The Varying Fortunes of Democratic Capitalism [i]

Carles Boix [ii]

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[ii] Princeton University. E-mail: cboix@princeton.edu

Ulysses, Homer tells us at the very beginning of the Odyssey, was a “complicated man”. Democratic capitalism, similarly multifaceted and subject to historically varying fortunes, is too.

At the peak of the first industrial revolution, both the right and the left judged democracy and capitalism to be intrinsically at odds with each other. In Britain, the Whig historian and politician Thomas Macaulay declared universal suffrage to be “incompatible, not only with this and that form of government, [but] with everything for the sake of which government exists ... with property and ... with civilization” (Macaulay 1842). In France, Jules Baroche, a leading liberal in the 1848 revolution, opposed it as “necessarily leading, sooner or later, to the triumph of those appalling ideas that are called socialism” (quoted in Kahan 2003, 79). Only two years later, and writing from the left, Marx concurred, seeing universal suffrage as a mechanism that “forces the political rule of the bourgeoisie into democratic conditions, which at every moment help the hostile classes [the people] to jeopardize the very foundations of bourgeois society” (Marx 1934, 69–70). A hundred years later, however, a growing number of social scientists proclaimed democratic capitalism to be the final stage of economic development or, in even grander terms, the end of History. As Daniel Bell concluded in his influential collection of essays *The End of Ideology*, “in the Western world, there is today a rough consensus among intellectuals on political issues: the acceptance of the Welfare State; the desirability of decentralized power; a system of mixed economy and of political pluralism” (Bell 1988: 402-3). Yet, today, in a new intellectual turn, a mounting number of voices point to the parallel rise of economic inequality, political polarization and populism as proof of the inherent instability (and even imminent demise) of democratic capitalism.

In this chapter, I propose a way to reconcile these different, seemingly contradictory, theoretical standpoints, by taking two steps. First, I start by accepting the nineteenth-century vision of capitalism and democracy as two separate ‘systems’ with different internal logics, potentially in tension with each other. I then point to the fact that the actual level of friction (or incompatibility) between them varies with both the nature or internal structure of capitalism, which has changed over time, and the level of economic prosperity generated by the market system.

While democracy (at least ideally) allocates power according to a principle of strict equality (one person, one vote), capitalism rewards the owners of the factors of production according to the

latter's employment and market prices. A democratic decision-making system enables, in principle, a majority to alter the market allocation of returns to factors—redistributing them in such a way as to mirror the political equality of democracy (or, in fact, even to benefit that majority) and, therefore, jeopardizing the welfare and position of the factor owners. The introduction of "equal and universal suffrage" was, for John S. Mill, a "violent remedy" because it implied "disfranchising the higher and middle classes . . . who comprise the majority of the most intellectual in the kingdom" (John. S. Mill, "Recent Writers on Reform," quoted in Selinger and Conti (2015), page 291).[1]

The tension between capitalism and democracy and, hence, the actual level of intervention implemented by a democratic majority have varied, however, with the type of capitalism in place. The technologies and organization of production and, above all, the kind of labor skills that have been complementary to capital have shaped the pattern of employment, wages, the distribution of income, and capital's incentives to invest in public goods. And, as a result, they have had a crucial effect on the likelihood of establishing and maintaining democratic institutions. The nineteenth-century capitalism that emerged with the first industrial revolution was characterized by a high demand for unskilled labor, low wages, and, at least in the new industrial towns, declining living standards. In a context of raising inequality and considerable social conflict, full democracy remained out of the question. By contrast, twentieth-century capitalism, founded on the use of electricity and the invention of the combustion engine and the assembly line, relied on semiskilled and skilled individuals as the main type of labor complementary to capital. Fast economic growth, the formation of a broad affluent working class, and the relative equalization of incomes made universal suffrage possible and, with it, the advent of peaceful coexistence of democracy and capitalism. Finally, the information revolution (IT) of the last decades has fueled the demand for high-skilled jobs and widened the wage and income distribution of advanced economies, in the process rattling the political consensus that

[1] This assumption about the presence of a fundamental friction between capitalism and democracy is not accepted universally (see, for example, Friedman 1962 and Tabarrok, this volume). Assuming, as this chapter does, that there is a fundamental conflict between the logics that animate both institutional structures does not imply that democracy and capitalism cannot coexist: that they do and the conditions under which they do is precisely the object of the current investigation.

prevailed during the so-called golden era of democratic capitalism.

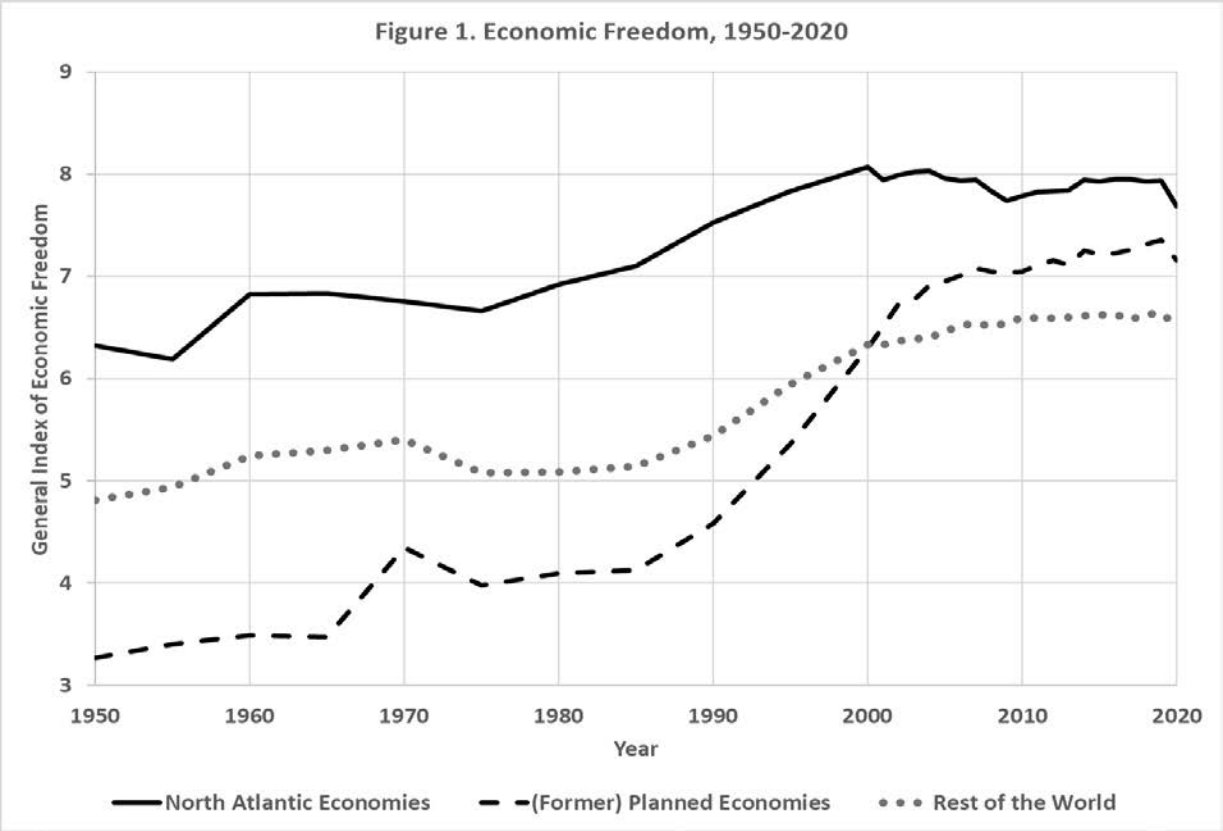
I organize the rest of this chapter as follows. Section 1 offers a brief history both of the contested but mostly growing hegemony of capitalism and of the expansion of democracy in the last two centuries. Section 2 discusses the conditions that may explain the emergence of democratic capitalism, validating them with comprehensive data since 1900. Section 3 turns to consider the political and social challenges of today's IT revolution, with a particular interest in developing countries.

