and War from Prehistory to Modernity: Towards an Interdisciplinary Synthesis." *Theory and Society*, 53/3 (2024), 673–699.

5 Hickel, "Progress and Its Discontents"; Hickel, Jason, Dylan Sullivan, and Huzaifa Zoomkawala. "Plunder in the Post-Colonial Era: Quantifying Drain from the Global South Through Unequal Exchange, 1960–2018." *New Political Economy*, 26/6 (2021), 1030–1047; Rutar, Tibor. "The Rich Get Richer and the Poor Get ... Richer, Too: A Critical Evaluation of the Old and New Literature on Globalisation as Neoimperialism." In: *The Neoliberal World Order in Crisis, and Beyond: An East European Perspective*, eds. Marko Hočevar, Tibor Rutar, and Marko Lovec, 65–87. Ljubljana: University of Ljubljana Press, 2023.

decades) have not seen any kind of stark reversal of progress on some of the key metrics pointed to by critics, such as violence, income of the non--rich, or inequality. Using a novel long-run dataset, I also provide evidence that certain open political and economic institutions have historically been strongly associated with social development and progress, broadly in line with the narrative proposed by the New Optimists.

VIOLENCE IN PREHISTORY AND TODAY

More than a decade ago, Pinker argued that (1) the modern world is quite peaceful in relative terms, that (2) this is especially the case since 1945 (and even more so 1990), and that (3) there exists a long-term decline in violence since prehistory.[6]

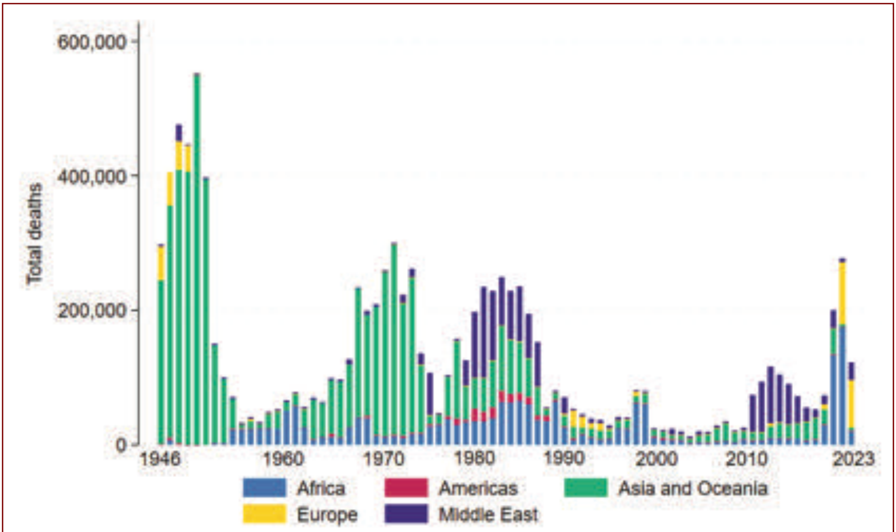

Figure 1: Combatant and civilian deaths in state-based conflicts around the world, 1946–2023.

To be accurate, however, the last statement must be strongly qualified. It seems very clear that the modal prehistoric society – nomadic hunter-

6 Pinker, *The Better Angels of Our Nature.*

-gatherers – was not very warlike at all. Violent mortality was definitely present back then (with roughly 2–3% of all deaths attributed to it), but this was a relatively low starting point from which violence increased over the coming millennia with the transition to agriculture.[7] Then, before the development of a centralized state, rates of violence tripled from the prehistoric base as nomadic hunter-gatherers started settling and developing complex, horticulture- and agriculture-based societies.[8] Afterwards, with the consolidation of historic and especially modern states, the rate of violence fell precipitously and has remained below that of prehistoric hunter-gatherers for quite some time now.[9] Thus, instead of claiming that a relatively uniform, long-term decline in violence has been occurring since prehistoric times, a more complex, *n*-shaped (or inverted U-shaped) evolution of violence characterizes humanity from its infancy to present day.

However, given that around the world increasing human brutality has been so clearly on display for at least the past few years, can we still maintain that contemporary times are relatively peaceful, constituting the so-called "Long" or "New" peace as framed by Pinker and others? Figure 1 plots annual deaths in state-based conflicts in different parts of the world since 1946 with data from the Uppsala Conflict Data Program and Peace Research Institute Oslo.[10] The numbers include the deaths of combatants and civilians due to fighting in interstate, intrastate, and extra-systemic conflicts.

The data clearly show a significant flare-up in violence during the past few years, with the emergence of large-scale wars in Europe, the Middle East, and Africa. The post-1990 "New Peace" era is turning ever more violent, although it is too early to tell whether this constitutes a new trend or a

7 See the archaeological and anthropological evidence presented and discussed in: Rutar, "Establishing an Inverted U-Shaped Pattern." See also: Rutar, Tibor. "The Prehistory of Violence and War: Moving Beyond the Hobbes–Rousseau Quagmire." *Journal of Peace Research*, 60/4 (2023), 720–726.

