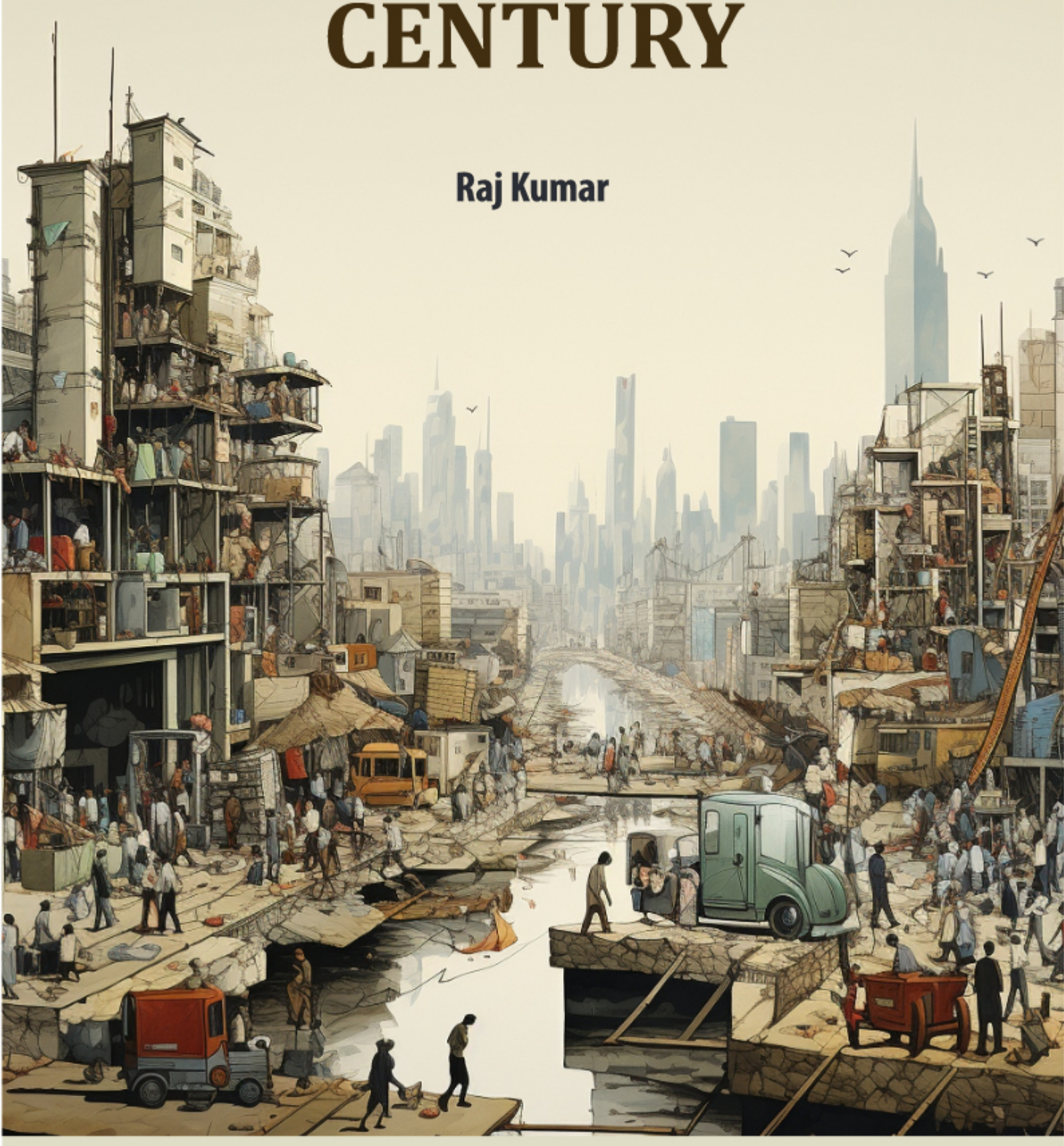
CAPITAL IN THE TWENTY-FIRST CENTURY

Raj Kumar



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CHAPTER 1

MARX: THE PRINCIPLE OF INFINITE ACCUMULATION

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ABSTRACT:
Karl Marx, a prominent 19th-century philosopher, economist, and sociologist, is renowned for his groundbreaking analysis of capitalism. One of Marx's central concepts is the "Principle of Infinite Accumulation," which forms a crucial component of his critique of the capitalist mode of production. This abstract explores Marx's perspective on this principle, delving into its theoretical underpinnings and implications for understanding the dynamics of capitalist societies. Marx contends that capitalism inherently relies on the ceaseless accumulation of capital as its driving force. The principle of infinite accumulation posits that, in the pursuit of profit, capitalists are compelled to continuously expand production, invest in new technologies, and exploit labor to enhance productivity. Marx argues that this perpetual quest for accumulation creates a systemic tension within capitalism, leading to various social and economic contradictions. The social consequences of the principle of infinite accumulation, including the alienation of labor, the commodification of human relationships, and the widening wealth gap between the bourgeoisie and the proletariat.

KEYWORDS:

Capitalist System, Class Struggle, Commodities, Critique Political Economy, Historical Materialism.

INTRODUCTION

One of the most contentious and often debated topics in today's world is the distribution of wealth. However, how much do we really know about its long-term evolution? As Karl Marx thought in the eighteenth century, do the mechanics of private capital accumulation ultimately lead to the concentration of wealth in increasingly fewer hands? Or, as Simon Kuznets hypothesized in the 20th century, do the counteracting forces of growth, competition, and technical advancement result in less inequality and more harmony among the classes in later phases of development? What actual information do we have about the changes in wealth and income since the eighteenth century, and what implications does this knowledge have for the current century? I try to provide answers to these questions in this. Let me state right once that the responses provided here are neither flawless nor comprehensive. However, they are founded on a novel theoretical framework that allows for a better understanding of the underlying processes and much more comprehensive historical and comparative data than were accessible to earlier researchersdata spanning three centuries and more than twenty nations. The deep structures of capital and inequality have not changed, at least not as much as was anticipated in the hopeful years after World War II, despite the fact that modern economic growth and the spread of knowledge have allowed us to avoid the Marxist apocalypse. Capitalism automatically creates arbitrary and unsustainable inequalities that fundamentally undermine the meritocratic values that democratic societies are built upon. This was the case in the nineteenth century and is likely to happen again in the twenty-first. However, there are methods for democracy to retake control over capitalism, maintain economic openness, and prevent protectionist and nationalist measuresall while guaranteeing

that the public interest supersedes corporate interests. Article is the general direction of the policy proposals I make later in article. They are founded on historical teachings, of which the rest of this text is basically a story[1], [2].

Discussion without Evidence

There has long been a dearth of evidence and a surplus of bias in the intellectual and political discourse around the distribution of wealth. To be sure, even in the absence of any theoretical framework or statistical research, it would be a mistake to undervalue the significance of the common sense understanding that people develop about the wealth and income levels of today. Literature and film, particularly novels from the nineteenth century, are rich in detail on the relative income and living standards of various social classes. Of particular interest is the profound structure of inequality, its justification, and its effects on the lives of individuals. Indeed, the distribution of wealth in Britain and France between 1790 and 1830 is strikingly shown in the books of Jane Austen and Honoré de Balzac. The wealth hierarchy in each of their various civilizations was well-known to the writers. They understood the many nuances of money and its inevitable effects on men's and women's lives, including their approaches to marriage and their ambitions and disappointments as individuals. No statistical or theoretical investigation can match the verisimilitude and emotive force with which they and other authors depicted the effects of inequality[3], [4].

Indeed, economists, sociologists, historians, and philosophers should not be the only ones to study the distribution of wealth; it is just too significant a topic. Everyone is interested in it, which is a positive thing. The physical and tangible manifestation of inequality is evident to the unaided eye, leading to politically charged opinions that are both incisive and paradoxical. Individuals with distinct perspectives, such as peasants and nobles, laborers and factory owners, waiters and bankers, observe significant aspects of other people's lives and the power dynamics between social groups. These insights influence their perception of what is and is not just. Therefore, inequality will always have a fundamentally subjective and psychological component, which leads to political conflict that no amount of so-called scientific investigation can resolve. A republic of experts will never replace democracy, and that is a very good thing. However, the distribution issue also merits a thorough and careful investigation. It is conceivable to see everything and everything opposite in the absence of clearly defined sources, techniques, and ideas. There are many who maintain that the world is inherently unfair and that inequality is always rising. Some people think that harmony develops on its own or that inequality is naturally declining, and that nothing should be done that may jeopardize this harmonious balance. There is a place for inquiry that is, if not entirely scientific, at least rigorous and systematic given this deaf conversation, where each group uses the other's lethargy to justify its own intellectual indolence. The violent political confrontation that inequality inevitably sparks cannot be resolved by expert analysis. Research in social science is and will always be preliminary and imperfect. It makes no claims to turn history, sociology, or economics into precise sciences. However, it may educate democratic discourse and direct attention to the appropriate questions by methodically looking for facts and patterns and coolly evaluating the economic, social, and political systems that could explain them. Redefinition of the debate's parameters, exposure of certain false or preconceived beliefs, and ongoing critical examination of all viewpoints may all be beneficial. This, in my opinion, is the role that intellectualsincluding social scientistsshould play as citizens just like everyone else, but with the advantage of having more free time to further their education.

But it cannot be denied that for a very long time, social science study on the distribution of wealth was predicated on a very small number of solidly verified facts as well as a large

range of purely speculative speculations. I'd want to provide a brief historical review of earlier thought on these concerns before getting into more depth about the materials I sought to gather in order to write this.

Young and Malthus and the French Revolution

Distribution was already one of the main concerns when classical political economics emerged in England and France in the late eighteenth and early nineteenth centuries. Everyone saw that profound changes were occurring, sparked by long-term population growth—a phenomena that had not been previously recognized—along with a rural exodus and the beginning of the Indian Revolution. Without a doubt, overpopulation posed the greatest danger, according to Thomas Malthus, who published his Essay on the Principle of Population in 1798. Despite the paucity of his materials, he managed to make the most use of them. The travel journal kept by English agronomic Arthur Young, who made extensive trips around France in 1787–1788 on the eve of the Revolution, from Calais to the Pyrenees and from Brittany to Franche-Comté, had one especially significant effect. Young described the rural poverty of France in his writings. His evocative piece was not entirely factual. Since France had the largest population in Europe at the time, it was a perfect area to observe. In 1700, the kingdom had 20 million people living in it, compared to just 8 million in Great Britain. During the 18th century, the French population grew gradually from the end of Louis XIV's reign until Louis XVI's death, reaching about 30 million by 1780. There is every reason to think that in the decades before the population boom of 1789, stagnating agricultural earnings and rising land rents were caused in part by this very fast population expansion. The French Revolution was not only caused by this demographic change, but it was undoubtedly a factor in the aristocracy's and the ruling class's increasing unpopularity[5], [6].

However, nationalist bias and false comparisons are also evident in Young's 1792 report. The renowned agronomist detested the manners of the ladies who served on him and thought the inns where he stayed were quite uncomfortable. He thought he could draw general conclusions from many of his observations, despite the fact that many of them were trivial and anecdotal. His biggest concern was that the widespread poverty he saw might spark political unrest. Specifically, he was persuaded that the only political system that could support peaceful and harmonious growth under the leadership of competent individuals was the English one, which included distinct chambers of Parliament for aristocrats and commoners and veto power for the nobles. When France chose in 1789–1790 to enable both aristocrats and commoners to sit in a single legislative assembly, he was certain that the country was doomed. It is hardly hyperbole to suggest that his dread of a French revolution dominated his whole narrative. Politics is always a factor when discussing wealth distribution, and it is hard to avoid the prejudices and interests that come with modern class today. Even more extreme than Young's findings were reached by Reverend Malthus when he wrote his well-known Essay in 1798.

He shared his compatriot's fear of the new political ideas coming out of France, so in an attempt to convince himself that there wouldn't be a similar revolution in Great Britain, he made the case that all welfare assistance to the poor should be immediately stopped and that the poor's reproduction should be closely examined in order to prevent the world from falling into anarchy and misery due to overpopulation. Without an understanding of how dread engulfed a large portion of the European elite in the 1790s, it is hard to comprehend Malthus's exaggeratedly pessimistic forecasts.

The Principle of Scarcity by Ricardo

Looking back, it is clear that these predictions of impending disaster are easily mocked. It's crucial to remember, however, that the social and economic changes that occurred in the late eighteenth and early nineteenth centuries were, for those who saw them, really remarkable, if not terrifying. In fact, the majority of modern observers—not just Malthus and Young—shared gloomy or even cataclysmic perspectives of how society's class structure and distribution of wealth would ultimately develop over time. This was especially true of two of the most important economists of the nineteenth century, David Ricardo and Karl Marx, who both felt that a small social group—industrial capitalists for Marx, and landowners for Ricardo—would eventually claim a steadily rising share of output and income.

When Ricardo wrote Principles of Political Economy and Taxation in 1817, the long-term trend of land prices and land rents was his main worry. Similar to Malthus, he had almost no real data. Despite this, he was well-versed in the capitalism of the day. More than Malthus, Young, or Smith, he seems to have had less political preconceptions, having been raised in a Portuguese-born Jewish financial family. Though he advanced the case, he was influenced by the Malthusian paradigm. Above all, the following logical conundrum piqued his curiosity. When production and population start to increase gradually, land tends to become more and scarcer in comparison to other commodities. The price of land will thus likely continue to grow, as will the amount that landlords are paid, according to the law of supply and demand. As a result, the landowners will get an increasing portion of the national revenue while the remaining portion goes down, disturbing the social balance. For Ricardo, levying a land rent tax that increases gradually was the only reasonable and politically acceptable solution.

This grim forecast proved to be inaccurate: land rents did stay high for a while, but as agriculture's part of the national revenue shrank, farmland's worth steadily reduced in relation to other types of wealth. When Ricardo wrote in the 1810s, he had no way of knowing how important industrial expansion and scientific advancement would be in the years to come. He had the same view as Young and Malthus that humanity will never really be emancipated from the need to eat. Despite this, his understanding of land prices is intriguing since, according to the "scarcity principle," certain values may increase to very high levels over many decades. This may be sufficient to topple whole societies. In the modern global economy, the pricing system is crucial to the coordination of millions, if not billions, of people's actions. The pricing system's ignorance of boundaries and morals is the root of the issue.