1. Capitalism and Democracy: A Historical Overview

The story of capitalism over the last two century is one of a contested but, in the long run, successful diffusion across the globe. Starting in the nineteenth century, industrialization and the triumph of economic liberalism blew up most of the existing regulatory and corporatist structures in place in modern Europe—from feudal rights and guild corporations to domestic trade barriers and distinct jurisdictional structures within nation-states (Polanyi 1944). A fall in the costs of transportation and communication and the practice of imperialism extended the new laissez-faire economic regime to the rest of the world (Hobsbawm 1968, O'Rourke and Williamson 2001, Baldwin 2016).

The unfettered capitalism invented in Manchester would then experience a reversal starting in the late 1910s. The Russian Revolution and the Second World War ushered the imposition of planned economies in the Soviet Union, Eastern Europe, China, and several South East Asian countries. Following the collapse of European empires, numerous former colonies experimented with some variant of heavy state intervention in the form of credit rationing, import substitution policies, and/or state-led industrial policies. In the early 1970s, public-owned enterprises accounted for 27 percent of gross fixed capital formation in developing countries (excluding planned economies)—reaching up to 34 percent in India and Pakistan and 48 percent in Tanzania. Developed countries moved away too from laissez-faire policies—setting up a comprehensive system of labor market regulations, fostering nationwide wage bargaining between trade unions and business associations, and developing a state-owned business sector. However, their level of public intervention was much more tepid than in low-income countries.

In the 1970s, state-owned business represented 11 percent of all gross capital formation.[2] The Fraser Institute has developed a comprehensive index of economic freedom at the country level from 1950 to 2020. The overall index ranges from 0 to 10 with a higher number indicating lower levels of public intervention in the economy.[3] From 1950 to 1975, the world mean fluctuated around 5.40 with a standard deviation of 1.25. It hovered around 6.75 in developed economies and 5.10 in developing countries.



Liberal capitalism made a comeback in the last third of the twentieth century. Figure 1 plots the evolution of the Fraser index of economic freedom from 1950 to 2020 for three groups of countries: "North Atlantic" economies (North America and Western Europe), countries that had

[2] The data on investment by state-owned businesses comes from Short (1984), Table 1.

[3] The data covers around 115 for an extended series before yearly measurement started in 1970. Starting in 1970, the data contains 86 in 1970 and then increases gradually to cover 168 in 2020. The data is available from the Fraser Institute in https://www.fraserinstitute.org/sites/all/modules/custom/ftw_maps_pages/files/efotw-2022-master-index-data-for-researchers-iso.xlsx.

experienced a socialist planning system at some point in time (before the collapse of the Soviet Union), and the rest of the world. North Atlantic countries led the way in a process of economic liberalization. Starting in the late 1970s, their score rose to around 8 in the twenty-first century. After Gorbachev's perestroika and Deng Xiaoping's liberalization program, former planned economies converged rather quickly from an average of 4 in 1980 to 7 in the early 2000s. The rest of the world also moved, albeit at a slower pace, toward a less regulated economy—from an index of 5.1 in 1980 to about 6.5 in the 2010s.

Historically, capitalism and democracy have had a checkered relationship. During the long nineteenth century of classic liberalism and unconstrained globalization, democracy was uncommon. Before the revolutionary wave of 1848, only a few states in the United States and several cantons in Switzerland had male universal suffrage and relatively competitive procedures of government selection. In 1848, France and Switzerland extended the suffrage to all men, and by 1914, about one fifth of all independent states had competitive elections and male universal suffrage. In only four, women could vote on the same basis as men. In the aftermath of the World War I, 28 countries, or 42 percent of all sovereign states, had male universal suffrage and competitive elections. A string of democratic breakdowns and war more than halved that number to 13 countries in 1940.

Following World War II, between 30 and 40 percent of all sovereign countries had democratic institutions by the middle of the twentieth century. In contrast to the era of classical liberalism, when suffrage was tightly restricted in almost all countries holding elections, democracy became correlated with the prevalence of a market economy. Whereas among dictatorships the Fraser index of economic freedom was 4.88, for democracies it was 6.09—a difference of 1.21 points. In a linear regression model controlling for per capita income, democracy remains statistically significant and implies that going from no democracy to full democracy in 1975 was associated with an increase of 0.90 points in the level of economic freedom.[4]

The process of economic liberalization that started in the 1980s came hand in hand with a prolonged democratization wave. After a long authoritarian interlude, several Southern European

[4] In the early 1970s, 13.7 percent of total investment came from state-owned business in democratic countries (most of them, developed). In authoritarian countries (excluding socialist economies), the average was 23.1 percent. Own calculations using Short (1984), Table 1.

countries transited to democracy in the later 1970s, followed by Latin America in the following decade. Democratic transitions peaked with the fall of the Soviet Union in the early 1990s. In the early 2000s, the share of democracies plateaued at around 60 percent of all sovereign countries.