8 Rutar, "Establishing an Inverted U-Shaped Pattern."

9 *Ibid.*

10 Davies, Shawn, Garoun Engström, Therése Pettersson, and Magnus Öberg. "Organized Violence 1989–2023, and the Prevalence of Organized Crime Groups." *Journal of Peace Research*, 61/4 (2024), 673–693.

short blip. However, the world is still clearly no more violent today than it was during the Cold-War era of the "Long Peace." Moreover, it is precisely two widespread modern phenomena – democracy and capitalism – that seem to figure among the key drivers in the reduction of both interstate and intrastate violent conflict.[11]

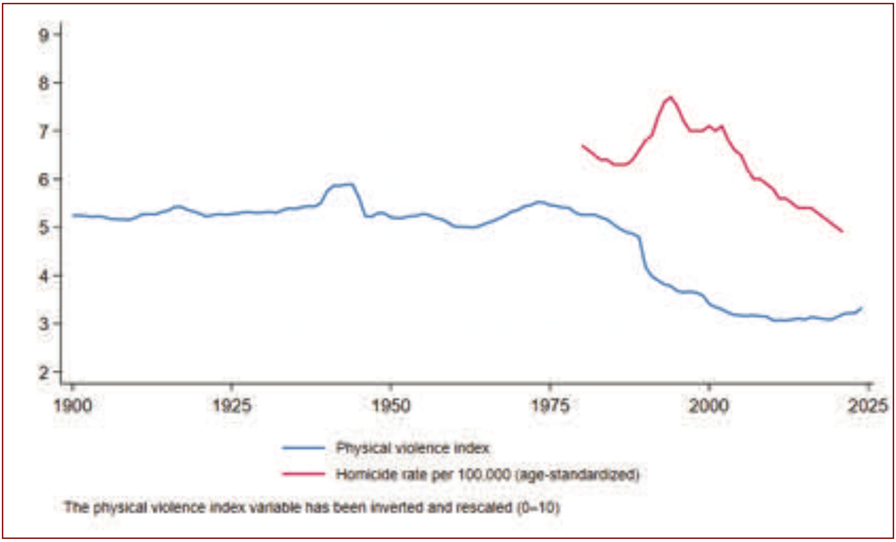

Figure 2: Physical violence index and the homicide rate across the world, 1900–2025.

What about other, non-war related forms of violence? Figure 2 plots the world homicide rate since 1980 and an index of physical violence since 1900.[12] As a long-term comparison, note that the homicide rate in Europe in the year 1250 was on average around 25; today, it is on average between

11 See the review in: Rutar, "Establishing an Inverted U-Shaped Pattern," 687–692. Note also that Figure 1 does not include deaths due to one-sided conflicts, such as the Rwandan genocide. For a more encompassing measure of violence that includes genocide, see: Davies, Engström, Pettersson, and Öberg, "Organized Violence"; Rutar, "Establishing an Inverted U-Shaped Pattern," 680, 688.

12 Data sourced from: GBD: Global Burden of Disease. Available at: https://www.healthdata.org/research-analysis/gbd (access: May 2025); V-Dem: Varieties of Democracy Dataset. Available at: https://v-dem.net/data/the-v-dem-dataset/ (access: May 2025).

0.5 and one.[13] The global homicide rate in the 1980s and 1990s was around seven, while it has dropped to five in 2023. The fall in global homicides has mostly been driven by the developing world.[14] The physical violence index, which captures the extent to which people are free from government torture and political killings, kept steady at middling levels during the first three quarters of the 20th century, dropping significantly between 1975 and 2000, and remaining much the same thereafter. In these terms, the world is a much safer, less violent place today, compared to even just a few decades ago.

LIVING STANDARDS AND INEQUALITY IN THE TIME OF NEOLIBERAL GLOBALIZATION

A persistent critique of Pinker's narrative of progress, and the New Optimists altogether, is that while relative peace might have been achieved, people's material living standards have at the same time decreased, or at least not improved. While global poverty has fallen with increases in economic development across the world, real disposable income for the typical person, or people at the bottom of the distribution, has – so it is said – unfortunately stagnated. In this reading of events, neoliberal reforms and globalization might have helped with extreme poverty in developing regions, and have massively enriched the top 1%, but they have not benefited the majority of the population, and have instead helped hollow out the middle class.

In fact, this is not the case. Figure 1 plots income decile data from the World Inequality Database (WID).[15] It shows that both the global poor and

13 Eisner, Manuel. "From Swords to Words: Does Macro-Level Change in Self-Control Predict Long-Term Variation in Levels of Homicide?" *Crime and Justice*, 43/1 (2014), 65–134; UNODC: Victims of Intentional Homicide. Available at: https://dataunodc.un.org/dp-intentional-homicide-victims (access: May 2025).

14 Rutar, Tibor. "Do Societies with Freer Markets Really Become Less Homicidal over Time? New Evidence from 131 Developed and Developing Societies, 2000–2021." *International Journal of Sociology*, 55/3 (2025), 153–184.