Ignoring the significance of the scarcity principle in comprehending the worldwide distribution of wealth in the twenty-first century would be a grave error. It is sufficient to substitute the price of oil, or alternatively, the price of urban real estate in major global cities, for the price of farmland in Ricardo's model to persuade oneself of this. Economic, social, and political disequilibria of significant magnitude, both within and between countries, result from extrapolating the trend observed between 1970 and 2010 to the years 2010–2050 or 2010–2100 in both cases. These disequilibria invariably evoke the Ricardian apocalypse.

Indeed, the law of supply and demand is a very basic economic mechanism that, in theory, should bring the process back to equilibrium. Any product whose price is too high and whose supply is inadequate should see a fall in demand, which will lower the commodity's price. To put it another way, folks should migrate to the country or start riding bicycles if real estate and energy costs increase. It doesn't matter if these changes are unpleasant or difficult; they could also take decades, during which time oil well and landlord owners could build up such substantial claims against the rest of society that they could eventually acquire ownership of

everything, including bicycles and rural real estate. The worst is never certain to happen, as usual. It is much too early to alert readers to the possibility that they may be renting from the Qatari emir by 2050. In due time, after giving it some thought, I will respond with a more thoughtful—if not too comforting—answer. For the time being, however, it is crucial to realize that supply and demand dynamics do not completely exclude the chance of a significant and long-lasting divergence in the distribution of wealth associated with sharp fluctuations in certain relative prices. This is how Ricardo's scarcity concept is fundamentally implied. However, nothing compels us to take a chance.

DISCUSSION

The industrial proletariat's suffering was the most noticeable aspect of the day. Workers flocked into urban slums despite, or possibly because of, the economy's expansion as well as the massive rural migration brought on by rising agricultural productivity and population increase. The pay was pitiful and the working day was lengthy. There was a new urban suffering that was more obvious, striking, and extreme in some ways than the rural misery of the Old Regime. No one wrote Germinal, Oliver Twist, or Les Misérables out of their dreams, and rules prohibiting minors under the age of eight or ten from working in mines or factories were created by them. In reality, what we know about the past suggests that the buying power of salaries did not significantly increase until the latter part of the nineteenth century, if not the latter third of it. Workers' salaries stagnated at very low levels from the first to the sixth decade of the nineteenth century, coming in close to or even below the levels of the eighteenth and earlier centuries. This protracted period of wage stagnation, which we see in both France and Britain, is particularly notable since economic development was picking up speed throughout this time. In both nations, the capital part of national income expanded significantly in the first half of the nineteenth century, as assessed from the imprecise data already accessible. This capital share included industrial earnings, land rentals, and building rents. In the latter decades of the nineteenth century, it would somewhat decline as salaries somewhat caught up with growth. Nevertheless, the information we have gathered does not indicate a fundamental decline in inequality before World War I. The years 1870–1914 are best described as a stability of inequality at an exceptionally high level and, in some ways, as an infinite cycle of inequality, characterized in particular by rising wealth concentration. Without the significant political and economic upheavals brought on by the war, it is very impossible to predict where this trajectory would have ended. We may now consider such shocks as the only factors strong enough to decrease inequality since the Industrial Revolution, with the help of historical study and a little perspective. In any event, the 1840s saw a boom in capital and an increase in industrial profits at the expense of stagnating worker wages. Despite the lack of aggregate national data back then, this was evident to everybody. The first socialist and communist movements sprang from this work. The central argument was straightforward: If the state of the masses remained unchanged after fifty years of industrial expansion, and the only thing legislators could do was forbid children under the age of eight from working in factories, then what good was it to have all these technological advancements, labor, and population movements? It was apparent that the current political and economic structure was insolvent. People questioned what could be said about its long-term development as a result[7], [8].

Marx gave himself the job of doing this. He released The Communist Manifesto in 1848, on the cusp of the "spring of nations." It was a brief, scathing document that opened with the well-known line, "A specter is haunting Europe—the specter of communism." "The development of Modern Industry, therefore, cuts from under its feet the very foundation on which the bourgeoisie produces and appropriates products," reads the text's equally well-

known revolution prediction. Therefore, the bourgeoisie's primary output is its own gravediggers. Both its demise and the proletariat's triumph are inevitable. Marx spent the next twenty years working on the extensive book that would support this conclusion and provide the first empirical account of capitalism and its demise. The first volume of Capital was released in 1867, but Marx passed away in 1883 before finishing the second and third volumes. As a result, this book would remain incomplete. After stitching together a text from the sometimes cryptic fragments of a manuscript Marx had left behind, his buddy Engels released them posthumously.

Marx, like Ricardo, grounded his writings on an examination of the logic that runs against to the capitalist system internally. Thus, he made an effort to set himself apart from bourgeois economists as well as utopian socialists and Proudhonians, who, in Marx's opinion, were only satisfied to criticize the suffering of the working class without offering a really scientific explanation of the economic mechanisms behind it. For a more in-depth examination of the workings of capitalism in a world where capital was mainly industrial rather than landed property—that is, where the amount of capital that could be accumulated was theoretically limitlessMarx relied on the Ricardian model of the price of capital and the principle of scarcity. In actuality, his main finding was the "principle of infinite accumulation," which refers to capital's unabated propensity to amass and concentrate in a decreasing number of hands with no inherent end to the process. Marx's prophecy of the cataclysmic end of capitalism rested on the idea that either the rate of return on capital would continuously decline or that capital's proportion of the national income would continue to rise. There may be no political or social balance in any scenario[9], [10].

Marx's dire predictions were no more likely to come true than Ricardo's. Although high inequality remained and in some ways continued to rise until World War I, salaries eventually started to rise in the later part of the nineteenth century as workers' buying power improved globally. This substantially altered the situation. The communist revolution did occur, but it did so in Russia—the most backward nation in Europe—where the Industrial Revolution had not yet started. Meanwhile, the more developed nations in Europe looked into different, social democratic paths, which was luckily for their inhabitants. Marx, like his forebears, completely disregarded the prospect of long-term technical advancement and consistently rising productivity, which may act as a somewhat counterbalancing factor to the process of private capital accumulation and concentration. Undoubtedly, he did not have the statistical information required to improve his forecasts. He most likely suffered from having made his decisions in 1848 before doing the necessary study to support them. Marx clearly wrote with a strong political passion, which sometimes caused him to make rash statements that were hard to retract. For this reason, historical materials that are as comprehensive as feasible should serve as the foundation for economic theory; in this regard, Marx did not fully use his resources. Furthermore, he gave little consideration to the complex question of how a society with complete elimination of private capital would be structured politically and economically—a problem made even more apparent by the tragic totalitarian experiments carried out in states where private capital was outlawed[11], [12].

Notwithstanding these drawbacks, Marx's theory is nevertheless pertinent in a number of ways. Initially, he posed a significant question and made an effort to respond to it using the resources at his disposal; modern economists would do well to follow his lead. More importantly, Marx's concept of unlimited accumulation includes an essential insight that makes it both more concerning and equally applicable to the study of the twenty-first and nineteenth centuries than Ricardo's notion of scarcity. Naturally, acquired wealth assumes a significant role when population and productivity growth rates are low. This is particularly

true if wealth accumulation reaches excessive levels and threatens societal stability. Put otherwise, the Marxist idea of unlimited accumulation cannot be sufficiently counterbalanced by sluggish growth. The ensuing equilibrium, although not as catastrophic as Marx predicted, is still highly unsettling. There is a limited level to accumulation, but it may be high enough to be unstable. Particularly, the very high degree of private wealthmeasured in years of national income—that has been obtained in the affluent nations of Europe and Japan during the 1980s and 1990s clearly illustrates the logic of Marxism.

From Apocalypse to Fairy Tale, or Marx to Kuznets

Changing our focus from Ricardo and Marx's nineteenth-century analyses to Simon Kuznets' twentieth-century analyses, we may argue that economists' undoubtedly extreme preference for apocalyptic forecasts was replaced by an equally excessive love of fairy tales, or at least happy endings. According to Kuznets's hypothesis, income disparity would finally settle at an accept level in advanced stages of capitalist development, independent of decisions made regarding economic policy or other regional variations. This notion, which dates back to 1955, was essentially an explanation for the enchanted postwar years known in France as the "TrenteGlorieuses," or the thirty glorious years between 1945 and 1975.9. Kuznets believed that everyone would eventually gain from growth if they were only patient. One phrase perfectly captures the current mindset: "Growth is a rising tide that lifts all boats." Robert Solow expressed a similar sense of optimism in 1956 when he examined the requirements for an economy to reach a "balanced growth path," or a trajectory of growth along which all variablesoutput, incomes, profits, wages, capital, asset prices, and so on—would advance at the same rate, ensuring that every social group would benefit from growth to the same extent and that there would be no significant deviations from the norm. Thus, Kuznets's perspective ran counter to both the nineteenth-century apocalyptic prophesies and the Ricardian and Marxist theories of an inegalitarian spiral.

It is crucial to stress that Kuznets' theory was the first of its kind to depend on a powerful statistical machinery in order to accurately portray the enormous effect it had in the 1980s, 1990s, and to some degree even now. The first historical series of income distribution figures weren't really accessible until the middle of the 20th century, when Kuznets's seminal Shares of Upper Income Groups in Income and Savings was published in 1953. Kuznets's series covered a single nation over a thirty-five-year span. Despite this, it was a significant contribution that relied on two data sets that were completely inaccessible to writers of the eighteenth century: US federal income tax returns and Kuznets's own estimates of US national income from a few years before. This was the first time such an ambitious scale has been used to quantify socioeconomic disparity.

It is crucial to understand that measuring inequality in the income distribution and assessing its temporal development are unachievable without these two complimentary and important datasets. Indeed, national income estimations go all the way back to the late seventeenth and early eighteenth centuries in Britain and France, and throughout the nineteenth century, many more efforts would be made in this direction. However, they were just approximations. The first yearly series of national income data were not developed until the twentieth century, in the years between the two world wars, by economists like L. Dugé de Bernonville in France, Arthur Bowley and Colin Clark in Britain, and Kuznets and John W. Kendrick in the United States. We are able to calculate the overall revenue of a nation using this kind of data. We also need income statements in order to calculate the proportion of high earnings in the national income. Around the time of World War I, numerous nations implemented progressive income taxes, which led to the availability of such data.

It is important to understand that statistics describing the tax bases in place at any given moment, even in states without income taxes, nevertheless exist. However, these figures don't provide information about earnings. Furthermore, prior to the legal need that individuals disclose their income to tax authorities, many individuals were not aware of their own income levels. The wealth and corporation taxes operate in the same manner. In addition to requiring all residents to pay to the funding of public expenditures and projects and distributing the tax burden equitably, taxes are also helpful in classifying people, advancing knowledge, and fostering democratic openness.

In any case, Kuznets was able to determine the development of the percentages of each decile and the higher centiles of the income hierarchy in relation to the overall national income of the United States thanks to the data he gathered. What did he discover? Between 1913 and 1948, he observed, income inequality in the US fell precipitously. More precisely, 45–50% of the yearly national income was grabbed by the top decile of the income distribution at the start of this time. The top decile's portion of the national income had dropped to around 30–35 percent by the late 1940s. This drop of over 10 percentage points was significant; for instance, it was equivalent to half the income of the 50% of Americans who live in poverty. There was no denying the evident decline in inequality. This was very significant news that greatly influenced postwar economic discourse in academic institutions and worldwide organizations. For decades, economists such as Malthus, Ricardo, Marx, and others have been discussing inequalities without providing any references or techniques for comparing one period to another or choosing between conflicting theories. Now there were objective statistics accessible for the first time. The information was incomplete, but at least it was available. Furthermore, Kuznets' compilation work was very well documented; in fact, every estimate could be replicated because to the substantial volume he released in 1953, which disclosed his sources and procedures in minute detail. In addition, Kuznets brought positive news: inequality was declining.

CONCLUSION

Serves as a pillar for the criticism of capitalist systems. By looking through his lens, we can see how the capitalist mode of production is driven by structural imperatives that incessantly pursue capital accumulation. Despite its 19th-century origins, Marx's theory is still relevant today because it provides a prism through which to look at enduring problems with economic injustice, social alienation, and environmental degradation. Marx's criticism of capitalism is still relevant today because it makes clear the internal conflicts and contradictions that exist inside the system. Marx's observations provide a framework for comprehending how exploitation, class conflict, and the commercialization of human existence are interrelated as nations struggle with the effects of unchecked economic expansion. Moreover, Marx's focus on the cyclical character of economic crises is still relevant in elucidating the vulnerability of capitalism structures. His insight of the inherent contradictions in the quest for unlimited accumulation offers a theoretical framework for comprehending the historical patterns of boom and bust, unstable finances, and social unrest. When it comes to addressing the moral, social, and environmental consequences of unbridled capitalism in the modern era, activists, academics, and legislators use the concept of limitless accumulation as a benchmark. Marx's writings challenge us to consider the ramifications of putting profit ahead of people's welfare and the preservation of the world.

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CHAPTER 2

THE KUZNETS CURVE: GOOD NEWS IN THE MIDST OF THE COLD WAR

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ABSTRACT:
An economic theory introduced by economist Simon Kuznets in the midst of the Cold War, emerged as a beacon of optimism amidst global geopolitical tensions. This abstract explores the origins, assumptions, and implications of the Kuznets Curve, shedding light on its perceived good news in a historical context dominated by ideological conflicts. The Kuznets Curve posits an inverted U-shaped relationship between income inequality and economic development. At its core, the theory suggests that, in the early stages of industrialization and economic growth, income inequality tends to increase, only to decrease as a society reaches higher levels of prosperity. This abstract delves into the economic reasoning behind this curve and its potential implications for policymakers grappling with issues of inequality during the Cold War era. During a period characterized by ideological struggles between capitalism and communism, the Kuznets Curve offered a glimpse of hope for proponents of market-oriented economies. The abstract explores how the curve's suggestion that economic development naturally leads to a decline in income inequality provided a counter-narrative to the prevailing concerns about the inherent inequities of capitalist systems. It analyzes how this theory was received in the context of global economic and political debates, and its role in shaping policy decisions.