At the end of the second decade of the twenty-first century, the association between democracy and the index of economic freedom, which I take here as a proxy of market capitalism, continued to be robust. Having democracy was still associated with an additional point in the Fraser institute—and the association remained statistically significant even controlling for per capita income. Yet, as I explore in more detail at the end of Section 2, the golden age of democratic capitalism hailed by Daniel Bell has given way to a state of political anxiety among well-established democracies, now buffeted by growing political polarization, the rise of populism, declining levels of voters' trust in both politicians and political institutions, and a much debated process of democratic backsliding.[5]

2. The Foundations of Democratic Capitalism

If the past is any guide, capitalism and democracy are neither inherently compatible nor intrinsically in conflict with each other. Instead, the claim of this chapter is that their evolving relationship has been governed by mediating factors—more specifically, economic inequality and economic development—that have shaped the extent to which political and economic agents accept combining them or not. First, the organization of production, which, by influencing the social distribution of wealth, has made it more or less easy to reconcile capitalism with the principle of political equality that animates the idea of democracy. Second, the level of wealth generated by capitalism.

In the rest of this section, I first discuss each factor separately. Then I integrate both of them (inequality and growth) to explain the success of democratic capitalism. Still, as I clarify at the end of this exercise, we should not read the effects of capitalism on the possibility of having democracy in a deterministic way. Making democratic capitalism work depends too on the

[5] Some of the factors that have increased the level of political tension within advanced economies (a process of globalization that has eroded the position of their industrial working class) may be partially responsible for the reduction of political conflict (and perhaps the process of democratization) in newly industrialized countries.

political and institutional strategies that policy-makers develop in response to the technological transformations spurred by the process of creative destruction that defines the market economy. This is particularly true when the level of economic development is such that policy-makers have considerable room to reconcile the potentially conflicting logics of democracy and capitalism (for example, using compensatory spending).

Different Capitalisms, Different Distributions of Wealth

Since the rise of industrial capitalism, several waves of technological change have transformed the system of production and, in particular, the kind of labor that was most useful (i.e., complementary) to capital. Broadly speaking, while nineteenth-century firms employed unskilled labor, twentieth-century companies relied on semi-skilled labor (organized around the assembly line). In turn, today's information technologies favor high-skilled labor while making semi-skilled labor routine tasks redundant.

The evolving technological and institutional configuration of capitalism, resulting in changing rewards for different types of labor and for capital over time, shaped, in turn, the incentives of social and economic agents to cooperate with each other and, in the political realm, accept the possibility of contesting and losing elections (while maintaining the essential attributes of a market economy).

The first industrial revolution, set in motion in Manchester, put an end to a system of production that relied on skilled individuals working is small artisanal shops. British industrialists reorganized the manufacturing process as a sequence of routinized tasks to be performed in large factories. That division of labor into small tasks or routinary actions was then gradually mechanized employing a growing number of machines. By 1850, mechanized factories dominated the production of cotton, a fraction of wool and worsteds, and iron forging in large blast furnaces. Two decades later, manual movements had been eliminated in the refinement of petroleum and the technologies employed there quickly spilled over to the distilling industry. Around the same time, metalworking industries started to introduce machines to cut and shape metal. Automatizing the manufacture of complex items such as bicycles, clocks, or sewing machines took even longer. Nevertheless, the factory system defined the entire industrial system in northwestern Atlantic economies by the end of the nineteenth century (Mokyr 2009).

That mechanization process transformed the overall structure of employment. Unskilled individuals, each in charge of a very specific task in the chain of production, became the key type of labor in the new industrial system. The Scottish chemist Andrew Ure proclaimed, in his *Philosophy of Manufactures*, published in 1835, that "the constant aim and tendency of every improvement in machinery [is] to supersede human labour altogether, or to diminish its cost, by substituting the industry of women and children for that of men; or that of ordinary labourers for trained artisans" (1835: 23), predicting that "skilled labour (...) will, eventually, be replaced by mere overlookers of machines" (20). Within the American manufacturing industry, for example, the proportion of skilled workers fell from thirty-nine percent in 1850 to twenty-three percent in 1910.

The first industrial revolution came with a decline in the living conditions of workers (Feinstein 1998). The combination of low real wage growth, hard working conditions, overcrowded housing, and bad sanitation conditions resulted in a deterioration of adult mortality rates among British urban and industrial populations after 1800. Live expectancy did not go back to eighteenth-century levels until the 1870s (Szreter and Mooney 1998). British men were shorter on average in 1850 than in 1760 (Floud, Wachter, and Gregory 1990, Komlos 1998). By contrast, profits rose and capital accumulated steadily. The share of national income received by labor fell from around sixty percent in 1800 to forty-five percent by 1845. The share of national income in the hands of capital rose from twenty percent in 1770 to fifty percent one hundred years later. In terms of the overall distribution of individual incomes, inequality peaked in Britain in the first half of the nineteenth century. The income share in the hands of the top quintile of the British population rose from fifty-seven percent in the eighteenth century to sixty-three percent in 1801, declining to fifty-eight percent in 1867.

In such a socially and politically conflictual environment, universal franchise and competitive elections remained out of the question—opposed by both pre-industrial elites and the new industrial capitalists. Political oligarchies only accepted extending the right to vote to well-to-do urban strata holding moderate distributive demands.