15 WID: World Inequality Database. Available at: https://wid.world/ (access: May 2025).

the global middle class have seen large gains in real disposable income in recent decades. Their absolute living standards have more than doubled, rising by around 150% and 130%, respectively. Other data sources, such as the World Bank's Poverty and Inequality Platform (PIP), show a very similar pattern of substantial growth (exceeding 100%) at the bottom and middle of the distribution since the 1990s.[16]

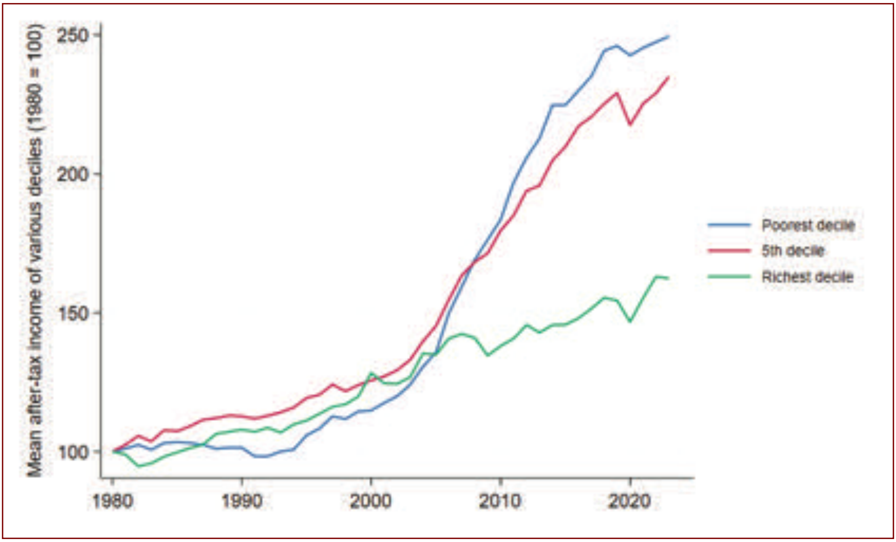

Figure 3: Change in the after-tax, inflation- and purchasing-power parity adjusted mean income within the bottom, middle, and top deciles across the world, 1980–2020.

Has the increase in global living standards across the distribution been driven solely by the developing world, where it is most unambiguously on display?[17] That is, again, not the case. In Europe, the mean income in the bottom decile increased by around 100% between 1980 and 2023, while the fifth decile's income has grown by about 60%. For the United States, the WID documents no increase for the bottom decile between 1980 and 2023, while the Luxembourg Income Study (LIS) and World Bank's PIP register a

16 World Bank: Poverty and Inequality Platform. Available at: https://pip.worldbank.org/ (access: May 2025). See also: Garcia, Diana, Nishant Yonzan, and Christoph Lakner. "Income Growth of the Poor Matters for Reducing Global Income Inequality." Available at: https://blogs.worldbank.org/en/opendata/income-growth-of-the-poor-matters-for-reducing-global-income-ine (access: May 2025).

17 Milanović, Branko. *Capitalism, Alone*. Cambridge and London: Harvard University Press, 2019.

20% increase.[18] For the fifth decile, all three data sources again converge: they show a 50–60% increase in the United States by 2023, just like in Europe. The data show much the same in both regions if we focus on, say, the second and third, or the seventh and eighth deciles. Claims of broad--based stagnation or hollowing out across the developed (or developing) world are simply unsubstantiated.

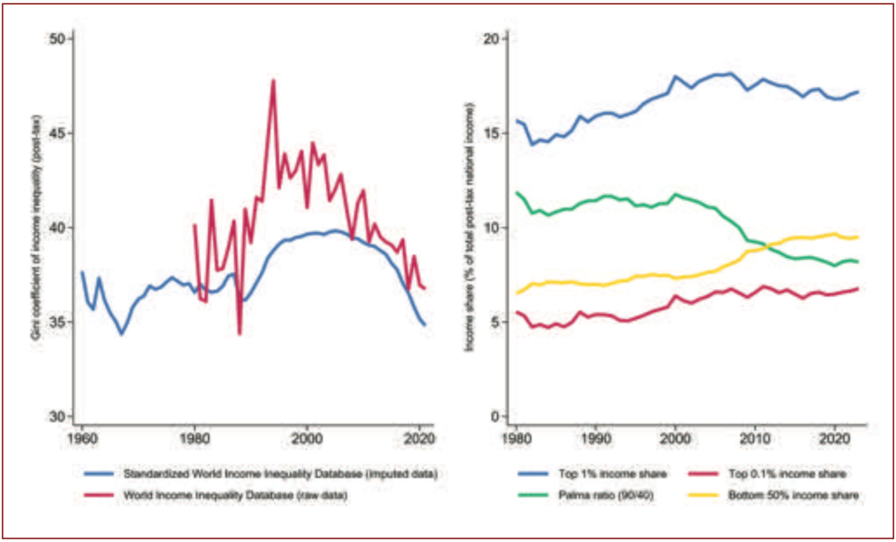

Figure 4: Measures of after-tax income inequality within countries, presented at the world level, 1960–2020 and 1980–2020.