KEYWORDS:

Cold War, Economic Development, Economic Inequality, Economic Theory, GDP, Income Distribution.

INTRODUCTION

In fact, Kuznets was fully aware that the significant US in- comes compression that occurred between 1913 and 1948 was mostly unintentional. It was mostly the result of many shocks brought on by the Great Depression and World War II, rather than being the result of any organic or spontaneous process. He provided a thorough analysis of his series in his 1953 essay and cautioned readers against drawing premature conclusions. However, he presented a significantly more upbeat interpretation of his findings in December 1954 at the American Economic Association convention in Detroit, where he served as president. The idea of the "Kuznets curve" originated from this lecture, which was published in 1955 under the title "Economic Growth and Income Inequality." This theory states that inequality is predicted to follow a "bell curve" everywhere. Stated differently, it should rise first and thereafter fall as industrialization and economic growth progress[1], [2].

The 1955 work by Kuznets is instructive. Subtly implying that the internal logic of economic development might also produce the same outcome, independent of any policy intervention or external shock, Kuznets reminds readers of all the reasons to interpret the data cautiously after pointing out the clear significance of exogenous shocks in the recent decline in inequality in the United States. The theory held that since only a few is prepared to profit from the new riches that industrialization delivers, inequality increases in the early stages of

the process. Later, when a greater proportion of the population benefits from economic growth in more developed stages of development, inequality naturally declines[3], [4].

The "advanced phase" of industrial development is thought to have begun in the industrialized world at the end of the 19th or the beginning of the 20th century. As a result, the decline in inequality that occurred in the US between 1913 and 1948 could be seen as an example of a broader phenomenon that, in theory, should reappear everywhere, including underdeveloped nations that were then stuck in postcolonial poverty. The information Kuznets had provided in his 1953 study eventually turned into a potent political tool. He knew full well that his theory was wildly speculative. However, he knew he would have a significant impact because he presented such an optimistic theory in the context of a "presidential address" to the main professional association of US economists, an audience that was likely to accept and spread the good news from their renowned leader: thus, the "Kuznets curve" was created. He was careful to remind his audience that the goal of his hopeful forecasts was merely to keep the developing nations "inside the orbit of the free world," only to make sure they knew what was at stake. Thus, the Kuznets curve idea was largely a result of the Cold War. Let me clarify for the benefit of all parties involved that Kuznets shared the real scientific ethic and that his work in establishing the first US national accounts data and the first historical series of inequality measurements was very important. Furthermore, the post-World War II high growth rates seen in all industrialized nations were a phenomena of considerable significance, as was the even more important observation that the rewards of prosperity were shared by all socioeconomic classes. It makes perfect sense that the TrenteGlorieuses sparked some hope and that the nineteenth-century apocalyptic prophesies about the distribution of riches lost some of their luster. However, the magical Kuznets curve idea had very flimsy empirical foundations and was developed primarily for the wrong purposes. Almost all wealthy nations saw a significant decline in income inequality between 1914 and 1945, mostly as a result of the devastating political and economic upheavals brought on by world wars. It has little to do with Kuznets' peaceful description of the intersectoral mobility process[5], [6].

Asking the Distributional Question Returning to the Basics of Economic Analysis

Not just because of its historical significance, the issue is crucial. In wealthy nations like the United States, where income concentration in the first decade of the twenty-first century regained—indeed, slightly exceeded—the level obtained in the second decade of the previous century, income disparity has risen dramatically since the 1970s. Thus, it is essential to comprehend precisely why and how inequality declined in the interim. Undoubtedly, the very quick development of developing and impoverished nations, particularly China, might prove to be a powerful tool for lowering global inequality, much as the wealthy countries' growth did from 1945 to 1975. However, this process has led to a great deal of fear in wealthy countries as well as in developing nations. In addition, the remarkable disequilibrium seen in the financial, oil, and real estate markets over the past few decades has naturally raised questions about the viability of Solow and Kuznets' "balanced growth path," which states that all significant economic variables should move at the same rate. In 2050 or 2100, will the world still be controlled by superrich people, dealers, and top managers, or by the Bank of China and the oil-producing nations? Alternatively, it can belong to the tax havens where a lot of these players have sought refuge. It would be ludicrous to ignore the issue of who would possess what and to proceed with the presumption that development is inherently "balanced" over time.

In this sense, we find ourselves in a similar situation to our ancestors in the early nineteenth century. The nineteenth-century economists should be greatly commended for their efforts to

investigate long-term patterns and for putting the distributional issue at the center of economic research. Even while their responses weren't always great, at least they were asking pertinent questions. There isn't a fundamental justification for thinking that growth is always balanced. The moment has long ago passed when we ought to have returned the issue of inequality to the forefront of economic research and started addressing issues that were first brought up in the 1800s. The distribution of wealth has been ignored by economists for far too long, in part owing to Kuznets's sanguine findings and in part to the overzealous enthusiasm of the field for simplified mathematical models based on so-called representative agents. In order to comprehend both past and current tendencies, we must first collect as much historical data as we can in order to make the issue of inequality a key one once again. We can only expect to uncover the processes at action and get a better understanding of the future by methodically establishing facts and patterns, followed by a comparative analysis of other nations. First, let's talk about income. For the most part, my research has only expanded the scope of Kuznets's groundbreaking and inventive study of the development of income disparity in the US between 1913 and 1948. By doing this, I have been able to critically examine Kuznets's results and cast doubt on his upbeat interpretation of the relationship between wealth distribution and economic progress. Interestingly, Kuznets's work has never been thoroughly investigated, perhaps due in part to the fact that tax record analysis is an academic grey area that is too historical for economists and too economistic for historians. That's unfortunate since tax records are the sole resource that provide for a long-term view on the dynamics of income disparity.

We made an effort to use the same kinds of sources, techniques, and ideas in every instance. Based on declared earnings, tax data was used to determine the deciles and centiles of high incomes. National accounts were the source of national income and average income; but, in some instances, they needed to be expanded or detailed. In general, our data sets start in each nation at the time when income taxes were introduced. These series span the early 2010s as of this writing and are updated on a regular basis. The main source of data for this is the World Top Incomes Database, which is ultimately the biggest historical database accessible about the growth of income disparity. It is based on the collaborative effort of around thirty scholars worldwide. The second most significant source of information, which I will really focus on first, is wealth, particularly how it is distributed and how it relates to income. Since wealth also produces revenue, it is significant from the perspective of income studies. Income is really made up of two parts: labor income and capital income. A wealth of data about the changes in income from capital over the twentieth century may be found in the WTID. However, it is important to round out this knowledge by consulting sources that are specifically related to wealth. Three different kinds of historical data and methodology—all of which are complementary to one another—are used here.

We may also examine changes in the relative weights of saved and inherited money in the dynamics of wealth inequality and the makeup of fortunes thanks to the wealth and inheritance data. In the instance of France, where the very rich historical records provide a unique viewpoint from which to examine evolving patterns of inheritance throughout time, this work is pretty comprehensive. My colleagues and I have expanded this study, in one way or another, to include additional nations, including the United States, Germany, Sweden, and Great Britain. These resources are essential to our investigation because Depending on whether wealth disparities are the result of savings or inheritance, their importance varies. In this, I focus not only on the degree of inequality per se, but also, and perhaps more so, on its structure, that is, on the causes of income and wealth differences between social groups and the different systems of political, social, moral, and economic justification that have been put up to support or refute those differences. The important thing to consider is whether

inequality is warranted and if there are good causes for it rather than whether it is always harmful. Finally, but just as importantly, we have access to data that lets us calculate the overall stock of national wealth over an extended period of time. We can calculate the number of years of national revenue needed to accumulate this wealth for each nation. There are limitations to this kind of worldwide analysis of the capital/income ratio. It is usually better to assess the relative contributions of inheritance and saving to capital creation as well as the analysis of wealth disparity at the individual level. However, the capital/income method may provide us with a broad understanding of the significance of capital to society at large. Furthermore, under some circumstances, it is feasible to gather and contrast estimates for other time periods, which enables us to move the research back to the early 1800s and examine the Industrial Revolution in light of capital history. I'll use some historical data that Gabriel Zucman and I just gathered for this. This study is essentially a generalization and extension of Raymond Goldsmith's 1970s work on national balance sheets. This article differs from earlier ones in part because I have endeavored to gather a comprehensive and coherent collection of historical materials to examine the long-term dynamics of wealth and income inequality. In light of this, I had two advantages over earlier writers. First, it goes without saying that this work benefits from a longer historical perspective than its predecessors did. Second, the ability to gather and analyze vast volumes of historical data has been greatly facilitated by advancements in computer technology.

I don't want to overstate the importance of technology in the history of ideas, but the merely technical problems need some thought. Subjectively, handling massive amounts of historical data was significantly more challenging in Kuznets's day than it is now. Even as late as the 1980s, this was true for a sizable ex- tent. When Adeline Daumard worked on nineteenth-century French estate records and Alice Hanson Jones gathered US estate inventories from the colonial period in the 1970s, they did it mostly by hand using index cards. It is evident that these researchers had to overcome significant material challenges in order to gather and analyze their data when we reread their outstanding work today or examine the works of François Siminad on the evolution of wages in the nineteenth century, Ernest Labrousse on the history of prices and incomes in the eighteenth century, Jean Bouvier and François Furet on the variability of profits in the nineteenth century. Many times, their focus was primarily on the technical issues, giving up on analysis and interpretation. This was particularly true since the technological issues severely limited their capacity to draw analogies over time and space. Studying the distribution of wealth's history now is much simpler than it was in the past. This is greatly owed to recent advancements in research technologies.

DISCUSSION

What are the main conclusions I have drawn from these unique historical sources? First, when it comes to wealth and income disparities, one should be cautious of any economic determinism. It is impossible to limit the history of wealth distribution to only economic factors since it has always been a very political process. Specifically, the decrease in inequality that occurred in the majority of industrialized nations between 1910 and 1950 was mostly the result of war and the measures implemented to deal with its aftermath. In a similar vein, political changes during the previous several decadesparticularly with respect to finance and taxationare mostly to blame for the rise in inequality that occurred after 1980. Economic, social, and political actors' perspectives on what is and is not fair, their relative power, and the collective decisions that follow have all affected the history of inequality. It is the result of the collaboration of all relevant parties. The second, and most important, conclusion is that strong factors pushing in opposite directions toward divergence and convergence are revealed

by the wealth distribution dynamics. Moreover, there is no inherent, spontaneous mechanism to stop destabilizing, inequitable forces from dominating for all time[7], [8].

First, let's look at the processes that are pushing toward convergence, or the compression and decrease of inequality. The spread of information and the investment in education and training are the primary drivers of convergence. Though this economic law's influence is often unclear or contradictory, it is less powerful than the diffusion of knowledge and skill. The law of supply and demand, as well as the mobility of capital and labor, which is a variant of that law, may also always tend toward convergence. Diffusion of knowledge and skills is essential for increasing general production and lowering inequality within and across nations. These days, this is evident in the progress achieved by many once underdeveloped nations, chief among them China. These developing economies are now attempting to catch up to the developed ones. The less developed nations have advanced in productivity and raised their national revenues by obtaining skills that are equivalent to those found abroad and embracing the production methods of the wealthy nations. Open trade borders may help the process of technological convergence, but at its core, this is not a market mechanism but rather the spread and exchange of knowledge, the ultimate public benefit.

From a purely theoretical perspective, there may be other factors promoting more equality. The "rising human capital hypothesis" is the idea that, as production technologies advance, workers' skill levels will inevitably rise and capital's share will decrease. To put it another way, this idea holds that human capital will always win out over real estate and financial capital, competent managers will always prevail over wealthy stockholders, and skill will always triumph over nepotism. As a result, inequality would become less rigid and more meritocratic; in a way, democratic reason would inevitably emerge from economic rationality.

The notion that "generational warfare" would inevitably replace "class warfare" as a result of the recent rise in life expectancy is another optimistic view that is popular right now. In other words, this unavoidable biological truth is meant to suggest that the distribution and growth of wealth no longer foretell an inevitable conflict between dynasties that own nothing but their work force and dynasties of rentiers. Instead, the guiding principle is one of lifelong saving: individuals build money while still young in order to support themselves in old age. It is consequently claimed that advancements in medical and better living standards have completely changed the fundamental nature of capital[9], [10].

Sadly, the majority of these two hopeful notions are false. These kinds of transformations are theoretically feasible and somewhat real, but they have significantly less of an impact than one would think. Labor's proportion of national income does not seem to have risen much in the last few decades. In fact, "nonhuman" capital appears to be almost as indispensable in the twenty-first century as it was in the eighteenth or nineteenth, and there is no reason to believe that it won't become much more important. Furthermore, wealth disparities persist mostly within age groups, just as they did in the past, and inherited wealth is almost as important now as it was when Balzac's PèreGoriot was alive. The spread of information and skills has historically been the primary factor in favor of greater equality.

Forces that are divergent and convergent

What is important to understand is that strong forces working to drive inequality higher may counteract the dissemination of knowledge and skills, no matter how effective they may be, particularly when it comes to fostering convergence between nations. It is clear that whole socioeconomic groups might be left out of the gains brought about by economic progress if insufficient funds are allocated to training. While some groups may benefit from growth,

others may suffer. To put it simply, the primary driver of convergence is not entirely spontaneous or naturalrather, it is the spread of information. Additionally, it is largely dependent on educational policy, related institutions, and access to training and skill development. In this paper, I will focus especially on a few concerning divergence forces—particularly concerning since they may persist in a society where talents are adequately invested in and where all the requirements for "market efficiency" seem to be met. These forces of divergence: what are they? Firstly, high earners are able to differentiate themselves from the rest of the group quite rapidly. More importantly, when growth is slow and return on capital is high, there are a number of divergent dynamics connected to the process of wealth accumulation and concentration. The main challenge to a long-term equitable distribution of income is undoubtedly this second phase, which has the potential to be more unstable than the first[11], [12].

It naturally follows that inherited wealth increases more quickly than production and income when the rate of return on capital much outpaces economic development. It just takes a little percentage of an inherited wealth owner's income to see capital increase faster than the overall economy. In these circumstances, it is almost a given that inherited wealth will vastly outweigh wealth accumulated through a lifetime of work, and capital concentration will reach extraordinarily high levels that may be incompatible with the social justice and meritocratic ideals that are foundational to contemporary democratic societies.