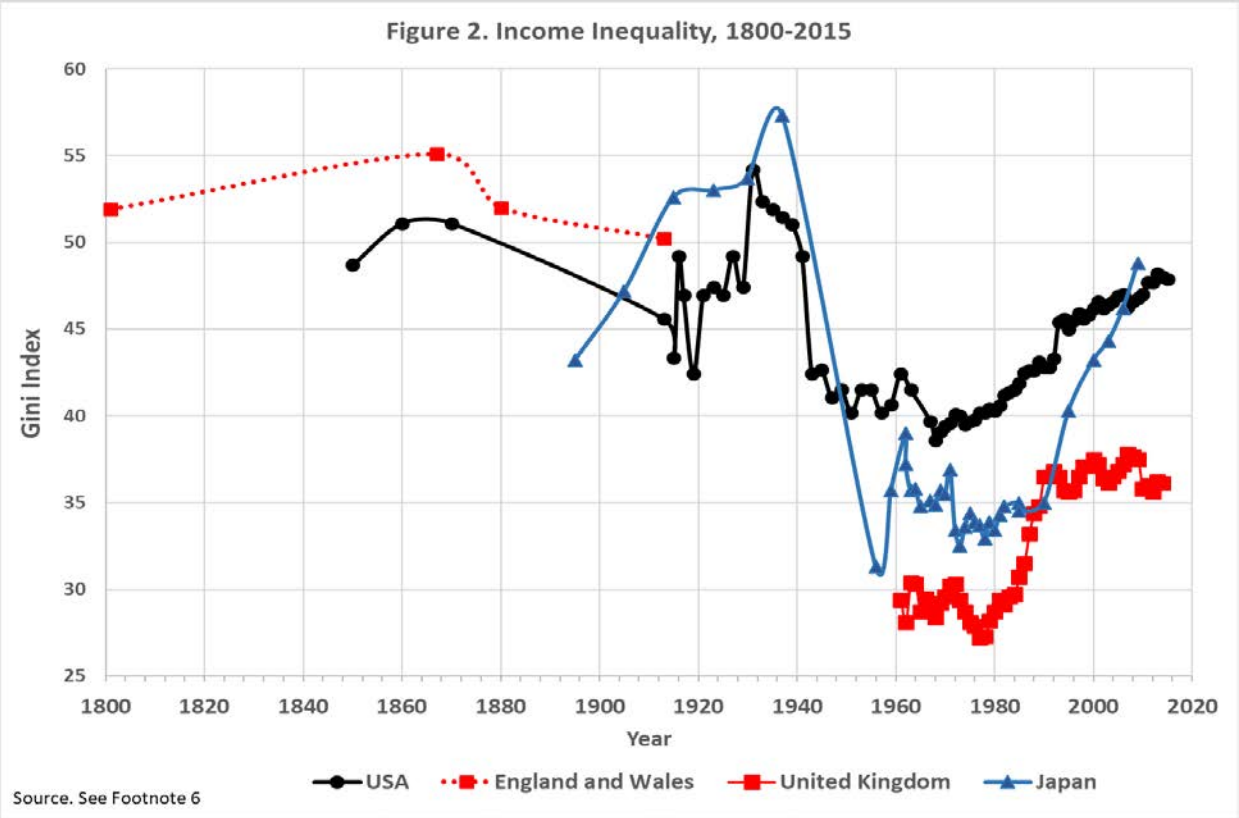
By the end of the nineteenth century, a second industrial revolution, resulting from the use of electricity and electric motors and the introduction of the assembly line and of mass-production techniques, generated large productivity gains. After its invention by Henry Ford and the Detroit

car industry, the assembly line quickly spread to manufacturing sectors as variegated as household appliances, steel production, fruit canning or cow-milking. At around the same time, batch-production or continuous-processing machines, which followed the same principle of mechanization and labor substitution, were applied to cigarette–making, soap-making, photographic material, newspaper printing and glass making, to name a few sectors. Output per hour worked doubled from 1870 to 1913 and again from 1913 to 1950 in the United States. From 1900 onwards, the economy expanded on average at an annual rate of about 2.5 percent in the United States and almost 3 percent in Western Europe—a pace two times faster than in the previous century. Per capita income doubled in the forty years that preceded Second World War. It then doubled again during the Cold War.

The new technologies in place changed the labor market in two fundamental ways. First, the demand for unskilled workers declined sharply. Although exact data on the number of unskilled and skilled workers by industry in the United States before World War Two is sparse, in key industries such as iron and steel, the proportion of “common laborers” fell by half from 1910 to 1931 (Jerome 1934, 63). As shown by Goldin and Katz (1996), twentieth-century factories needed individuals capable of reading the operating instructions of machines as well as installing, repairing, and improving them. Second, the second industrial revolution was associated with the formation of large corporations—arguably due to the fall in communication and transportation costs, the emergence of bigger markets, and the possibility of exploiting large economies of scale. Big corporations required a growing number of white-collar jobs needed to manage their production and distribution tasks. The proportion of white-collar employees in the manufacturing sector rose from 14.8 percent in 1920 to 23.5 percent in 1950 and then to 30.5 percent by 1970 (Katz and Margo 2014).

As semiskilled and medium-skilled workers became central to the process of production—that is, as they became the main type of labor complementary to machines and capital—wages grew across the board, particularly among middle social strata. The American car industry led the way in this regard: its average annual wage rose from $594 in 1904 to $802 in 1914 and exceeded $1,600 by 1924 (Nye 2000, 53). Similar changes took place across the whole US economy. The average earnings of commerce and industry workers tracked productivity growth throughout the whole period, rising by 69 percent between 1913 and 1937 and more than tripling from 1937 to

1975. The number of working households living under conditions of absolute poverty declined precipitously over the first half of the twentieth century. Buying food and clothing, which had absorbed two thirds of the budget of the average American family just after the Civil War, dropped to about a third of its expenditure in 1940. By the 1960s, life expectancy had almost doubled with respect to that of the middle of the nineteenth century. Average height, a valuable proxy of access to food and good health habits, increased by about four inches in Europe over the span of a century (Gordon 2016).



The new economic model of production led too to the equalization of wages and overall distribution of income in twentieth-century industrial economies.[6] Figure 2 shows the evolution of the Gini index over the nineteenth and twentieth centuries for Japan, the United Kingdom and the United States.[7] During the first stage of the Industrial Revolution, the Gini coefficient was

[6] As I show in Boix (2019, 69-81), that process of equalization cannot be explained by either war or unionization, generally hailed as the big equalizers of the twentieth century by the existing literature (Scheve and Stasavage 2009, Piketty 2014).

[7] Sources for the US data: for the nineteenth century, Lindert and Williamson (2016); for 1913–63, Plotnick et al. (1998, fig. 2); after 1963, Milanovic (2016). Sources for the United Kingdom:

high—at around 50—and rising. In both the United Kingdom, which spearheaded the first industrial revolution, and the United States, which followed England closely, it increased until the last third of the nineteenth century. In Japan, a late industrializer, it rose until World War II. Roughly coinciding with the expansion of the second industrial revolution, inequality declined everywhere throughout the middle decades of the twentieth century. Using other measures to approximate the distribution of income tell a similar story. In England and Wales, the fraction of total income in the hands of the top ten percent of the population fell from slightly below fifty percent in 1914 to less than thirty percent in the late 1960s. In most advanced countries, it dropped, from different baselines, to around thirty percent by the 1970s.