But even if the absolute living standards of the vast majority of the population have been consistently improving in recent decades, have they not gone hand-in-hand with a massive increase in relative deprivation, i.e., inequality? Surprisingly, not at all. Figure 4 presents various measures of post-tax income inequality measured within countries.[19]

18 WID: World Inequality Database; World Bank: Poverty and Inequality; LIS: Luxembourg Income Study Database. Available at: https://www.lisdatacenter.org/our-data/lis-database/ (access: May 2025).

19 Data sourced from: Solt, Frederick. "Measuring Income Inequality Across Countries and Over Time: The Standardized World Income Inequality Database." *Social Science Quarterly*, 101/3 (2020), 1183–1199; UNU-WIDER: World Income Inequality Database. Available at: https://www.wider.unu.edu/project/wiid-world-income-inequality-database (access: May 2025); WID: World Inequality Database.

The first stage of globalization, the neoliberal 1980s and 1990s, saw a sharp uptick in inequality. Be it the Gini coefficient or the income share of the top 1% or 0.1%, inequality undoubtedly rose. However, just as importantly, inequality then stopped increasing in the early 2000s, and even declined thereafter.[20] This is most clearly seen with the Gini coefficient, but the decrease in the Palma ratio (the green line in Figure 4) and the increase in the share of income received by the bottom 50% show much the same. Even the income share of the top 1% has slightly declined since 2000 instead of stagnating or increasing. The same is true if we disaggregate the world average and instead look at the different regions of the world and their within-country inequality (Figure 5).

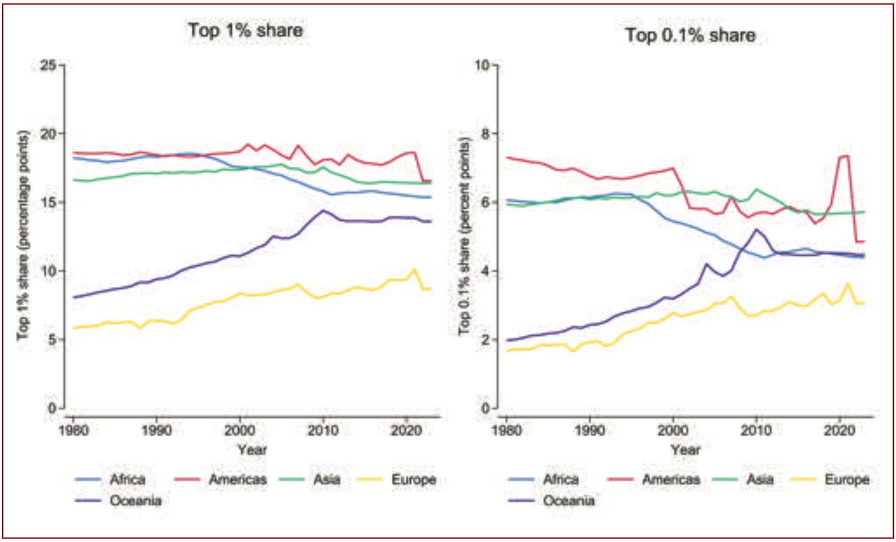

Figure 5: Measures of after-tax income inequality within individual countries, 1980–2020.

20 Clark, Rob. "Income Inequality in the Post-2000 Era: Development, Globalization, and the State." *International Sociology*, 35/3 (2020), 260–283; Rutar, Tibor. "Free-Market Institutions and Income Inequality: Did the Link Persist around the World Even in Times of Falling Within-Country Inequality, 2000–2021?" *International Journal of Comparative Sociology*, 66/4 (2024), 584–605.

What about inequalities of wealth? Judging by the top 1% net personal wealth within countries, they have been holding steady, not increasing, since the mid-1990s.[21]

Such are the levels and trends of inequality in recent history. But how about a longer-term perspective? Perhaps the pre-capitalist, premodern era exhibited significantly less inequality and is, for that reason, preferable to modernity.

That is not the case. Branko Milanović and co-authors report historical income Ginis for dozens of preindustrial societies.[22] The average is above 40, which is comparable to today's middle-income societies and significantly above the most modern, most capitalist societies today, such as Germany, Sweden, or Britain. Moreover, in certain cases, such as the Roman, Han, and Aztec empires, the top 10%, 5%, or even 1% of earners commanded a much larger share of society's total income than is the case today in the United States.[23]

In terms of wealth inequality, the modern and premodern eras are likewise not that dissimilar. The average wealth Gini for premodern farming societies after 4000 BCE is 0.677, while the average for modern societies in the year 2000 is 0.695. Focusing solely on Europe, the wealth share of the top 10% in 2010 is the same as in the early 1300s, just before the outbreak of the plague known as the Black Death struck.[24]

21 See: Figure 2 in Rutar, Tibor. "What Is Neoliberalism Really? A Global Analysis of Its Real-World Consequences for Development, Inequality, and Democracy." *Social Science Information*, 62/3 (2023), 295–322.

22 Milanović, Branko, Peter H. Lindert, and Jeffrey G. Williamson. "Pre-Industrial Inequality." *The Economic Journal*, 121/551 (2011), 255–272.