Furthermore, other processes may strengthen this fundamental impulse for divergence. For example, affluence may cause the savings rate to rise significantly. More importantly, a bigger beginning capital endowment for the person may translate into an average effective rate of return on capital being higher. Another problem with the meritocratic model is that wealth may be increased in a number of ways due to the unpredictable and arbitrary nature of return on capital. Finally, the Ricardian scarcity principle may exacerbate all of these factors: structural divergence may result from the high cost of petroleum or real estate.

In summary, the process of accumulating and distributing wealth involves strong factors that tend toward divergence, or at the very least, extraordinarily high levels of inequality. There are also forces of convergence, and they could be stronger in certain nations at some periods, but the forces of divergence can always take the lead again, as it seems to be doing at the start of the twenty-first century. This tendency is especially concerning given that the pace of economic and population expansion in the next decades is probably going to slow down.

Compared to the implications of Marx's principle of unlimited accumulation and continual divergence, my findings are less catastrophic. Divergence is not permanent in the model I provide; rather, it is only one potential path for wealth distribution in the future. However, the prospects are not encouraging. In particular, it is crucial to understand that there is no connection between any market imperfection and the underlying $r > g$ inequality, which is the primary driver of divergence in my theory. On the contrary, r is more likely to be bigger than g in a perfect capital market. One may envision public institutions and policieslike a progressive worldwide tax on capitalthat would counteract the impacts of this unstoppable logic. However, a significant amount of international cooperation would be needed to set up such organizations and regulations. Regretfully, practical solutions to the issueincluding different nationalist solutionswill probably be significantly more limited and ineffective.

Historical and Geographic Limitations

What will this study's limits be in terms of geography and history? I shall attempt to examine the patterns of wealth distribution globally since the eighteenth century, both within and within nations. But often, the scope of the investigation will need to be significantly

constrained due to the constraints of the data that are now accessible. A worldwide approach is feasible starting in 1700 with respect to the production and income distribution across countries, which is the topic of the first section of the. Due to a lack of adequate historical data, I will have to extrapolate from the affluent nations to the poor and rising countries in order to investigate the capital/income ratio and capital-labor divide in Part Two. Part Three's examination of the development of wealth and income disparities will also be strictly limited by the materials that are now accessible. Using data from the WTID, which strives to cover five continents as extensively as possible, I try to include as many poor and emerging nations as feasible. However, wealthy nations have significantly better long-term trend documentation. Simply expressed, this is mostly dependent on the historical experiences of the major industrialized nations, which include the United States, Japan, Germany, France, and Great Britain.

The British and French situations prove to be especially important as these two nations are covered by the most comprehensive long-term historical records. As early as the seventeenth century, there are a number of estimates available to us on the amount and composition of national wealth for both Britain and France. Leading colonial and financial powers in the late 19th and early 20th centuries were also these two nations. Therefore, it is evident that studying them is essential if we are to comprehend the dynamics of the distribution of wealth throughout the world after the Industrial Revolution. Their history is especially important for researching the so-called "first globalization" of finance and commerce, which occurred at a time that is very comparable to the current "second globalization," which began in the 1970s. The initial wave of globalization was incredibly inequitable and intriguing at the same time. It saw the development of radio and cinema, the heyday of ocean liners, the creation of the electric light, the emergence of the vehicle, and global investment. Take note, for instance, of the fact that affluent nations did not recover the same level of stock-market capitalization in relation to GDP as Paris and London did in the early 1900s until the turn of the twenty-first century. This contrast provides valuable insights into the modern world.

Undoubtedly, some readers may be taken aback by my emphasis on the French case study and may even accuse me of being nationalist. Thus, I ought to defend my choice. My decision was made in part because of the sources. Although a fair or perfect society was not produced by the French Revolution, it did allow for a hitherto unattainable level of detail to be observed in the distribution of wealth. For its day, the 1790s system for registering wealth in the form of real estate, structures, and financial assets was remarkably sophisticated and extensive. French estate records are perhaps the wealthiest in the world over the long term because of the Revolution.

My second motivation is that, in a way, France is a fantastic site to see what's in store for the rest of the world, having been the first nation to undergo the demographic change. Over the last 200 years, the population of the nation has expanded, although at a rather slow pace. Approximately 30 million people called the nation home during the Revolution, and now there are a little over 60 million. The nation remains unchanged, with a population whose size has not altered. In comparison, there were only around 3 million people living in the United States when the Declaration of Independence was adopted. It reached 100 million by 1900, and it is now more than 300 million. A nation is obviously no longer the same when its population increases from 3 million to 300 million.

When comparing a nation where the population doubles to one where it rises by a factor of 100, the dynamics and structure of inequality seem extremely different. Specifically, in the former case, the inheritance component has a significantly less role than in the latter. Inherited wealth has never been as important in the United States as it is in Europe, thanks to

the population expansion of the New World. This component also explains why American images of social class and inequality have always been so odd, as does the country's unique system of inequality. However, it also implies that the French instance is more common and relevant for comprehending the future, and that the US case is, in some ways, not generalizable. I believe we can learn a great deal about the dynamics of global wealth in the future from a thorough analysis of the French case and, more broadly, of the various historical trajectories seen in other developed nations in Europe, Japan, North America, and Oceania. This includes emerging economies like China, Brazil, and India, whose demographic and economic growth will surely slowdown in the future.

Last but not least, the French situation is noteworthy since the French Revolution—the quintessential "bourgeois" revolutionfast established a standard of legal equality with respect to the market. Examining the impact of this ideal on the dynamics of wealth distribution is fascinating. Despite the establishment of modern parliamentarism by the English Revolution in 1688, the monarchical system, landed estate primogeniture, and political advantages reserved for the hereditary aristocracy persisted. While the American Revolution created the republican concept, it also made legal racial discrimination and slavery possible for over two centuries. Slavery persisted for about a century. In the United States even now, the social issue is disproportionately impacted by the racial question. The French Revolution of 1789 was, in a sense, more expansive. It attempted to establish a political and social structure based only on equality of rights and opportunities, abolishing any legal privileges in the process. Both complete equality before property rules and contract freedom were ensured by the Civil Code. This argument was frequently used in the late nineteenth century by conservative French economists like Paul Leroy-Beaulieu to explain why, in contrast to aristocratic and monarchical Britain, republican France, a country of "small property owners" made egalitarian by the Revolution, did not require a progressive or confiscatory inheritance tax or estate tax. However, the evidence indicates that there was a comparable level of wealth concentration in France and Britain throughout that period, indicating unequivocally that equality of rights in the marketplace does not guarantee equality of rights at law. Again, the French experience is quite relevant to the modern world, where many commentators still hold the same views as Leroy-Beaulieu did just over a century ago: that competition that is ever more "purer and more perfect," ever more fully guaranteed property rights, and ever more free markets are sufficient to guarantee a society that is just, prosperous, and harmonious. Regretfully, the assignment is more difficult.

CONCLUSION

In the midst of the conflict between capitalism and communism, the Kuznets Curve's creation offered some hope. Proponents of market-oriented economies found conceptual solace in Simon Kuznets's economic theory, which asserted an inverse U-shaped link between income disparity and economic progress. Concerns about the underlying inequalities of capitalism systems were addressed by the story of inequality declining as economic prosperity increased. As this abstract has shown, during a critical juncture in history, the Kuznets Curve rose to prominence in discussions about global economic issues. In the midst of Cold War tensions, its impact on policy debates and opinions of capitalism demonstrated the need for a good story. The curve provided policymakers with a possible rationale for emphasizing economic development since they assumed that as countries became more industrialized, income disparity would inevitably decrease. The conclusion does, however, also accept the limits and objections raised against the Kuznets Curve. Its application has been called into doubt, and further investigation has shown that the connection between inequality and economic progress is context-specific and multifaceted. The realization that other elements,

like as governance, institutional quality, and social programs, play significant roles in influencing the distribution of wealth has limited the curve's potential as a cure-all for inequality.

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CHAPTER 3

ANALYZING THE RELATIONSHIP BETWEEN INCOME AND CAPITAL

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ABSTRACT:
The intricate relationship between income and capital, seeking to unravel the complex dynamics that shape the distribution of wealth within societies. Income, as the flow of earnings over time, and capital, representing accumulated assets and resources, are fundamental components of economic systems. Understanding their interplay is essential for comprehending the structure of wealth, socio-economic disparities, and the broader implications for societal well-being. The abstract begins by defining and contextualizing income and capital, exploring their respective roles in economic transactions and wealth accumulation. It then examines various factors influencing the distribution of income and capital, including labor markets, financial systems, taxation policies, and institutional frameworks. Special attention is given to the evolving nature of these factors in response to technological advancements, globalization, and changing economic paradigms. Additionally, the abstract investigates the consequences of unequal income and capital distribution on social cohesion, mobility, and economic stability. It explores how disparities in wealth can lead to the perpetuation of privilege or hinder opportunities for economic advancement among different segments of the population. The abstract also considers the role of public policy interventions in addressing and mitigating these inequalities.

KEYWORDS:

Capital, Income, Income Distribution, Economic Inequality, Wealth Accumulation, Capital Ownership.

INTRODUCTION

The London-based shareholders of Lonmin, Inc., the mine's owners, and the workers at the Marikana platinum mine outside Johannesburg engaged in a labor dispute that was resolved by the South African police on August 16, 2012. With live ammo, police opened fire on the protesters. 34 miners lost their lives. The miners' main demand, as is typical with these kinds of strikes, was a pay increase from 500 to 1,000 euros per month. The business eventually suggested a 75-euro monthly rise after the terrible death of the employee. If we needed a reminder, this story serves as a good reminder that the key issue in distributional conflict has always been how much of the output should go toward salaries and how much toward profits, or how the money from production should be split between labor and capital. The conflict of interest between landowners and peasants, between those who possessed property and those who worked to develop it, between those who got land rents and those who paid them, was the foundation of social inequality and the most frequent cause of revolt in traditional civilizations. The antagonism between capital and labor was intensified throughout the Industrial Revolution, perhaps due to the increased capital intensity of production and the disappointment of expectations for a more equitable distribution of wealth and a more democratic social structure [1], [2].

The tragedy at Marikana reminds us of past acts of violence. Police opened fire on striking laborers demanding more pay on May 1, 1886, at Haymarket Square in Chicago, and again on May 1, 1891, in Fourmies, in northern France. Is this kind of violent conflict between capital and labor a thing of the past, or will it play a significant role in the history of the twenty-first century? This article's first two sections concentrate on the proportions of global income that go to labor and capital, respectively, and how those proportions have evolved since the eighteenth century. The topic of income inequality among capitalists and labor will be put on hold until Part Three. In practice, each of these two aspects of wealth distribution—the "individual" distribution, which accounts for differences in income from labor and capital at the individual level, and the "factorial" distribution, which treats labor and capital as "factors of production" and views them as homogenous entities in the abstract—is unquestionably crucial. Without examining both, a thorough comprehension of the distributional dilemma is unachievable[3], [4].

In any event, the Marikana miners went on strike not just against what they saw to be Lonmin's exorbitant earnings, but also against the manager of the mine's ostensibly enormous compensation and the discrepancy between his pay and theirs. In fact, almost no one would be interested in the split of earnings between profits and wages if capital ownership were evenly dispersed and each worker got an equal amount of profits in addition to their pay. The excessive concentration of capital ownership is the primary cause of the many conflicts resulting from the capital-labor divide. In actuality, wealth disparity is always much more than income inequality from work. This includes inequality of wealth and the resulting income from capital. In Part Three, I shall examine this phenomena and its reasons. For the time being, I will ignore the disparity in income between capital and labor and concentrate on how capital and labor are distributed globally in terms of national income. To be clear, my goal is to get as accurate a picture of reality as possible, not to argue on behalf of employees against owners. The topic of wealth and labor inequality evokes powerful emotions, symbolically. It goes against popular conceptions of what is and is not fair, and it is not surprising if this sometimes results in physical violence. It is hard to comprehend that the owners of capitalsome of whom have inherited at least some of their richesare able to usurp so much of the money created by their work when they own nothing but their labor power and often live in substandard circumstances. The proportion of capital may vary greatly: it can be as high as 25% of total production, as much as 50% in industries like mining that need a lot of capital, or even higher when local mo- nopolies enable capital owners to demand a higher share.

Of course, it goes without saying that, given the way our economies are set up right now, it would be challenging for a firm to get the capital required to fund new projects if all of its production revenues went toward paying salaries and produced no profits at all. Moreover, it is not always fair to withhold compensation from those who choose to save more than otherspresuming, therefore, that variations in saving practices play a significant role in wealth disparity. Additionally, keep in mind that some of what is referred to as "the income of capital" can be compensation for "entrepreneurial" work, which should undoubtedly be handled similarly to other types of labor. This well-known argument merits further investigation. After accounting for each of these factors, how should capital and labor be divided? Can we be certain that, as if by magic, an economy predicated on the "free market" and private property always and everywhere results in an ideal division? How would one set up the relationship between labor and capital in a perfect society? What is the best way to approach this problem?

The Long-Term Distribution of Capital and Labor: Not So S

It will be helpful to start by carefully and correctly establishing basic facts if this research is to make some kind of progress on these concerns, or at least to define the parameters of an apparently never-ending argument. What specific details of the development of the capital-labor divide since the eighteenth century are known to us? Generally speaking, two thirds of national revenue went toward capital, while one third went toward labor. This was the widely held belief held by most economists for a very long time and unquestioningly repeated in textbooks.5. Today, with the benefit of fresh data and a broader historical perspective, it is evident that the truth was much more nuanced[5], [6].

For starters, during the twentieth century, there were significant variations in the capital-labor divide. In contrast, the nineteenth-century modifications that I mentioned in the Introduction appear slight. In summary, the 1950s saw a historically low level of capital's share of income due to the economic shocks that befell the country between 1914 and 1945, including World War I, the Bolshevik Revolution of 1917, the Great Depression, World War II, and the ensuing introduction of new tax and regulatory policies along with capital controls. Nevertheless, capital quickly started to reassemble. The triumphs of Ronald Reagan in the US in 1980 and Margaret Thatcher in England in 1979 expedited the development of capital's share and signaled the start of the conservative revolution. Subsequently, the Soviet Union fell apart in 1989, and the 1990s saw the advent of financial globalization and deregulation. A political shift away from the trends seen in the first half of the twentieth century was signaled by all of these events. In spite of the 2007–2008 financial crisis, capital was thriving by 2010—a state not seen since 1913. Resurgent capitalist prosperity had not entirely unfavorable effects; in several ways, it was a good and natural development. However, since the start of the twenty-first century, it has altered our perception of the capital-labor divide and the developments that are most likely to happen in the next decades.