Higher salaries and a more equal income distribution pacified the politics of the nineteenth century and early twentieth century. As Daniel Bell wrote in 1955, "in the advanced industrial countries, principally the United States, Britain, and northwestern Europe, where national income has been rising, where mass expectations of an equitable share in that increase are relatively fulfilled, and where social mobility affects ever greater numbers . . . extremist politics have the least hold" (Bell 1988, 31).

Starting in the early 1980s, the economy took a new turn. Whereas labor productivity and median earnings had trended together until 1975, they diverged afterwards. US labor productivity continued to grow at a similar rate as in the postwar period, doubling between 1975 and 2016. By contrast, median earnings remained flat throughout the whole period. In Japan and Europe, median salaries performed slightly better, but they still rose much less than the overall economy. While wages for those in the bottom quintile of the earnings distribution dropped in real terms in the United States and the United Kingdom and barely increased in the other advanced economies, earnings grew by almost fifty percent for those holding bachelor degrees and doubled for individuals with postgraduate education in the United States. Less dramatic but similar wage dynamics took place place in the majority of advanced industrial economies. By 2010, the earnings of an individual in the ninetieth percentile of the wage distribution were three to five times greater than the earnings of an individual at the tenth percentile of the same

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up to 1913, Lindert and Williamson (1983); after 1960, Milanovic (2016). Sources for Japan: before Second World War, Minami (2008); after the Second World War, United Nations University-WIDER (2015).

distribution.

As with previous historical shifts in the distribution of income, the changes of the last decades responded to the introduction of new technologies, in this case information technologies (ranging from the personal computer to the internet) that reshaped the labor market. The acceleration of automation—driven by fast microprocessors—made a substantial fraction of qualified blue-collar workers redundant. The number of US factory workers shrunk from a postwar peak of nearly 19.5 million in 1979 to about 12 million in 2014. In Europe, manufacturing jobs fell from over one-fifth of all employment in 1970 to less than one-tenth in the middle of the 2010s. Automation extended to white-collar occupations—replacing an increasing number of the routine tasks that defined those jobs. Whereas routine occupations, that is, jobs composed of tasks that imply following a well-defined number of procedures, employed almost forty-five percent of the working-age population in the United States until the mid-1980s, they employed thirty-one percent in 2014 (Cortes, Jaimovisch, and Siu 2017). By contrast, the complementarity of IT with high skilled workers raised the proportion of managerial and professional jobs from twenty-eight percent of all civilian employment in 1980 to thirty-nine percent in 2010 (Katz and Margo 2014).

Jointly with a sharp drop in transportation costs, the information and communication revolution globalized trade at a truly worldwide scale after the late 1970s. Globalization then intensified the direct employment effects triggered by the invention of the personal computer. An increasing number of American, European, and Japanese companies—from toy-and other consumer-goods makers in the 1970s to electronics companies in the 2000s—unbundled their production operations across the world, moving low-wage jobs to developing countries, in the process eroding the job status and wages of blue-collar industrial workers and the administrative middle class in advanced industrial economies. Recent estimates attribute about one-third of all employment losses in the last few decades to trade and the relocation of production abroad.[8]

Those changes came hand in hand with the gradual erosion of postwar political consensus, initially at the citizen level, in the form of both growing voter alienation and lower turnout, and

[8] In addition to technological change and globalization, economic deregulation may have contributed to the transformation of labor markets and the rise of income inequality. Income distribution widened the most in highly deregulated market economies (cf. Figure 2). In those European countries where earnings inequality remained unchanged, the cost was, however, tepid private employment growth in net terms.

later on at the elite level too. Despite the social and economic transformations of the last decades, mainstream political forces, from conservatives and Christian democrats to social democratic parties, hardly changed their public discourse and general commitment to globalization and market-led change (Boix 2019, 2020). Perhaps unsurprisingly, trust in political elites have fallen to a historical low. Almost eighty percent of Americans thought that politicians cared about their opinions in the late 1950s. Only twenty percent do now. In France, Germany and the United Kingdom, the proportion is even lower, at around ten to fifteen percent. In Europe, electoral abstention nearly doubled to encompass one third of the electorate in the late 2000s. Throughout the postwar era and until 1970, 70 percent of all electors in Western Europe voted for mainstream parties. By 2010, only 45 percent did. Then, following the great recession of 2008, populist parties became an important part of the political landscape. Close to one quarter of European voters are currently casting their ballots for far right and far left parties. In the USA, both the Republican and the Democratic parties house a powerful, often dominant populist faction. Political polarization has risen to levels unseen since at least the 1930s – spurred by Silicon Valley capitalism and reinforced, particularly in the United States, by growing disagreements on cultural and social policy matters.[9]

Still, despite a growing literature on democratic backsliding (Bermeo 2016, Levitsky and Ziblatt 2019), there is little evidence of democratic reversals in developed countries (Bartels 2020, Little and Meng 2022, Treisman 2022). To explain why, we need to consider the stabilization role played by the prosperity generated by capitalism.

Economic Prosperity and Democratic Resilience

The diffusion of industrial capitalism has created extraordinary wealth. In 1820, about ninety-five per cent of the world population earned less than the equivalent of two dollars (in $ of 1990)

[9] Notice that part of the research community does not link the political malaise of the last decades to technological and economic change. For a line of research, the former comes from a spreading "cultural discomfort" generated by a set of factors that range from immigration to the dissolution of communitarian and moral ties produced by social media (and not directly related to any changes in the production process) (Margalit et al. 2022). For a different line of argument, it derives from trade competition affecting uncompetitive economic factors or sectors in North America and Europe (Rogowski 1989). Globalization can be traced back, however, to the fall in information and transportation costs due to the technological innovations of the last decades.

per day. More than four fifths had to survive with just one dollar per day. In Western Europe, more than half of the population had a per capita income similar (in real terms) to today's poorest countries in Africa. By contrast, today's average income per person (in real terms) is about ten to fifteen times larger than one century and a half ago in North America, Europe, and Japan, and over ninety percent of the population have an income equal to or higher than the income of an individual in the ninety-fifth percentile of the income distribution back in the nineteenth century. In addition, most of them receive a wide range of publicly provided services, from free schooling to a public health system and pensions, which tend to benefit the poorest strata of society.

Such level of economic prosperity has raised everyone's incentives to subject themselves to democratic elections, that is, to the possibility of losing power, while accepting the basic rules of a capitalist economy, for at least two reasons.