23 Alfani, Guido, Michele Bolla, and Walter Scheidel. "A Comparison of Income Inequality in the Roman and Chinese Han Empires." *Nature Communications*, 16/1 (2025), article 3248.

24 Alfani, Guido. "Inequality in History: A Long-Run View." *Journal of Economic Surveys*, 39/2 (2025), 546–566. For developments over the past century, see: Waldenström, Daniel. *Richer and More Equal: A New History of Wealth in the West*. Cambridge and Hoboken: Polity Press, 2024.

THE HISTORICAL PREDICTORS OF DEVELOPMENT

If modernity is synonymous with the various social improvements documented by the New Optimists, what caused the rise of modernity in the first place? A major structural cause proposed by economists, sociologists, and political scientists – endorsed by the New Optimists alongside other more ideational causes – is the appearance of capitalism and the Industrial Revolution. More specifically, a set of novel political and economic institutions, or social rules and relations, emerged in the centuries around 1800 that both enabled and incentivized competition, increases in productivity, specialization, and "self-sustaining" modern economic growth. That, in turn, empowered the masses to demand further economic and political reforms, or the general opening-up of society, with the result being a virtuous feedback loop, whereby social reforms shifted the balance of power, and the shifting balance of power spurred additional reforms.[25]

To give a potted history of the dynamic, three crucial points should be underlined.[26] First, what was the trigger that set the transition to capitalism and the Industrial Revolution in motion? As mentioned at the start of the paper, any tendency towards teleology should be resisted here. Whether one privileges a more materialist account, such as the one proposed by the Marxist Robert Brenner and endorsed by contemporary institutionalists like Daron Acemoglu and James A. Robinson, or a more culturalist explanation, like the one recently defended by Joseph Henrich, the initial trigger for modernity was unexpected and not already prefigured in premodern

25 North, Douglass C., John Joseph Wallis, and Barry R. Weingast. *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge: Cambridge University Press, 2009; Acemoglu, Daron, and James A. Robinson. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business, 2012; Acemoglu, Daron, and James A. Robinson. *The Narrow Corridor: States, Societies, and the Fate of Liberty*. New York: Penguin Press, 2019.

26 For a more detailed account, see: Rutar, Tibor. *Rational Choice and Democratic Government: A Sociological Approach*. London: Routledge, 2022; Rutar, Tibor. *Capitalism for Realists: Virtues and Vices of the Modern Economy*. London: Routledge, 2023.

societies.[27] In other words, a radical break or rupture had to occur so that the stable premodern equilibrium fell apart and started giving way to a new, modern social equilibrium. For Brenner and the new institutionalists, sudden, unexpected demographic shocks, such as the Black Death and the diverging reaction of the ruling classes to the attendant social disruption, are key. For Henrich, the peculiar bans and normative strictures of Christianity that were ostensibly suddenly being promoted by the Church between 500 and 1000 CE are more important.

Whatever the case may be, there is widespread agreement that fundamental social structures, institutions, and practices in Europe (or at least certain parts of Europe, such as in England and the Netherlands) witnessed significant – and unpredicted, "exogenous" – changes by around 1400–1600 CE. These changes were mostly related to the dissolution of certain age-old practices and the emergence of very novel forms of behavior. The most significant ones are related to competitive economic exchange, private property, and voluntary mass cooperation with strangers.

Second, who were the social actors behind the transition? As with teleology, simplistic notions of top-down history, or of impersonal social forces acting on their own behalf, should be resisted. Instead, the proximate historical motor behind the changes was various social groups and their everyday – and sometimes revolutionary – struggle. To give an illustrative example, the aftermath of the Black Death left English peasants and laborers emboldened on account of their rising wages and living standards (due to standard Malthusian reasons). In turn, the landed elites in England were faced with a revenue crisis, which they tried to solve by repressing labor. But the masses, on account of their temporarily improved bargaining position, resisted and even pushed further with demands to abolish certain unjust premodern institutions, such as serfdom. In the end, they succeeded. The

27 Brenner, Robert. "Property and Progress: Where Adam Smith Went Wrong." In: *Marxist History-Writing for the Twenty-First Century*, ed. Chris Wickham, 49–111. Oxford and New York: Oxford University Press, 2007; Acemoglu and Robinson, *Why Nations Fail*; Henrich, Joseph. *The WEIRDest People in the World: How the West Became Psychologically Peculiar and Particularly Prosperous.* New York: Farrar, Straus, and Giroux, 2020.

landed elites were consequently forced to find alternative economic means of reproducing themselves. But given that absolutism – the easiest path to doing so (in lieu of serfdom) – was not as readily available in England as on the continent, they were faced with a conundrum. At the same time, they possessed hundreds of acres of newly unworked land that could be temporarily leased at competitive prices to relatively wealthy peasants. The sudden dissolution of serfdom, the structural absence of absolutism, and the simultaneous (historically contingent) possibility of engaging in competitive leasing of land allowed the English landed elites to unexpectedly stumble upon a key element of the capitalist economy: market competition.[28]

This is just one brief example, and its details should not detain us here. The point is that the political and economic struggle between various social groups (not always necessarily classes) is seen as a key dynamic undergirding the whole process of the transition to modernity. Social structures do not act, people do.