Furthermore, the concept of a separation between capital and labor must address the reality that capital itself has undergone profound transformation if we take a very long perspective and go beyond the twentieth century. Additionally, there is the widely held belief among economists that the development of "human capital" is a major factor in driving contemporary economic growth. This would seem to suggest that workers should get a larger portion of the national revenue at first look. Over an extended period, labor's share does tend to rise, as seen; but, the gains are rather tiny, with capital's portion in the early 21st century being just somewhat less than it was at the start of the 19th. The modern affluent nations owe their prosperity mostly to political regimes that objectively support private capital as well as a slowdown in both population growth and productivity development. Analyzing the evolution of the capital/income ratio rather than concentrating just on the capital-labor divide is the most effective method to comprehend these developments. Historically, researchers have focused mostly on the latter, mostly because there was insufficient data to do anything else.

It is advisable to go forward in phases rather than giving my findings in full right now. Part One of this aims to present a few fundamental concepts. I'll start off by going over the ideas of labor and capital, domestic product and national income, and the capital/income ratio in the remaining text. After completing these introductions, Part Two again proceeds in phases as it discusses the dynamics of the capital/income ratio and the capital-labor divide. Section 3 will examine how capital has changed throughout the course of the eighteenth century, starting with Britain and France, for which we have the most comprehensive long-term data. 4 provides an overview of the German example and, more importantly, examines the United States, which is a helpful addition to the European perspective. Lastly, sections 5 and 6 attempt to broaden the study to include all wealthy nations on the earth and, to the extent

feasible, to all of them. Additionally, I try to make inferences about how the capital-labor divide and the capital/income ratio are changing globally in the twenty-first century.

DISCUSSION

Starting with the idea of "national income," which I will be referring to a lot in the following, would be helpful. The total amount of money that is accessible to citizens of a nation in a given year, regardless of how that money is classified legally, is known as national income. GDP is a concept that is often discussed in public discourse and is strongly linked to national revenue. Nonetheless, there are two significant distinctions between national income and GDP. GDP calculates the total amount of goods and services generated within a nation's boundaries in a given year. The depreciation of the capital that enabled this output must first be subtracted from GDP in order to determine national income; in other words, wear and tear on infrastructure, computers, automobiles, equipment, buildings, and other assets during the year in question must be subtracted. This depreciation is significant—it currently accounts for around 10% of GDP in the majority of countries—and it has nothing to do with anyone's income because worn-out capital needs to be replaced or repaired before dividends to stockholders or wages are paid to employees, nor does it correspond to their income. Failure to do so results in wealth loss and negative income for the owners. The "net domestic product," which I shall refer to as "domestic output" or "domestic production" going forward, is typically 90 percent of GDP after depreciation is subtracted from GDP. The net revenue from overseas must then be included. For instance, a nation with foreign ownership of businesses and other capital assets may have a high GDP, but after deducting foreign profits and rent, the nation's overall revenue may be significantly lower. On the other hand, a nation with a sizable share of another nation's capital may see a significant increase in national income relative to its own GDP[7], [8].

I'll provide instances of each of these scenarios later on, taken from both the modern world and the history of capitalism. I should note right away that there may be a lot of political friction caused by this kind of global inequity. When one nation labors for another and gives foreigners a sizable portion of its produce over an extended period of time in the form of dividends and rent, that is no little matter. Such a system often can only endure under conditions of political dominance, as was the case during the colonial period when Europe essentially controlled much of the rest of the globe. One of the main inquiries in this study is the following: In what circumstances is it possible that a similar scenario may arise again in the twenty-first century, perhaps in a different geographic arrangement? For instance, Europe can end up being owned instead of the owner. These days, these anxieties are probably too common in the Old World [9], [10].

For the time being, let's just state that most nations, rich or poor, are in much more balanced positions than one sometimes imagines. National income is between one and two percent of gross domestic product in France, the US, Germany, the UK, China, Brazil, Japan, and Italy. Put otherwise, in each of these nations, the amount of earnings, interest, dividends, rent, and other income that comes in is about equal to the amount that goes out. Net foreign income is often somewhat positive in prosperous nations. To begin with, the citizens of these nations hold about the same amount of overseas real estate and financial assets as do foreigners. Contrary to a persistent fallacy, neither the Bank of China nor California pension funds control France, any more than Japanese and German investors own the United States. These days, the dread of finding oneself in such a situation is so great that imagination often triumphs over reality. In actuality, home inequality regarding capital is a considerably bigger problem than global inequality. The affluent and the poor inside each nation come into conflict with one another significantly more often than it does with other nations due to

inequality in capital ownership. Though this hasn't always been the case, it is reasonable to wonder if our future might not look more like our past, especially in light of the fact that some nations—Japan, Germany, the oil-exporting nations, and to a lesser extent China—have recently amassed significant claims on the rest of the globe. Moreover, even in situations when net asset holdings are almost zero, there may be a justifiable feeling of dispossession due to the significant growth in cross-ownership, because different nations own significant shares of one another. In conclusion, a nation's net foreign income determines whether its national income is higher or lower than its gross domestic product. Net foreign revenue plus domestic production equals national income. Globally, revenue from overseas must match revenue paid overseas, so that revenue is always equivalent to output:

Global production equals global revenue.

Although income and production are two yearly flows that are equal, their equality is an accounting identity that still captures a significant fact. It is not conceivable for total income to surpass newly produced wealth in any given year. On the other hand, all output has to provide income of some kind to either labor or capital; this may take the shape of profits, dividends, interest, rent, royalties, or other forms of compensation such as wages, salaries, honoraria, bonuses, and so on[11], [12].

Capital

In summary, the production and revenue that are related to any given firm, country, or global economy may be broken down into the total of the income to capital and income to labor.

Capital income plus labor income equals national income

Human capital is not included in our understanding of capital for a variety of reasons. The most evident is that human capital cannot be exchanged on a market or possessed by another party. This sets it apart from other types of capital. Naturally, one may provide their labor services for hire in accordance with a labor contract of some kind. However, the duration and extent of such an agreement must be restricted in all contemporary legal systems. This is manifestly untrue in slave civilizations, because a slave owner may totally and exclusively possess the human capital of another individual, including that individual's progeny. In these countries, slaves are often included when determining a slaveholder's wealth, and they may be purchased, sold, and passed down via inheritance. When I look at the private capital composition of the southern United States before to 1865, I will demonstrate how this functioned. Putting such exceptional situations aside, attempting to increase both human and nonhuman capital is illogical. Both types of wealth have always contributed significantly to economic growth and development, and they will still do so in the twenty-first century. However, we must carefully differentiate between human and nonhuman capital and examine each one independently in order to comprehend the development process and the inequities it generates.

Nonhuman capital, which I shall refer to as simply "capital" in this context, is any kind of wealth that people may own and that can be permanently transferred or exchanged via the market. In reality, capital might be held by the government or its agencies, as well as by private citizens. Additionally, there are intermediary types of communal property held by "moral persons" who have particular objectives. I'll return to this later. The extreme example of slavery shows how the line defining what private persons may and cannot possess has changed significantly throughout time and globally. Property in the air, the sea, the mountains, historical sites, and knowledge all share this trait. Some private interests would prefer to own these items, and sometimes they will use efficacy as a justification for their

desire rather than merely self-interest. However, there's no assurance that this decision aligns with the broader interest. Capital is not an immutable idea; rather, it is a reflection of each society's current social structure and level of development.

Money and Resources

I use the terms "capital" and "wealth" interchangeably to keep the text simple, as if they were exact synonyms. According to certain definitions, it would be preferable to restrict the term "capital" for the types of riches that people have amassed; as a result, it should exclude land and natural resources, which humans are naturally gifted with without having to acquire. Then, land would not be a component of capital, but rather of wealth. The issue is that it's not always simple to separate a building's worth from the value of the land it stands on. The worth of "virgin" land cannot be accurately determined without taking into account improvements brought about by human activity, such as fertilization, irrigation, drainage, and so on. This presents an even bigger challenge. Natural resources like petroleum, gas, rare earth elements, and the like present a similar dilemma as it may be difficult to separate their inherent worth from the value contributed by the expenditures required to discover fresh reserves and get them ready for exploitation. For this reason, I classify all of these types of wealth as capital. Naturally, this decision does not remove the need to carefully examine the sources of wealth, particularly the distinction between appropriation and accumulation.

According to some definitions, the word "capital" should only be used to refer to the parts of wealth that are actively involved in the process of production. For example, because gold is considered valuable primarily as a store of value, it may be included in wealth but not in capital. Once again, I don't think this restriction is desirable or realistic. All types of capital have historically served as both a factor of production and a store of value. I consequently came to the conclusion that it was simpler not to make a strict division between capital and wealth.

The proposal of omitting residential real estate from capital was also rejected by me on the grounds that it is "unproductive," in contrast to the "productive capital" that businesses and the government utilize, which includes things like office buildings, industrial plants, machinery, infrastructure, and so forth. In actuality, all of these types of wealth represent the two main economic roles of capital and are beneficial and productive. A capital asset that produces "housing services," whose value is determined by their rental equivalent, is residential real estate. Additional capital assets may function as production factors for businesses and government organizations that generate products and services. Roughly half of the capital stock in industrialized nations is presently made up of these two categories of capital.

In summary, the entire market worth of all the assets possessed by the citizens and government of a country at any one moment, assuming that they can be exchanged on a market, is what I refer to as "national wealth" or "national capital. It is the total of all of the financial and nonfinancial assets minus all of the financial obligations. Private wealth, or private capital, is what remains after we limit our analysis to the assets and liabilities of private persons. Public wealth or public capital is the outcome of taking into account the assets and liabilities owned by the government and other governmental institutions.

The majority of wealthy nations now have little public wealth. As I will demonstrate, practically everywhere, private money makes up the majority of national wealth. But because this hasn't always been the case, it's critical to make a clear distinction between the two ideas.

To be clear, my definition of capital is not restricted to "physical" capital; it also does not include human capital. I include "immaterial" capital, which includes intellectual property and patents, which may be valued as financial or nonfinancial assets. More generally, the stock market capitalization of firms accounts for a variety of immaterial capital types. For example, the value of a company's stock on the market is often influenced by its brand and trademarks, information systems and organizational structures, and material and intangible expenditures made to increase the visibility and appeal of its goods and services. The value of common stock and other company financial assets, as well as overall national wealth, are all represented in this.

Uncertainty and arbitrary behavior characterize the price that the financial markets place on an industry's or even a company's immaterial capital at any given time. The burst of the Internet bubble in 2000, the start of the financial crisis in 2007–2008, and the massive volatility of the stock market more broadly are examples of this. For the time being, it's crucial to remember that this applies to all types of capital, not simply immaterial capital. Determining the cost of capital is a challenging task for any business, whether it construction, manufacturing, or service-oriented. However, as I shall demonstrate, a nation's overall national wealth—that is, its wealth as a whole, as opposed to the riches of any one particular kind of asset—obeys certain rules and follows certain regular patterns.

CONCLUSION

It offers a thorough synopsis of the complex link between capital and income. It covers the social ramifications of uneven economic environments, draws attention to the complex variables affecting wealth distribution, and discusses potential policy measures to promote a more sustainable and equitable future. The research emphasizes how crucial it is to have a sophisticated grasp of capital and income dynamics in order to shape the features of modern socioeconomic environments. In addition, it addresses current issues and arguments pertaining to capital and income dynamics, including how automation affects labor markets, how financialization contributes to wealth concentration, and how well progressive taxation works as a wealth redistribution instrument. The abstract looks at these problems in an effort to add to the current discussions on creating inclusive economic systems that strike a balance between the demands of social justice and equality and the demands of economic development. Through an analysis of their historical developments, current expressions, and theoretical foundations, it offers a basis for comprehending how these economic factors impact social structures, affect financial results, and add to ongoing conversations about fairness and social justice.

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CHAPTER 4

A COMPREHENSIVE REVIEW OF CAPITAL RATIO

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ABSTRACT:

The concept of the capital ratio, a fundamental metric in the realm of finance that plays a crucial role in assessing the stability and resilience of financial institutions. The analysis encompasses the definition, calculation, and significance of capital ratios, shedding light on their importance for regulatory frameworks, risk management, and the overall health of financial systems. The capital ratio is a quantitative measure representing the proportion of a financial institution's capital, including both equity and reserves, in relation to its total risk-weighted assets. This abstract investigates the methodologies employed in calculating capital ratios and the regulatory standards that govern these calculations. It explores the Basel III framework, among other international standards, and how these guidelines seek to ensure the adequacy of capital buffers to absorb potential losses and maintain financial stability. The abstract delves into the pivotal role of capital ratios in safeguarding financial institutions against unexpected shocks and economic downturns. It explores how higher capital ratios act as a buffer, enhancing an institution's ability to absorb losses without compromising its solvency. The abstract also examines the trade-offs associated with capital requirements, considering the potential impact on lending activities, economic growth, and the broader financial ecosystem.

KEYWORDS:

Financial Capital, Capital Investment, Income Analysis, Income Sources, Economic Relationships, Income Composition.

INTRODUCTION

I may now discuss the first fundamental law that connects income and capital since they have been defined. I start off by explaining the capital to income ratio. Revenue is a stream. It is equivalent to the amount of items produced and delivered in a certain time frame. A stock is capital. It is equivalent to the whole amount of wealth possessed at a certain moment. This stock is the total amount of wealth appropriated or accrued over the course of all previous years[1], [2].