First, the generation of economic growth through market mechanisms (in absolute terms but also in relative terms, that is, in comparison to non-market economies) has persuaded voters (especially those with lower incomes and therefore with a higher incentive to demand higher wages or to support high tax and spending levels to modify market-based outcomes) to moderate their redistributive demands—precisely in exchange for economic growth. In turn, their moderation or self-restraint, when conveyed in a credible manner, has made it easier for capital owners and high-income individuals to drop their opposition to democracy. We can interpret the European postwar consensus (and even the political deals that undergird the democratization of Latin America in the 1980s and Eastern Europe in the 1990s) as an exercise on political restraint that facilitated the consolidation of democratic capitalism. Although the industrial structure of most European countries in the late 1940s was not that different from the one in the 1920s, a pact (formalized through corporatist institutions in most small countries) between capital and labor pacified western Europe, in the process contributing partly to unleashing a period of growth that, through some kind of virtuous cycle, reinforced social support for democratic capitalism.[10]

Second, economic growth attenuates the negative effects of democracy among high-income

[10] For a formal treatment of the conditions under which political self-restraint increases the chances of democratic capitalism, see Przeworski and Wallerstein (1982) and Boix (2003: 130-139).

individuals and therefore their resistance to elections, for the following reason. If the marginal utility of additional income declines (Layard et al. 2008), the disutility of losing elections and bearing high taxes falls among high-income individuals (who should be, in principle, the most affected by the decisions of the majority to redistribute) as their per capita income increases. At some point, blocking democracy will generate more disutility than the welfare losses resulting from majority voting.[11]

Checking the Historical Evidence

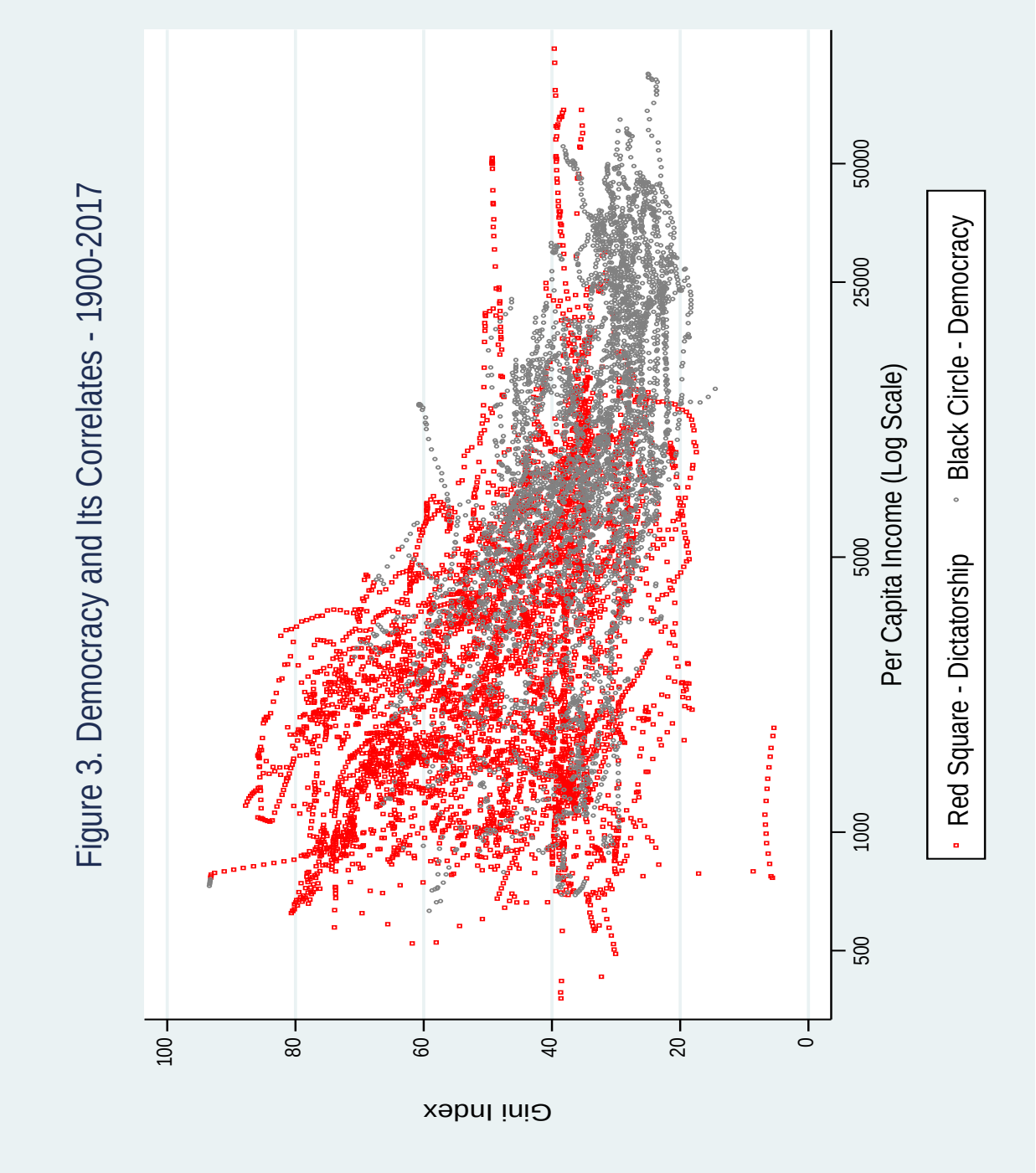
If our previous discussion is right, an unequal society should hamper the introduction of democracy. Nonetheless, the potential undemocratic effects of economic inequality will be mediated by economic growth. At low and intermediate levels of development, inequality will exacerbate distributive conflicts to the point of making democracy highly unlikely. Social and political elites will have a strong incentive to protect their economic assets and social status by blocking democracy. As growth takes place, however, the tolerance of all parties toward democracy will increase – by both attenuating the redistributive claims of the least advantaged and minimizing the utility losses of high earners.

Figure 3 plots data of per capita income and Gini coefficients across the world from 1900 to 2017. Each point represents the value for a country-year. In addition, Figure 3 marks with a red square those countries that were authoritarian and with a gray circle those that were democratic in each year. The measure of development is a country's real gross domestic product per capita (in 2011 USD) based on the Maddison project database, revision 2020 (Maddison 2010; Bolt and van Zanden 2020). The Gini coefficients come from Beramendi et al. (2023).[12] The political regime classification follows the Boix et al. (2013) criteria, version 3.0 (updated to cover years until 2019).