The third important question to ask is: What are the social consequences of the transition from a Malthusian, premodern world to the modern capitalist world of explosive, self-sustaining economic growth? The consequences are large and all-encompassing. Again, broad agreement exists that the unleashing of modern economic growth resulted not only – trivially and tautologically – in the expansion of the economy, but also in a whole host of indirect shifts. For instance, the material living standards and structural capacities of the common people improved massively over the medium and long term as they were being transformed from land-bound rural peasants into mobile urban workers. This encouraged and facilitated the disenfranchised masses to press for further political change, ultimately leading to the creation and expansion of mass liberal democracy and the securing of fundamental human rights. With the masses now politically empowered, the rich could be more heavily taxed, leading to significant

28 Brenner, "Property and Progress," 82–111; Rutar, *Capitalism for Realists*, 22–50.

reductions in income and wealth inequality over the 20th century, and to the rise of the welfare state.[29]

There are lots of details that could, and should, be filled in to add resolution to this abstract image of modernity. It could, for instance, be asked how colonialism fits in, or how all these considerations relate to the uneven development of certain parts of the world during the 20th century, and more. While a full discussion of these topics lies beyond the scope of this paper, readers are encouraged to consult my published work for a more comprehensive treatment of these issues.[30]

STATISTICAL ANALYSIS

As already intimated, economically speaking, some of the key novel social institutions that emerged with modernity revolved around secure property rights, controlling inflation, the rule of law, freedom of trade, and deregulation. Securing private property, abolishing the guilds, abandoning serfdom and slavery, reducing tariffs and non-tariff barriers, and allowing freer enterprise helped generate broad-based and sustained, year-on-year, economic growth. Importantly, this assertion can be corroborated by statistical analysis. Figure 6 presents simple scatterplots of the cross-national relationship between open (or inclusive) economic institutions and economic development since 1850 onwards for a sample of 21 Western societies.[31]

29 Usmani, Adaner. "Democracy and the Class Struggle." *American Journal of Sociology*, 124/3 (2018), 664–704; Kadivar, Mohammad Ali, Adaner Usmani, and Benjamin Bradlow. "The Long March: Deep Democracy in Cross-National Perspective." *Social Forces*, 98/3 (2020), 1311–1338.

30 See: Rutar, "Establishing an Inverted U-Shaped Pattern"; Rutar, "The Rich Get Richer"; Rutar, *Capitalism for Realists*; Rutar, Tibor. "Re-Examining Extreme Poverty Before and After the Transition to Capitalism, 1300s–1900s: The Issue of Definition, Periodization, Measurement, and Causal Responsibility." *International Review of Sociology*, 34/2 (2024), 300–334.

31 Data sourced from: de la Escosura, Leandro Prados. "Historical Index of Economic Freedom (HIEL)." Available at: https://frdelpino.es/investigacion/en_gb/world-economy/global-economic-freedom/ (access: May 2025); Bolt, Jutta, and Jan Luiten Van Zanden. "Maddison-Style Estimates of the Evolution of the World Economy: A New 2023 Update." *Journal of Economic Surveys*, 39/2 (2025), 631–671.

As a more fine-grained analysis, Table 1 reports multivariate fixed-effects panel regressions with lagged economic freedom (measured with the Historical Index of Economic Liberty) as the main predictor and GDP per capita as the outcome variable. The time-period extends from the 1850s up to the present day. Here, I am not simply cross-sectionally estimating whether countries with more economic freedom are also richer. Rather, I am analyzing whether increases in economic freedom over time (within each country) correlate with over-time increases in GDP per capita (again, within each country). A significant upside to such panel models is that, even though they cannot firmly establish causality, they partial out any unobserved, time-invariant confounders or factors that differ across countries, and thus a crucial source of bias is controlled for.[32]

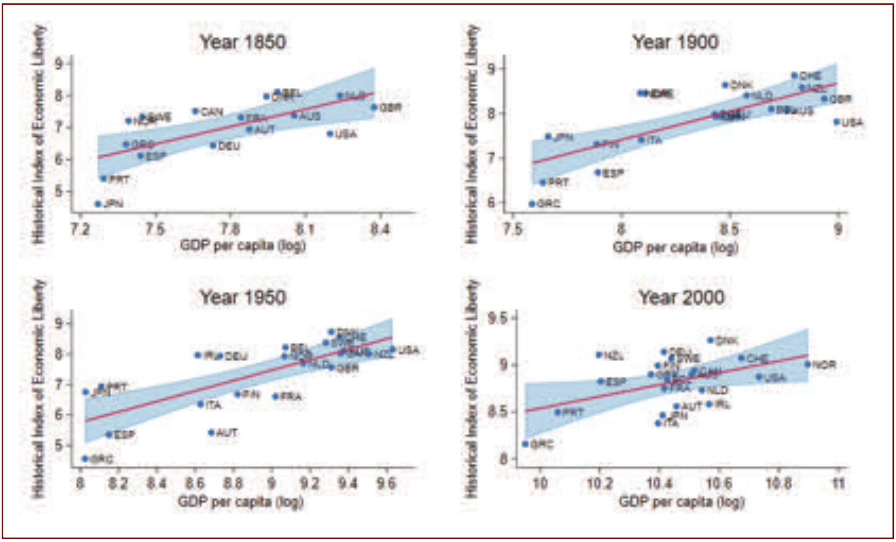

Figure 6: Bivariate correlation between economic freedom and GDP per capita, 1850–2000.