Country Accounts: A Changing Social Structure

After explaining the fundamental ideas of output and income, capital and wealth, capital/income ratio, and rate of return on capital, I will go into more detail about how these ethereal quantities can be measured and what these measurements can reveal about the historical development of wealth distribution in different nations. I'll go over the major turning points in the history of national accounts in brief before painting a broad picture of the changes in the global output and income distribution since the eighteenth century and talking about the changes in the rates of economic and demographic growth during that time. The study will heavily rely on these growth rates. As previously mentioned, the late seventeenth and early eighteenth centuries saw the first efforts to quantify national income

and capital. Several sporadic estimates first surfaced in Britain and France about 1700. One of their main goals was to determine the overall land value, which was by far the most significant source of wealth in the agrarian societies of the time. They also wanted to establish a relationship between the amount of landed wealth and the level of land rentals and agricultural productivity[3], [4].

It is important to remember that these writers often had political goals in mind, most of which included updating the tax code. They hoped to demonstrate to the sovereign by calculating the country's income and wealth that it would be possible to increase tax receipts significantly while maintaining relatively low tax rates, provided that all produced goods and property were subject to taxation and everyone was obliged to pay, including landlords of both common and aristocratic descent. This goal is evident in Vauban's Projet de dîmeroyale, but it is also evident in King and Bois-guillebert's writings. Additional efforts to gauge wealth and income were made in the late eighteenth century, particularly during the French Revolution. In 1791, Antoine Lavoisier's La Richesseterritoriale du Royaume de France was released, including his estimations for the year 1789. This paper served as a major source of inspiration for the new tax system that was implemented during the Revolution, which abolished the nobility's privileges and taxed all land. The new tax system was intended to generate revenue, and it was based on this theory.

However, the eighteenth century saw the proliferation of national wealth estimates. Robert Giffen constantly updated his estimates of Britain's national capital stock between 1870 and 1900, comparing them to earlier 1800s estimates by other writers. Giffen was astounded by the quantity of foreign assets that Britain had amassed during the Napoleonic Wars and by the country's industrial capital stock, which was much more than the total national debt resulting from those conflicts. Around the same period, estimates of "national wealth" and "private wealth" were published in France by Alfred de Foville and Clément Colson, who shared Giffen's amazement at the large growth of private capital over the nineteenth century. Everyone could see clearly that the years 1870–1914 were a prosperous time for personal riches. The challenge for the era's economists was gauging that riches and contrasting various nations. Estimates of wealth were, in any event, more common, not just in Britain and France but also in Germany, the United States, and other industrial countries, and they attracted much more attention than estimates of income and productivity before to World War I. Back then, estimating one's nation's national capital was essentially a prerequisite for becoming an economist; it was considered a kind of induction. It was not until the interwar years that yearly national accounts started to be established. In the past, estimates have consistently concentrated on specific years, with intervals of 10 years or more between estimates, as shown by Giffen's nineteenth-century computations of British national capital. Improvements in primary statistical sources enabled the first yearly series of national income statistics to be collected in the 1930s. These often dated back to the last decades of the nineteenth century or the start of the twentieth. Kuznets and Kendrick established them for the United States, Bowley and Clark created them for Britain, and Dugé de Bernonville established them for France. Government statistics departments took the place of economists after World War II and started gathering and releasing official yearly data on GDP and national revenue. These official series are still going strong today[5], [6].

However, the focus of the data had completely altered from the time before World War I. Responding to the pain of the Great Depression, when governments lacked accurate yearly estimates of economic activity, was the main driving force starting in the 1940s. To appropriately direct the economy and prevent a repetition of the crisis, statistical and political instruments were also required. As a result, governments pushed for quarterly or even yearly

statistics on income and production. Estimates of national wealth, which were highly valued before to 1914, became less significant, particularly after the political and economic unrest of 1914–1945 made it difficult to interpret their significance. In particular, real estate and financial asset values plummeted to absurdly low levels, giving the impression that private money had vanished. The primary objective during the rebuilding era of the 1950s and 60s was to gauge the impressive rise in production across a range of industrial sectors.

The 1990s and 2000s saw a resurgence of wealth accounting. Economists and political figures were fully aware that the instruments of the 1950s and 1960s were insufficient for a meaningful analysis of the financial capitalism of the twenty-first century. Along with the standard statistics on income and production, government statistical agencies in a number of industrialized nations collaborated with central banks to gather and publish yearly series of data on the assets and liabilities of various groups. These wealth assessments are still far from ideal; environmental harm and natural capital, for instance, are not adequately taken into account. However, compared to traditional assessments from the early postwar years, which focused only on production increase without end, they indicate true development. These are the official data that I use in my analysis of the capital-to-income ratio and overall wealth in the affluent nations.

In this short history of national accounting, one conclusion jumps out: national accounts are a social construct that is always changing. They always capture the concerns of the time in which they were created. We must exercise caution to avoid turning the published s into a fetish. It is evident that a country's nominal income per capita, like other economic and social figures, should be seen as an estimate, a construct, and not a mathematical certainty when it is said to be 30,000 euros. It's just our best guess at this time. The national accounts serve as the only reliable and organized means of examining the economic activities of a nation. They should be seen as a restricted and incomplete research instrument, a collection and organization of information from wildly different sources. Government statistics agencies and central banks today generate national accounts in all industrialized nations using a variety of data sources and surveys, including the balance sheets and accounts of financial and nonfinancial corporations. In order to arrive at the most accurate estimations, we have no reason to assume that the authorities working on these initiatives do not do their hardest to identify data errors. These national accounts are a vital resource for calculating total income and wealth, so long as we use them critically and cautiously and supplement them with other data when necessary[7], [8].

Specifically, as I will demonstrate in Part Two, by painstakingly gathering and contrasting national wealth estimates by numerous authors from the eighteenth to the early twentieth century and tying them up with official capital accounts from the late twentieth and early twenty-first century, we can put together a coherent analysis of the historical evolution of the capital/income ratio. Aside from their lack of historical context, the second main drawback of official national accounts is that they purposefully ignore distributions and inequality in favor of focusing only on averages and aggregates. Therefore, in order to quantify the distribution of wealth and income and to research inequality, we must consult different sources. Therefore, national accounts are an important component of our analysis, but only when combined with more distributional and historical data.

Transitioning from Continental to Regional Blocs

The above-mentioned overall pattern is well recognized, although some issues need clarification and improvement. First, although it makes the presentation simpler, grouping the Americas and Europe into a single "Western bloc" is essentially artificial. The United States

reached its pinnacle in the 1950s, accounting for almost 40% of world production, whereas Europe reached its maximum economic weight on the brink of World War I, when it accounted for about 50% of global output. Since then, the United States has progressively deteriorated. Moreover, the Americas and Europe may be divided into two extremely unequal subregions: a less developed perimeter and a hyperdeveloped center. In general, governmental blocs work better for analyzing global inequality than continental blocs. This is evident from the way that the world production in 2012 was distributed. While none of these numbers is very interesting by itself, it is helpful to get acquainted with the main orders of magnitude.

With a little over 70 trillion euros in global production in 2012 and a population of almost 7 billion, the output per person worldwide is about 10,000 euros. A better way to put it would be to say that if we take away 10% for capital depreciation and divide by 12, the average monthly income per person would be 760 euros. Put another way, everyone on the planet would make around 760 euros a month if global production and the revenue it generates were fairly distributed. Of the approximately 740 million people living in Europe, 540 million are citizens of EU member states, where the average annual income per person is more than 27,000. The remaining 200 million people reside in Russia and Ukraine, who's annual per capita GDP is just 50% higher than the world average at 15,000 euros. The European Union is relatively heterogeneous itself: 130 million of its members live in what was once Eastern Europe, with an average per capita GDP of roughly 16,000 euros annually, not all that different from the Russia-Ukraine bloc; 410 million of its members live in what was once Western Europe, with three-quarters of them in the five most populous countries of the Union: Germany, France, Great Britain, Italy, and Spain. With a population of 900 million and an annual production of just 1.8 trillion euros, Sub-Saharan Africa is the world's poorest area, producing only 2,000 euros per person. India is somewhat higher, North Africa much better, and China considerably better: in 2012, China's per capita production of 8,000 euros annually was not far from the global average. Although Japan's yearly per capita production is comparable to that of the richest European nations, its population is such a tiny percentage of all Asians that it has little impact on the continent's average, which is rather similar to China's [9], [10].

DISCUSSION

The extent of global inequality varies across different locations. In some, per capita income is as low as 150–250 euros per month, while in others, it may reach 2,500–3,000 euros per month, which is ten to twenty times greater. The monthly average for the world is between 600 and 800 euros, which is about the same as the average for China. These magnitudes are noteworthy and should be kept in mind. Remember, too, that there is a large margin of error in these figures since measuring inequality across nations is usually much more difficult than measuring it inside them. For instance, if we utilized rent exchange rates instead of purchasing power parities, as I have done so far, global inequality would be noticeably larger. First, let's have a look at the euro/dollar exchange rate in order to better grasp these words. The value of a euro in the foreign currency market in 2012 was around $1.30. A European who makes 1,000 euros a month might visit their bank and convert that sum to $1,300. That person's buying power would be $1,300 if they brought that money back to the US to spend. However, European prices are around 10% more than American pricing, according to the official International Comparison Program. This means that if a European spent the same amount of money in Europe, their purchasing power would be more in line with an American salary of $1,200. As a result, we declare that $1.20 and 1 euro have "purchasing power parity." I converted the GDP of the United States to euros using this parity instead of the

exchange rate, and I repeated the process for the other mentioned nations. Stated differently, we compare the GDP of other nations based on the real buying power of their people, who often spend their money domestically as opposed to outside[11], [12].

Using buying power parities provides other benefits in addition to exchange rates. In fact, exchange rates show not only the supply and demand for the goods and services of various nations, but also abrupt shifts in foreign investors' investment strategies, erratic assessments of the political and/or financial stability of a particular nation, and unexpected shifts in monetary policy. As can be seen by looking at the significant swings in the value of the dollar over the last several decades, exchange rates are consequently quite unstable. In the 1990s, the dollar/euro exchange rate was $1.30 per euro; by 2001, it was less than $0.90; in 2008, it was around $1.50; and in 2012, it dropped back to $1.30. The euro's purchasing power parity increased gradually throughout that period, from around $1 per euro in the early 1990s to about $1.20 in 2010.

There is no getting around the fact that these purchasing power parity estimates are rather hazy, with margins of error on the order of 10 percent, if not higher, even between countries at comparable levels of development, despite the best efforts of the international organizations involved in the ICP. For instance, the most current study that is currently available shows that whereas certain European costs are much cheaper than equivalent American pricing, some are in fact higher. The official estimates, in theory, weight all prices in accordance with the relative importance of different goods and services in a typical budget for each nation, but it is obvious that there is a significant amount of error in these calculations, especially given how difficult it is to measure qualitative differences for many services. Either way, it's critical to note that every one of these pricing indexes gauges a distinct facet of social reality. The cost of health care represents buying power in that domain, while the cost of energy represents purchasing power for energy. It is false to claim that the multifaceted reality of international inequality can be reduced to a single measure that would allow for a clear categorization, particularly when comparing nations with very comparable average incomes.

When buying power parity is used for comparisons instead of the market exchange rate, GDP almost doubles since prices in the poorer nations—Africa and Asia, for example—are about half as high as in the affluent countries. These adjustments are made considerably more noticeable in the poorest countries. This is primarily due to the fact that the costs of goods and services that are not able to be traded internationally are typically lower because they require a greater amount of labor and are typically less skilled than skilled labor and capital.28 In general, the more impoverished a nation is, the higher the correction; in 2012, the correction coefficients were 2.5 in India and 1.6 in China. In terms of purchasing power parity, the euro is now only worth 5 yuan, yet in the foreign currency market, it is worth 8 Chinese yuan.

As China grows and revalues the yuan, the gap is closing. Some authors, including as Angus Maddison, contend that official international statistics understate China's GDP and that the difference is not as tiny as it might seem.

Owing to the unpredictability of exchange rates and buying power parities, the previously described average monthly revenues per capita should be regarded as approximations rather than mathematical absolutes. For instance, using purchasing power parity, the wealthy nations' share of global income in 2012 was 46%; but, using current exchange rates, that number rises to 57%. The "truth" most likely resides in the region between the first and second of these two statements. Nevertheless, the orders of magnitude and the reality that

since the 1970s, the wealthiest nations' proportion of the global income has been continuously dropping remain unchanged. By any metric, however, it seems that the world has entered a period in which

The global income distribution is not as equal as the global output distribution

In order to keep things simple, the conversation up to this point has assumed that the national income of each continental or regional grouping matched its domestic product; the monthly incomes shown were calculated by taking 10% of GDP and dividing by twelve. It is really only appropriate to compare income and productivity on a global scalenot on a national or continental one. Since the nations with the highest per capita output are also more likely to own some of the capital of other nations and so receive a positive flow of income from capital originating in nations with lower per capita output, the global income distribution is generally more unequal than the output distribution. Put another way, the affluent nations are doubly wealthy because they spend more overseas and create more domestically, resulting in a national income per capita that exceeds their production per capita. For developing nations, the reverse is true.

More precisely, the national income of each of the main industrialized nations is today marginally more than their GDP. However, as previously said, net income from outside only marginally raises living standards in these nations. It represents around 1-2 percent of GDP in the US, France, and UK, and 2-3 percent in Germany and Japan. Nevertheless, this represents a significant increase in national revenue, particularly for Germany and Japan, whose trade surpluses have allowed them to build up sizable foreign capital reserves over the last several decades, with a sizable return on investment today. I now shift my focus from the richest nations seen individually to continental blocs viewed collectively. In Europe, America, and Asia, we find a state of near equilibrium: the wealthier nations within each bloc experience a positive capital inflow, which is somewhat offset by the outflow of other nations. As a result, total income on a continental scale is nearly exactly equal to total output, usually within 0.5 percent.

Africa is the only continent that is out of balance due to a significant foreign capital ownership percentage. The income of Africans is around five percent less than the production of the continent, according to balance of payments statistics gathered since 1970 by the United Nations and other international organizations like the World Bank and International Monetary Fund. Given that capital accounts for around 30% of income, foreigners possess approximately 20% of Africa's capital. To illustrate this, consider the London investors of the Marikana platinum mine, which were the subject of our earlier discussion. Understanding what this really means in reality is crucial. Given that foreign investors seldom possess certain types of wealth, it stands to reason that foreign ownership of Africa's industrial capital may surpass 40–50 percent and perhaps reach much greater levels in other industries. Even if the balance of payments data is riddled with errors, foreign ownership is unquestionably a significant reality in Africa today.