[11] See Beramendi et al. (2023) for a formal discussion of this mechanism.

[12] The data used in the construction of our total inequality measure are country time-series on (i) rural inequality as defined by Ansell and Samuels (2014), (ii) disposable household income inequality from the SWIID database (Solt 2016), and (iii) the share of the labor force employed in agriculture (Wingender 2014). Missing observations time-series observations are extrapolated backwardly using a flexible semiparametric model (with model terms tailored to each specific country).

Figure 3 shows that development and inequality are negatively correlated. An increment of $1,000 is associated with a fall of 0.6 points in the Gini index. The correlation is statistically significant. In addition, cross-country variance in the distribution of income declines also with development. Whereas Gini values range from 25 to above 80 percent among poor countries, they fluctuate between 20 and 45 percent in high-income nations.



In line with the previous discussion, democratic regimes are more frequent both among more equal economies (even for relative low levels of per capita income) and developed countries (where authoritarian regimes are exceptional and mainly correspond to oil-exporting economies). Both economic development and economic equality are statistically significant and correlated with the presence of democracy in estimation models including fixed country and year effects. Moreover, economic development attenuates the negative effect of economic inequality.

3. Is This Time Different?

Which could be the consequences of an acceleration and intensification of the current process of automation (brought about by artificial intelligence) for democratic capitalism? Will we go back to the stark incompatibility between democracy and capitalism that prevailed during the nineteenth century? Or are there ways to reconcile both of them as in the past decades? To explore these questions, I first consider the probable effects of AI on labor and capital, and then reflect on the broader political implications of those changes.

AI and labor demand and supply

The effect of AI on labor can take the form of two main scenarios. In the first one, AI simply intensifies the skilled-biased nature of current technological changes. In a second one, AI perfectly substitutes labor.

Consider the partial-substitution scenario first. In a widely cited paper, Frey and Osborne (2017) correlate vulnerability to computerization with the level of skills – extremely high "for low-skill and low-wage jobs in the near future" and much less so for "high-skill and high-wage occupations" (267).[13] With demand for unskilled and semiskilled labor declining, their wages will fall too. The result should be, in principle, more inequality. Nevertheless, the final effects of

[13] According to the World Development Report of 2016, two thirds of jobs in developing countries and between 50 and 60 percent in Europe and the United States could be automated over the coming decades (World Bank 2016: 126). Employing different criteria may lead, however, to sharply different results – Arntz, Gregory and Zierahn (2016) estimate that only 9 percent of jobs in OECD countries are highly automatable.

AI on wages and income will depend on the behavior of labor supply. If the labor force can be upskilled, there will be a re-matching of jobs and workers (provided enough AI-complementary jobs are available) and relative equality. Otherwise, a fraction of the workforce will remain unemployed or employed but lowly paid. With labor supply not matching labor demand, inequality will persist over time.[14]

Consider now the second scenario. Although machines are far from reproducing the manual and cognitive tasks performed by humans in many tasks, in recent surveys AI experts give a 50 percent chance to the possibility that humans will be technologically redundant between 2040 and the early 2060s (cf. Korinek and Juelfs 2022).[15] Here, the distributional split will not take place between capitalist and high-skilled individuals on one side and the rest of labor on the other but rather between capital and labor.

Most discussions about the impact of AI on labor refer to advanced countries. Nonetheless, its consequences are likely to be stronger in emerging economies. Globalization 2.0, which coincided with and in fact was fostered by the informational and computational revolution that began in the 1980s, facilitated the industrialization of a subset of developing countries. Multinational corporations unbundled their production structure to exploit the specific comparative advantage of each country across the world—moving or subcontracting tasks performed by less skilled labor to the developing world. Nonetheless, if AI replaces all low-

[14] As I discussed in Boix (2019), consider a world where the final skills of any person are a function of two factors: the individual's natural talents and some know-how acquired through education. Natural talents include the genetic endowment at birth and the intelligence nurtured by a particular family environment. The educational know-how is, instead, the result of an investment made through formal institutions. Assume that the distribution of natural talents among the population is unequal and that formal education reduces the deficiencies in the initial endowment of talents and therefore the "natural" inequalities in the population imperfectly. Because the job qualifications needed during the first and second industrial capitalisms (prevalent in the nineteenth and twentieth century) were not demanding (most jobs required low to medium skills), the remedial effect of education (even when the investment on human capital was low to moderate) was successful. If the skills needed for future jobs are very high, the initial distribution of natural talents may be more relevant in determining final wages and incomes.

[15] For a much more skeptical position, see Armstrong and Sotala (2015), who identified up to ninety-five such forecasts published between 1950 and 2012 and show that the year they predict ranges from 1970 to 2107, with most of those studies dating the advent of AI between fifteen and twenty years from the time they were published.

skilled labor, fully robotized plants will be relocated from "periphery" countries back to the consumer markets of advanced economies—to minimize distribution and transportation costs. Unless newly industrialized economies move up in the production ladder from low-value-added to high-value-added activities, they will be unable to catch up with advanced economies and may even experience some economic backsliding in absolute terms. With full capital-labor substitution, firms will have an even stronger incentive to relocate their production close to their consumers—probably exacerbating the negative economic shock to emerging economies.

AI and capital

In principle, automation should benefit capital owners—both for the partial-substitution scenario where particular forms of labor are more complementary to AI than others and for the full-substitution scenario where substituting machines for human work is economically efficient. A growing body of work point to a fall in the labor share of income since the 1980s (Karabarbounis and Neiman 2014; Grossmand and Oberfield 2022), particularly in economic sectors with high R&D intensity (Guellec and Paunov 2017).

How this may translate into the internal concentration of assets ownership—and therefore on the internal composition of the returns to capital, will depend on two factors: barriers to innovation and information costs. If the barriers to AI innovation and implementation are high, capital should become concentrated in a limited number of owners.[16] AI may lower, however, the costs of producing machines (i.e. of capital investment) directly—to the point of enabling everybody to set up some heavily automatized or robotized shop. Mobile phones have reduced the costs of production and distribution of African farmers. Independent truck drivers employ digital platforms to coordinate more efficiently the transportation and distribution of goods. Social media have facilitated the emergence of a decentralized rental market between tourists and private homeowners, competing directly with hotel chains.