Model 1 first replicates the already mentioned bivariate relationship. Absent controls for temporal variation, economic freedom and economic development are statistically significantly and strongly related. A one-point

32 Cunningham, Scott. *Causal Inference: The Mixtape*. New Haven and London: Yale University Press, 2021.

increase in economic freedom (on a 0–10 scale) over time predicts an 89% increase in GDP per capita. This simple, bivariate relationship is of course mostly correlational and not indicative of causation, as other relevant confounders that change over time, such as democracy or violence, have not yet been introduced into the analysis.

Models 2 and 3 show how the relationship changes and shrinks once time-varying controls are implemented.[33] The fully specified Model 3 is more indicative of potential causal relationships, albeit even here reverse causality (GDP per capita → economic freedom) is likely biasing the estimate to some extent, as economic freedom and economic development are mutually reinforcing phenomena. Importantly, though, omitted-variable bias is not likely. Various formal regression sensitivity tests show that, in the present case, time-varying unobserved confounders would have to be between 42% and 157% as strong as my included controls for the relationship between economic freedom and development to become statistically non-significant.[34] Such strong residual confounding is not likely, because most factors of development are already accounted for in the fully specified Model 3: its total within-R2 is 0.88, meaning almost all the variance is already explained.

If the relationship from Model 3 were to be interpreted as causal, it would suggest that a one-point increase in economic freedom results in GDP per capita being 12% higher.

As an additional test, I specified a model that explicitly controls for state capacity as a possible confounder.[35] Model 4 in Table 1 shows that even when we partial out the effect of state capacity – measured through a

33 Data sourced from: V-Dem: Varieties of Democracy.

34 Both numerical estimates are based, respectively, on tests created by: Diegert, Paul, Matthew A. Masten, and Alexandre Poirier. "arXiv: Assessing Omitted Variable Bias When the Controls Are Endogenous." Available at: https://arxiv.org/abs/2206.02303 (access: May 2025); Oster, Emily. "Unobservable Selection and Coefficient Stability: Theory and Evidence." *Journal of Business & Economic Statistics,* 37/2 (2019), 187–204.

35 Data sourced from: O'Reilly, Colin, and Ryan H. Murphy. "An Index Measuring State Capacity, 1789–2019." *Economica*, 89/355 (2022), 713–745.

comprehensive index that includes data on state authority over a territory, public administration, particularistic or public goods, state fiscal source of revenue, and educational equality – the coefficient on economic freedom remains statistically significant, positive, and sizable.

	(1)	(2)	(3)	(4)
Historical Index of Economic Liberty	0.636***	0.0802	0.117***	0.109***
	(0.148)	(0.0563)	(0.0267)	(0.0217)
Liberal democracy		3.336***	1.175***	0.371+
		(0.204)	(0.274)	(0.209)
Share of urban population			0.444***	0.492***
			(0.0403)	(0.0665)
Civil society partici-pation (women)			1.401***	1.637***
			(0.123)	(0.143)
Physical violence index			-0.816***	-0.971***
			(0.171)	(0.160)
Clientelism index			0.157	0.0680
			(0.114)	(0.191)
State capacity (comprehensive)				0.123***
				(0.0443)
Constant	4.145***	6.729***	3.961***	3.871***
	(1.151)	(0.431)	(0.297)	(0.516)
Observations	**3300**	**3281**	**2736**	**1821**

Driscoll-Kraay standard errors in parentheses.
All independent variables lagged by five years.
*+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$*

Table 1: Fixed-effects panel regressions with GDP per capita as the dependent variable; unstandardized coefficients.

In unreported regressions, I also used a different panel estimator: the pooled mean-group estimator with autoregressive distributed lag. The results were in line with those presented in Table 1, suggesting that higher economic freedom is linked to higher long-run income levels and that economic freedom reforms generate a short-run growth bump.

Additionally, I performed several robustness checks to test the sensitivity of the main result. Figure 7 presents the coefficients on economic freedom from these additional tests, where I varied the lag period of independent variables (10 and two years, respectively), constrained the sample temporally in different ways, and estimated both standard errors and coefficients. It shows that the positive correlation between economic freedom and GDP per capita is mostly robust and of a similar size to the one uncovered by the main regression model.