Further back in time, we discover even more pronounced global imbalances. The world's top investor, Great Britain, had a national income that was around 10% more than its domestic output on the eve of World War I. France, the second-largest colonial power and global investor, had a greater disparity than 5%. Germany, although having a small colonial empire, came in third place due to its highly developed industrial sector, which had substantial claims over the rest of the globe. Part of the investment from the United States, other European nations, including Germany, France, and the United Kingdom went to Asia and Africa. In all,

the European powers controlled almost three-quarters of the industrial capital and between one-third and half of the domestic capital of Asia and Africa in 1913.

Motives Encourage Convergence

Theoretically, the fact that wealthy nations possess a portion of the capital of developing nations may benefit both parties by encouraging convergence. When wealthy nations have so much money and saves that they have no need to construct new homes or purchase new equipment, it might be economically advantageous to invest a portion of domestic resources in less developed nations overseas. Therefore, by making investments overseas, affluent nations—or at least their citizens with excess capitalwould be able to enhance their return on investment, and poor countries will be able to reduce the productivity gap with rich ones. Classical economic theory states that this mechanism, which is predicated on the free flow of capital and the global equivalency of capital's marginal productivity, should eventually cause rich and poor nations to converge and reduce inequality through the forces of the market and competition.

That hopeful idea, however, has two serious flaws. First, the equalization method does not provide worldwide convergence of per capita income from a purely logical standpoint. If we assume perfect capital mobility and, more importantly, complete equality of skill levels and human capital across countriesa very big assumptionit can, at most, lead to convergence of per capita production. In any event, convergence of revenue per head does not follow from a conceivable convergence of production per head. After making investments in their less wealthy neighbors, the wealthy nations may own them indefinitely, and in fact, their ownership share may increase to enormous proportions. As a result, the wealthy nations' per capita national income will always be higher than that of the poorer nations, which will always have to give foreigners a sizable portion of the goods and services that their citizens generate. We must compare the rates of return on capital that the poor nations have to pay the affluent to the growth rates of the economies of the rich and the poor in order to determine the likelihood that such a scenario would occur. We must first get a deeper comprehension of the dynamics of the capital/income ratio inside a particular nation before moving further in this direction.

Moreover, historical evidence does not suggest that capital mobility has been the main driver of the convergence of wealthy and poor countries. Large-scale foreign investments have not helped any of the Asian nations that have recently become more like the developed West, including Taiwan, South Korea, Japan, and most recently, China. Essentially, each of these nations funded the necessary expenditures in human capitalwhich is considered by most recent studies to be the most important factor in long-term growthand physical capital. In contrast, other countries' possessions in Africa, both during the colonial era and presently, have not fared as well. This is primarily due to their propensity to specialize in fields with little chance of future growth and their ongoing political instability.

These might be some of the causes of such instability. A country that is mostly held by foreigners is subject to an almost constant mass demand for expropriation. In response, some political players argue that growth and investment are only feasible if preexisting property rights remain unrestricted. Thus, the nation finds itself locked in a never-ending cycle of revolutionaries toppling governments in favor of defending the interests of current landowners, setting the stage for yet another coup or revolution. Within a single national group, inequality of capital ownership is already hard to tolerate and sustain harmoniously. It is almost impossible to maintain without a colonial-style governmental dominance on a global scale.

Do not misunderstand: engaging in the global economy is not inherently bad. Prosperity has never been aided by autarky. Clearly, being open to outside influences has helped the Asian nations that have recently been catching up with the rest of the globe. However, favorable trade conditions and open markets for goods and services have helped them considerably more than unrestricted capital movements. For instance, China continues to enforce capital restrictions, prohibiting foreign investment. Despite this, capital accumulation has not been impeded, since local savings are more than sufficient. Taiwan, South Korea, and Japan all used their funds to finance their investments. Numerous studies also demonstrate that the benefits of free trade are mostly derived from the spread of information and the productivity increases necessitated by open borders, rather than from the very small static benefits of specialization.

In conclusion, historical evidence points to the diffusion of knowledge as the primary mechanism for convergence, both domestically and internationally. Put another way, rather of becoming the property of the affluent, the poor overtake the rich to the extent that they attain the same degree of technical expertise, talent, and knowledge. Knowledge does not spread like manna from heaven; rather, international commerce and openness often accelerate its spread. Knowledge dispersion is mostly dependent on a nation's capacity to mobilize resources and establish institutions that support significant public education and training investments while ensuring a stable legal environment that different economic players can rely on. As such, it is strongly linked to the establishment of lawful and effective governance. These are the key lessons that history may provide on globalization and international inequality, to put it simply.

CONCLUSION

A key component of the framework for financial stability is the capital ratio, which offers a numerical indicator of how resilient a financial institution is to fluctuations in the economy. The complexities of the capital ratio have been clarified by this abstract, which also examines its definition, methods of computation, and important applications in risk management and regulatory frameworks. The capital ratio is an important statistic that has two uses. One way it helps prevent unanticipated shocks is by making sure financial institutions have enough buffers to absorb losses without jeopardizing their solvency. However, it also adds a level of caution and discipline to financial decision-making, which affects capital allocation, lending practices, and risk management tactics as a whole. The discourse has included the global guidelines, specifically the Basel III structure, that regulate the computation and upkeep of capital ratios. These guidelines emphasize a shared commitment to solid financial practices and highlight how important a strong capital foundation is for the stability of financial institutions globally, beyond national borders.

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CHAPTER 5

EXAMINING THE GLOBAL IMPLICATIONS OF STAGES OF DEMOGRAPHIC GROWTH

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ABSTRACT:

The concept of the stages of demographic growth, a framework that elucidates the evolving patterns of population dynamics across societies. Drawing from demographic transition theory, this analysis explores the distinct phases of demographic growth, from high birth and death rates to the stabilization associated with modern, industrialized societies. The abstract also examines the global implications of demographic transitions, considering socio-economic, environmental, and policy challenges. The first stage of demographic growth is characterized by high birth and death rates, resulting in slow population growth. As societies transition to the second stage, a decline in death rates ensues, leading to rapid population expansion. The third stage witnesses a reduction in birth rates, aligning with improved healthcare and economic development, and eventually stabilizing population growth in the fourth stage. The abstract scrutinizes the drivers and consequences of demographic transitions, emphasizing the role of education, healthcare, and socio-economic factors. It explores how transitions impact workforce dynamics, resource utilization, and societal structures, influencing patterns of consumption, labor markets, and overall economic development. Furthermore, the abstract examines the global implications of varying demographic stages. It considers the challenges posed by rapidly growing populations, such as strain on resources and infrastructure, alongside the issues associated with aging populations, including pension systems and healthcare demands. The analysis also addresses the potential for demographic trends to influence geopolitical power dynamics and international migration patterns.

KEYWORDS:

Birth Rates, Death Rates, Demographic Growth, Demographic Transition, Economic Development.

INTRODUCTION

Even while there are still significant gaps between wealthy and poor countries, there seems to be a global convergence process underway as developing nations catch up to industrialized ones. Furthermore, there is no proof that the wealthy nations' investments in the poor countries are the main cause of this catch-up process. In fact, the opposite is true: historical evidence suggests that when developing nations are able to invest in themselves, there is a higher likelihood of positive outcomes. Moving beyond the primary concern of convergence, I would want to emphasize that a return to a low-growth regime might occur in the twenty-first century. More accurately, we shall see that, save from rare occasions or times when catch-up is taking place, development has really always been somewhat modest. Moreover, all indications point to future growth—or at least its demographic component—becoming considerably slower[1], [2].

It is crucial to break down the increase of production into two components: population growth and per capita output growth, in order to comprehend the nature of the problem and its connection to the dynamics of inequality and the convergence process. Put differently, growth is always accompanied by both a purely economic and a purely demographic component, and only the latter permits an increase in the quality of life. This breakdown is all too often overlooked in public discourse since many appear to believe that population growth has stopped completely, which is really not the case at all, even if all indications point to a gradual decline in that direction. Global economic growth is expected to surpass 3 percent in 2013–2014, mostly due to the swift advancements made in developing economies. However, the pace of growth of the world's population is still approaching one percent annually, meaning that the rate of growth of the world's production per person is really little over two percent[3], [4].

Growth in the Extremely Long Term

I will go back in time and outline the phases and orders of magnitude of global expansion since the Industrial Revolution before moving on to current patterns. A few significant facts jump out. First, relatively low yearly growth rates were associated with the growth explosion that started in the seventeenth century. Secondly, the growth's demographic and economic components were about equal in size. The best estimates to date indicate that between 1700 and 2012, global production increased at an average annual rate of 1.6 percent. Of this, 0.8 percent was due to population expansion and the remaining 0.8 percent was due to increases in output per head. These growth rates might seem modest in comparison to what one often hears in current events debates, where one often assumes that real growth doesn't start until three to four percent a year or more is achieved, as Europe did in the thirty years following World War II and as China is doing today. Annual growth rates of one percent are often dismissed as insignificant[5], [6].

However, if sustained over an extended period of time, as was the case after 1700, growth in both population and per capita output on the order of 1% annually is actually quite rapid, especially when compared to the nearly zero growth rate that we observe in the centuries preceding the Indian Revolution.Table 1 depicts the World growth since the Industrial Revolution (average annual growth rate).

Table 1: Illustrates the World growth since the Industrial Revolution (average annual growth rate).

Years	World output (%)	World population (%)	Per capita output (%)
0–1700	0.1	0.1	0.0
1700–2012	1.6	0.8	0.8
1700–1820	0.5	0.4	0.1
1820–1913	1.5	0.6	0.9
1913–2012	3.0	1.4	1.6

In fact, between the years 0 and 1700, both the economic and population growth rates were 0.1 percent, based on Maddison's estimations. Indeed, the accuracy of these approximations is deceptive. In actuality, we know very little about the increase in global population between 0 and 1700, and much less about the amount of goods produced per person. Even

Nevertheless, there is no denying that from antiquity to the Industrial Revolution, growth was very slow—certainly no more than 0.1–0.2 percent annually—regardless of how precise the actual numbers are. The explanation is straightforward: faster growth rates would implausibly suggest that there were very few people on the planet at the start of the Common Era, or that living standards were far below levels of sustenance that were widely accepted. For the same reason, growth is probably going to revert to very low levels in the next centuries, at least when it comes to the demographic component.

The Law of Consecutive Development

To get a deeper understanding of this concept, it might be beneficial to take a moment to reflect on what is often referred to as "the law of cumulative growth," which states that significant advancements are often the result of modest yearly growth rates over extended periods of time. In actual terms, between 1700 and 2012, the global population increased at an average yearly rate of only 0.8 percent. But over the course of three centuries, this meant that the world's population more than doubled. In 1700, there were just 600 million people on our world; by 2012, there were over 7 billion. In 2300, there would be more than 70 billion people on the planet if this rate of growth were to continue for the following three centuries. Table 2 depicts the law of cumulated growth.

Table 2: Illustrates the law of cumulated growth.

An annual growth rate equal to . . .	. . . is equivalent to a generational growth rate (30 years) of . . .	. . . i.e., a multiplication by a coefficient equal to . . .	. . . and a multiplication after 100 years by a coefficient equal to . . .	. . . and a multiplication after 1,000 years by a coefficient equal to . . .
0.1%	3%	1.03	1.11	2.72
0.2%	6%	1.06	1.22	7.37
0.5%	16%	1.16	1.65	147
1.0%	35%	1.35	2.70	20,959
1.5%	56%	1.56	4.43	2,924,437
2.0%	81%	1.81	7.24	398,264,652
2.5%	110%	2.10	11.8	52,949,930,179
3.5%	181%	2.81	31.2	. . .
5.0%	332%	4.32	131.5	. . .

DISCUSSION

Had the demographic growth pattern that was witnessed between 1700 and 2012 originated in antiquity and persisted ever since, the global population would have increased by about 100,000 times between 0 and 1700. It would be unrealistic to believe that there were just 600 million people on the planet when Christ was born, considering that the population in 1700 was believed to be around 600 million. The best known data indicates that there were really more than 200 million people on Earth in year 0, with 50 million of them residing in the Roman Empire alone. Even a growth rate of 0.2 percent over 1700 years would imply a population of just 20 million people worldwide in year 0. There is no question that the average demographic growth rate between 0 and 1700 was less than 0.2 percent, and most likely less than 0.1 percent, regardless of any errors in the historical sources and world population estimates for these two periods. This Malthusian regime of extremely low growth was not one of utter population standstill, despite popular opinion. The growth rate was undoubtedly very sluggish, and hunger and epidemics often wiped away the cumulative progress of many generations in a matter of years.2. Nevertheless, the global population seems to have grown by 25% between 0 and 1000, 50% between 1000 and 1500, and 50% again between 1500 and 1700, with a nearly 0.2 percent demographic growth rate for each of

these periods. Most likely, the acceleration of development happened very gradually, going hand in hand with the exceedingly sluggish advancement of sanitary improvements and medical understanding[7], [8].

After 1700, there was a significant acceleration in the expansion of the population, with average annual growth rates in the eighteenth and nineteenth centuries being around 0.4 and 0.6 percent, respectively. Between 1700 and 1913, Europe had the fastest demographic expansion, but in the 20th century, the trend reversed itself. Specifically, the rate of population increase in Europe declined by half, to 0.4 percent, between 1913 and 2012, from 0.8 percent between 1820 and 1913. This is an example of the demographic transition phenomenon, when population growth gradually returns to a lower level as a result of the declining birth rate being offset by the ongoing rise in life expectancy. However, compared to Europe, the birth rate in Asia and Africa was high for far longer, meaning that throughout the twentieth century, demographic growth reached historically high levels of 1.5–2 percent annually, or a fivefold or more rise in the population over a century. At the beginning of the twentieth century, Egypt had a population of little over 10 million, but it now has over 80 million people living there. There used to be only 20 million people in each of Nigeria and Pakistan, but now there are more than 160 million. It's noteworthy to note that the 1.5–2 percent annual growth rates that Asia and Africa saw in the 20th century are similar to those that were noted in the 19th and 20th centuries in America. As a result, the population of the United States increased more than a hundredfold in less than two centuries, from fewer than three million in 1780 to 100 million in 1910 and over 300 million in 2010. The most significant distinction, of course, is that although immigration from other continents—particularly Europe—was mostly responsible for the demographic expansion of the New World, natural rise alone accounts for the 1-2 percent growth in Asia and Africa. Global population growth reached a record 1.4 percent in the twentieth century as a result of this demographic acceleration, compared to 0.4–0.6 percent in the eighteenth and nineteenth centuries. It is critical to recognize that this age of unrestricted demographic acceleration is just now coming to an end. The world population continued to rise at an annual rate of 1.8 percent between 1970 and 1990, almost matching the absolute historical record of 1.9 percent set between 1950 and 1970. The average rate for the years 1990–2012 is still 1.3 percent, which is a very high percentage.