As for the information effects, AI technologies may lead to larger firms by minimizing the costs of both collecting information about (present and future) preferences of buyers/consumers and integrating production chains. Currently, for example, Google has over 90 percent of the search

[16] For studies reporting a trend toward higher sectoral concentration, at least partially related to information technologies, see Babina et al (2020) and Autor et al. (2020).

engine market, Facebook controls almost 70 percent of social networks, and three top firms concentrate almost one third of all the US e-commerce. On the other hand, AI may push down the costs of monitoring production across tasks, weakening the incentives to integrate all jobs in a single plant or under a single firm, and fostering subcontracting.

AI and democratic capitalism

In light of our discussion of the economic consequences of AI, its effects on democracy are likely double-sided. By widening the gap between capital owners and labor or, at least, between capital owners and high-skilled individuals, on the one hand, and the rest of labor, on the other, it should affect negatively everyone's incentives to have democracy. However, its positive effect on income growth, via productivity gains and (in advanced economies) a potential reshoring of manufacturing, should reduce the political impact of more inequality.

Consider first AI's potentially negative consequences. Throughout the twentieth century, advanced democracies responded to the political and social tensions generated by industrial capitalism with policies that, while having a redistributive component, benefited businesses too. Public spending on health and education improved the living standards of citizens directly and, perhaps more important, indirectly: it allow them to take advantage of social mobility opportunities offered by a booming economy. In addition, it generated the kind of well-trained labor force that second-industrial-revolution employers needed to be fully productive. In short, in the world of Detroit capitalism, welfare states were complementary to most or all firms. By contrast, if AI firms only hire a fraction of the labor force, they may resist supporting universal spending and investment programs that are of little use to them. The past complementarity of democratic-base welfare states and capitalism may gave way to more contentious forms of politics, where voters with no access to well-paid AI jobs may push for an intensification of redistributive policies (for example, in the form of a very extensive universal basic income) while the winners of automation may resist the latter.

AI may have a second negative effect on democratic governance. It may reinforce the position and resources of its beneficiaries to such an extent that, even if they are an electoral minority, they may have the power and influence to block both democracy and redistribution. The growing concentration of wealth that has taken place in the last few decades does not bode well for the future. During the last decades, campaign contributions in US federal elections have gradually

become concentrated among the super-wealthy. The top 0.01 percent of households (in the income distribution) donated between 10 and 15 percent of all campaign contributions until the early 1990s. In 2012, the proportion was 40 percent (Bonica et al. 2103).

AI should have positive effects on democracy too. First, and as discussed earlier in the paper, a richer economy implies having more resources available to minimize the disruptive effects of technological change. Second, given the declining marginal value of additional income among high-income voters, the extra wealth due to AI may make redistributive policies (to compensate any losers) less contentious than in the past.

Which of these effects may prevail is at this point unclear. Still, in developed countries the likelihood of a democratic breakdown seems low due for two reasons. On the one hand, a growing economy has historically played a stabilizing role on democratic institutions. On the other hand, well-performing democracies tend to engage in what we want to call "re-equilibrating" policy dynamics in response to economic and political shocks. In that representative regimes where elections hold policy-makers accountable to voters, any new political and economic challenges harming the electorate (or, at least, the decisive voter) will incentivize politicians to address them choosing policy solutions that moderate the effects of technological change. Those policy responses can range from deploying new programs to help workers adapt to technological change (through, for example, new educational investments) to passing new regulations blocking technological innovation. If these policy interventions are successful, making the labor force complementary to ITs and AI and reducing any initial income disparities due to those technological changes, democracy should remain in place.

By contrast, the introduction of AI may prove more disruptive in emerging economies. First, if it results in some economic de-growth, the incentives to combine democracy and capitalism will decrease. Second, because authoritarian regimes are more common in the developing world, the process of policy re-equilibration through which democratic procedures foster, via elections, the adoption of measures to sustain a pro-democracy majority, will be less likely to take place.

4. Concluding Remarks: Mapping Policy Interventions

We know little about the future. On the one hand, an increasing number of experts forecast

technological developments whose consequences prefigure a much more contentious relationship between democracy and capitalism than the one that existed during the golden age of democratic capitalism. On the other hand, even if what we experience today are the pains associated with the birth of a new political and economic world, we do not know much about the timing, pace, and final consequences of this technological transformation. The future may be waiting for us ten or perhaps one hundred years from now. The rate of transformation may be fast and unwieldy or slow enough to allow us to adjust in a leisurely way. Robotization may be universal in its reach or limited to a few sectors. Still, it seems advisable to suggest three main types of interventions to respond to automation (to be modulated as a function of the extent of change).

First, reinforcing educational investments (including vocational training) should facilitate the transition of the workforce from routine jobs, which are at the highest risk of automation, to nonroutine occupations or, at least, jobs that are complementary to AI tasks. If the process of capital-labor substitution speeds up to the point of generating some persistent unemployment, policy-makers may consider introducing a "universal basic capital" (UBC); that is, granting each person some fixed capital at birth. To incentivize prudential behavior, its recipients would have free disposition only over its returns (and only after becoming legally adult). That solution would combine the supporting component of a universal basic income (UBI) with an individual incentive to manage it actively; that is, to put some effort instead of consuming an income flow (like the one coming from an UBI) passively. The UBC could be funded through a tax on robots.

Second, policy-makers should strengthen a regulatory and institutional system that pre-empts the formation of a closed elite. In the economic sphere, this calls for an active antritrust policy to maintain competitive markets. In the political sphere, it requires several reforms such as limiting campaign donations by corporations, distributing electoral funds along the lines of the Ackerman-Ayres proposal,[17] disclosing the (ownership and marketing) relations between media and large firms, and so on.

[17] See Ackerman and Ayres (2008). The Ackerman and Ayres' system consists in giving to each citizen a fixed number of dollars to be spent in the electoral campaign in the way (that is, on the candidate) everyone prefers. That proposal is complemented with the decision to establish a blind trust in which all private donations are put – to be transferred to the candidate or parties chosen by the donor. As with the secret ballot, the secrecy of donations should reduce the lobbying by well-identified donors.

Third, states should consider a generous system of migration between the North and the South. If AI harms less developed economies (through the process of automation and reshoring) more than advanced economies, and given how difficult it seems to reform political and legal institutions in the South, migration may become the main way for people in the South to escape poverty or, in other words, the only redistributive tool in our hands to equalize life chances across the world. Given the political backlash such open-border system may create, migration should be probably gradual. Still, because of the current demographic trends in advanced economies (pointing to negative natural population growth in the near future), immigration from the South seems advisable from an economic point of view—including the goal of sustaining welfare states.

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