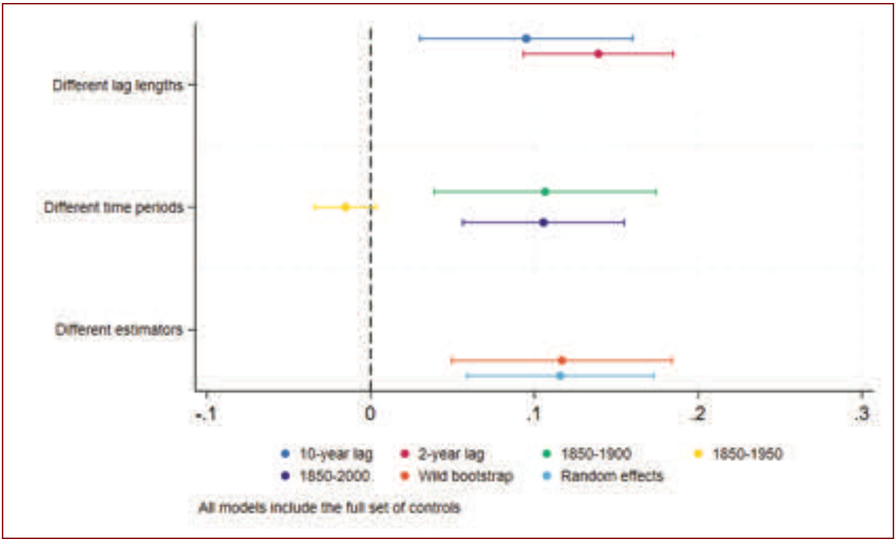

Figure 7: Coefficient plot of various robustness checks.

Lastly, relying on the disaggregated index of economic freedom, I was able to corroborate the claim that secure property rights, the rule of law, and open and free international trade are related to improved economic development. However, I find no evidence that deregulation positively predicts development. Instead, deregulation seems to harm development.

CONCLUSION

The evidence presented in this paper supports a "weak," non-teleological notion of progress: when modern liberal institutions take root, they tend – on balance and over time – to broaden human flourishing. The long arc of violence has not bent smoothly downward, but the data show that today's world is markedly less murderous than both the agrarian past and most of the 20th century. While recent wars are a cause for concern, it is still too early to tell whether they constitute any significant reversal of the long-term trend. Homicide rates as well as state violence indices continue their post-1970s decline. Materially, the gains are even clearer. Real after-tax incomes have risen sharply for the bottom half of the global distribution, extreme poverty has plummeted, and the feared "hollowing-out" of the middle class finds little empirical support outside a few isolated series. Inequality did widen during the first wave of neoliberal globalization. But it then plateaued or even eased after 2000, and both income and wealth disparities today are comparable to – or below – those of many pre-industrial societies.

Crucially, the paper's panel analyses indicate that these advances are not unpredictable and completely contingent. Expansions in economic freedom, secure property rights, the rule of law, free trade, and participatory democracy are consistently associated with subsequent growth in GDP per capita, even after controlling for a battery of confounders. In line with the narrative propounded by the New Optimists, progress emerges where open economic and political institutions, including state capacity, create incentives for innovation and growth, discipline predation, and empower citizens to press for further social reforms.

None of these considerations imply inevitability. Progress can stall or reverse when those institutions erode, when complacency allows new forms of exploitation, or when existential challenges – such as climate change, authoritarian resurgence, and disruptive technologies – outpace our adaptive capacity.

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POVZETEK

Steven Pinker in drugi t. i. »novi optimisti« trdijo, da je prehod iz predmodernih družb v kapitalistično modernost v zadnjih stoletjih prinesel velik in trajen zgodovinski napredek človeštva. Skeptiki ostajajo zadržani iz različnih teoretičnih in empiričnih razlogov. Kot poudarjajo, je treba na napredek gledati s kritično distanco, saj gre za pojem, ki je pogosto obremenjen s teleologijo, linearno predstavo razvoja, kulturno diskriminacijo in podobnim. Kritiki prav tako izpostavljajo, da so z empiričnega vidika sodobne kapitalistične družbe morda res bogatejše kot družbe v preteklosti, vendar pa je cena za razcvet bogastva ponovni porast nasilja in nebrzdana rast velikih družbenih neenakosti.

Članek predstavlja novejše longitudinalne podatke o tej problematiki in pokaže, da so najpogostejše kritike napredka večinoma zmotne. Čeprav so podatki o nasilju zapleteni in večdimenzionalni, je svet na splošno varnejši, kot je bil v predmodernih časih. Revnejši sloji so bili deležni pomembnih izboljšav življenjskega standarda v moderni dobi nasploh in še posebej v zadnjih nekaj desetletjih. Neenakost se je v prvi fazi neoliberalne globalizacije dejansko povečala, vendar se je nato ustalila in od okoli leta 2005 celo nekoliko zmanjšala. Prav tako je mogoče pokazati, da so ti trendi močno povezani s sodobnimi institucijami, kot so varne lastninske pravice, prosti trgi, demokratični politični sistemi in z močno socialno državo.

Članek sklene misel, da je mogoče v veliki meri soglašati z novimi optimisti, ki trdijo, da je modernost – in še posebej inkluzivne politične in gospodarske institucije kot ključni stebri modernosti – povezana z znatnim napredkom. To pa ne pomeni, da je napredek nujen ali neizbežen, saj se lahko ustavi, kadar liberalne institucije oslabijo ali kadar novi izzivi, kot je globalno segrevanje, presežejo naše prilagoditvene zmožnosti.