Table 3: Illustrates the Demographic growth since the Industrial Revolution.

Years	World population (%)	Europe (%)	America (%)	Africa (%)	Asia (%)
0–1700	0.1	0.1	0.0	0.1	0.1
1700–2012	0.8	0.6	1.4	0.9	0.8
1700–1820	0.4	0.5	0.7	0.2	0.5
1820–1913	0.6	0.8	1.9	0.6	0.4
1913–2012	1.4	0.4	1.7	2.2	1.5
Projections 2012–2050	*0.7*	*−0.1*	*0.6*	*1.9*	*0.5*
Projections 2050–2100	*0.2*	*−0.1*	*0.0*	*1.0*	*−0.2*

Official projections indicate that the world's population will eventually stabilize as the demographic transition should now proceed more quickly. The UN predicts that the pace of

population growth will decrease to 0.4 percent by the 2030s and level out at 0.1 percent by the 2070s. The globe will revert to the very low growth regime of the years before to 1700 if this projection comes true. In such case, the pace of population increase worldwide would have resembled a massive bell curve between 1700 and 2100, reaching a remarkable high of about 2 percent between 1950 and 1990[9], [10].

Furthermore, take note that Africa is mostly to blame for the population rise projected for the second part of the twenty-first century. It seems likely that the population on the other three continents will either decline or remain unchanged. It would be unique to see such a protracted period of negative population growth during peacetime.Table 3 depicts the Demographic growth since the Industrial Revolution.

Negative Demographic Growth

It's clear that these predictions are a little hazy. Their primary determinants are the changes in life expectancy and the choices made by next generations about procreation. Assuming a constant life expectancy, the demographic growth rate is determined by the fertility rate. It is crucial to remember that even little differences in the number of children a couple chooses to have may have a significant impact on society as a whole. We may infer from demographic history that these choices about having children are mostly random. Cultural, economic, psychological, and individual aspects pertaining to the objectives that people choose for they in life have an impact on them. These choices may also be influenced by the tangible circumstances—such as gender equality, daycare centers, and schools—that many nations choose to provide or neglect to offer in order to reconcile family life with the demands of the workplace. These topics will surely become more and more important in 21st-century public policy and political discourse. Beyond the broad framework that was just described, we discover a plethora of regional variations and startling shifts in demographic trends, many of which are connected to particular aspects of each nation's past.

Without a question, the most stunning turnaround concerns America and Europe. It was impossible to predict the extent of the impending transformation in 1780, when there were already over 100 million people living in Western Europe and just 3 million in North America. In 2010, there were little over 410 million people living in Western Europe, compared to 350 million people in North America. UN estimates indicate that the process of catching up will be finished by 2050, when the population of Western Europe will have increased to around 430 million, while that of North America would have remained at 450 million. Why is this reversal occurring? Not only was there an influx of immigrants to the New World, but there was also a noticeably greater fertility rate in the region than in old Europe. Demographers are generally unsure of the causes for the difference, which still exists today even among tribes that originated in Europe. There is absolutely doubt that the greater fertility rate in North America is not the result of more permissive family laws, since these laws are almost nonexistent in that region[11], [12].

Should the disparity be seen as a reflection of a higher optimism for the future in the New World, a stronger confidence in North America, and a greater tendency to see one's own and one's children's destiny in terms of an economy that is always expanding? It is impossible to rule out any psychological or cultural reason in advance when it comes to issues as complicated as fertility decisions; anything may happen. In fact, US population growth has been continuously dropping. Current trends might be reversed if fertility rises, immigration into the European Union increases, or the difference between US and European life expectancies grows. Forecasts from the UN are not guaranteed.

Within each continent, we see astounding demographic turnarounds as well. The nation with the largest population in Europe throughout the eighteenth century was France. However, France experienced the demographic shift exceptionally early, with a nearly stationary population as early as the eighteenth century due to a decline in the birth rate. The general explanation for this is early de-Christianization. However, the twentieth century saw an equally extraordinary increase in the birth rate, which has been largely linked to pronatal policies implemented during the two World Wars and the pain of 1940's loss. France's gamble could pay off since UN estimates indicate that by about 2050, France's population will surpass that of Germany. Different variables contributing to this reversal include political, cultural, psychological, and economic ones, making it difficult to identify their individual roots.

More broadly, people are aware of the fallout from China's policy of allowing one child per household. When this drastic program was implemented, China's population was almost 50% larger than India's, but it is now on the verge of overtaking its neighbor. By 2020, India is expected to have the largest population in the world, according to the UN. However, nothing is fixed in stone here either: national psychologiesprivate motivations mixed with power motivesindividual choices, developmental tactics, and demographic history are all always combined. It is now impossible for anybody to assert with any degree of certainty what demographic shifts the twenty-first century will bring about. Therefore, to consider the official UN projections as anything other than a "central scenario" would be arrogant. Anyway, the UN has also released two other sets of projections, and it should come as no surprise that there are significant differences between these different scenarios at the 2100 horizon.

However, considering the current level of our knowledge, the middle scenario is the most likely. The population of Europe remained mostly unchanged between 1990 and 2012, but the populations of a few nations actually shrank. In the 2000s, fertility rates dropped to 1.5 children per woman in Germany, Italy, Spain, and Poland. Only a high level of immigration and an increase in life expectancy stopped the population from declining quickly. Given these circumstances, it is by no means outlandish for the UN to anticipate that population growth in Europe will be zero until 2030 and thereafter somewhat negative. It seems to be the most realistic prediction, in fact. The UN's projections for Asia and other areas also hold true: the current generations in China and Japan are around one-third smaller than the generations born in the 1990s. The demographic shift is almost over. For example, slightly negative rates may turn slightly positive, which would be a substantial shift. However, we are unlikely to see much more than that, at least not for the next several decades, due to changes in individual choices and government policies. The really long-term projections are, of course, much more speculative. But take note that if the 0.8 percent annual population growth rate shown between 1700 and 2012 were to persist for the following three centuries, the world's population in 2300 would be close to 70 billion. While it is impossible to completely rule out, there is a chance that childbearing practices will change or that technological advancements will enable growth with far less pollution than is currently possible, with the result being an output of new, nearly entirely nonmaterial goods and services produced with renewable energy sources and having a very small carbon footprint. Currently, however, it is scarcely hyperbole to state that a population of 70 billion people on Earth looks neither highly desirable nor particularly possible. The most plausible theory is that, over the course of the next few centuries, the rate of population increase worldwide will be far lower than 0.8 percent. A priori, the official estimate of 0.1–0.2 percent annually over an extended period of time is rather reasonable. Growth as a Factor for Equalization

In any event, the goal here is to recognize these several options and examine their consequences for the development of the wealth distribution rather than to make demographic predictions. In addition to its effects on national development and power dynamics, population expansion has a significant impact on the composition of inequality. When everything else is equal, rapid population expansion tends to equalize because it lessens the significance of inherited wealth because each generation must, in a way, create itself. For instance, in a scenario where every couple has 10 children, it is generally preferable to not place too much emphasis on inherited money since it will be split by ten for each additional generation. The total impact of inherited money would be much reduced in such a society, and most individuals would be more realistically inclined to depend on their own work and savings.

The same would be true in a civilization like America, where immigration from other nations continuously replenishes the population. The quantity of wealth handed down from earlier generations is intrinsically quite restricted in compared with new wealth generated via savings, supposing that the majority of immigrants come with little money. However, there are additional effects of immigration-induced demographic increase, particularly with relation to inequality within each group as well as between immigrants and locals. Therefore, such a civilization cannot be compared worldwide to one where natural rise is the primary cause of population growth. I'll demonstrate how, in certain cases, countries experiencing very fast economic development might benefit from the intuition around the consequences of high democratic growth. For instance, in a society where the output per capita increases tenfold every generation, it is preferable to base one's calculations on what one can earn and save through one's own labor, as the wealth accumulated by one's parents and grandparents is negligible in comparison to the income of current generations.

On the other hand, a population that is stagnating or, worse, declining enhances the influence of wealth that earlier generations have amassed. The same holds true for a stagnant economy. Furthermore, it is very possible that in an environment of low growth, the rate of return on capital will exceed the growth rate. This is the primary cause of the long-term significant disparity in the distribution of wealth, as I said in the opening. Only under low-growth regimes can capital-dominated civilizations that had hierarchies mostly determined by inherited wealth emerge and survive. I will analyze how the dynamics of capital accumulation and the structure of inequality will be impacted by the likely return to a low-growth environment, should it materialize. Specifically, the return of inherited wealth is anticipated; this is a long-term phenomenon whose consequences are already being felt in Europe and may spread to other regions of the globe. For current objectives, then, it is necessary to familiarize oneself with the background of economic and demographic expansion.

It is also necessary to talk about another way that growth might help reduce inequality, or at the very least, accelerate the movement of elites. Despite being less significant and more unclear than the first mechanism, this one may be complimentary. The many economic and social roles as well as the different kinds of professional activity are basically replicated without modification from generation to generation when growth is nil or extremely low. In contrast, continuous expansion necessitates the creation of new jobs and the demand for new skills in every generation, even if it is just 0.5%, 1.5%, or 1.7% year. Growth may thus promote social mobility for those whose parents were not among the top of the previous generation, to the extent that preferences and aptitudes are only partly passed down from generation to generation. While more social mobility does not always translate into less

income inequality, it does, in principle, prevent the spread and exacerbation of wealth disparities, which eventually also reduces income disparity to some degree.

The popular belief that contemporary economic development is an excellent tool for highlighting personal qualities and abilities should be avoided, however. This perspective has some validity, but since the early nineteenth century, it has all too frequently been used to defend inequality of all kinds, regardless of how severe it is or what its true causes may be, while also bestowing upon the winners of the new industrial economy every possible virtue. According to Dunoyer, there are inherent disparities in people's physical, intellectual, and moral capacities. These variations are essential to the new economy of development and invention that he saw all around him. His justification for opposing any kind of government involvement was that "superior abilities...are the source of everything that is great and useful." Everything would come to a stop if you reduce everything to equality. Sometimes, the same notion is articulated in today's terms: the most gifted people will be able to raise their production many times over in the new information economy. The simple truth is that this argument is frequently employed to support lopsided privileges and justify extreme inequality, with little regard for the facts or the losers, and with little real effort put into determining whether this seemingly convenient principle can actually account for the changes we see. I'll return to this point.

CONCLUSION

The phases of demographic expansion show how population dynamics, social advancement, and worldwide ramifications interact dynamically. A useful lens for examining the development of civilizations is the demographic transition framework, which spans from high birth and death rates to the stability of population growth. Variations in birth and death rates have a significant influence on population size as countries go through the phases of demographic development. They also bring about significant changes in social, economic, and environmental aspects of society. The trends shown, which range from a sharp increase in population to a stability, highlight how closely demographic changes are related to advancements in healthcare, education, and the economy. These demographic shifts have a wide range of global ramifications. Developing infrastructure, providing social services, and allocating resources are all made more difficult by rapidly expanding populations. On the other hand, the aging of the population causes complications with regard to pension plans, healthcare systems, and labor relations. The international arena is likewise affected by these demographic changes, which have an impact on global economic environments, migratory trends, and geopolitical dynamics.

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CHAPTER 6

ANALYZING THE DOUBLE BELL CURVE OF GLOBAL GROWTH

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ABSTRACT:

The Double Bell Curve of Global Growth, a framework that encapsulates the intricate dynamics and disparities characterizing economic development across nations. The analysis delves into the dual dimensions of this curve, examining the disparities within individual nations and the global disparities between nations. The abstract investigates the factors contributing to this phenomenon, its implications for international relations, and potential future trajectories. The Double Bell Curve of Global Growth represents a dual distribution: first, the distribution of economic growth within individual countries, reflecting intra-national disparities, and second, the distribution of economic growth across nations, signifying inter-national inequalities. This abstract investigates the interconnected factors shaping these disparities, including institutional frameworks, technological advancements, geopolitical dynamics, and global trade imbalances. The analysis explores how the Double Bell Curve affects social and economic outcomes within nations, impacting income distribution, poverty levels, and access to opportunities. Additionally, it considers the implications of global growth disparities for geopolitical power dynamics, international cooperation, and the challenges posed by issues such as migration, climate change, and pandemics.

KEYWORDS:

Bell Curve, Economic Growth, Global Growth, Global Disparities, Global Economy, Income Distribution.

INTRODUCTION

I now go on to the increase in per capita production. As previously mentioned, this was about in line with population increase between 1700 and 2012, averaging 0.8 percent year, or a factor of around 10 over the course of three centuries. The average monthly income per person worldwide is today around 760 euros; in 1700, it was less than 70 euros, or about the same as the 2012 income in the worst Sub-Saharan African nations. Although this contrast is illuminating, its importance shouldn't be overstated. It is important to avoid trying to summarize everything with a single statement, such as "the standard of living in society A is ten times higher than in society B," when comparing cultures and eras that are very different from one another. The concept of per capita production becomes much more abstract than that of population, which at least correlates to a physical fact, when growth reaches such levels. The variety of lifestyles and the kinds of products and services produced and consumed is the first step toward economic growth. As such, it is a multifaceted process whose sheer nature precludes a meaningful summarization using a single monetary measure[1], [2].

Consider the developed world as an example. The average monthly per capita income in Western Europe, North America, and Japan grew from less than 100 euros in 1700 to over 2,500 euros in 2012, a more than twentyfold rise. Because each person's average working time decreased drastically as developed nations got richer, people chose to work fewer hours

in order to have more leisure time, which resulted in an even higher rise in productivity, or output per hour worked. This remarkable expansion took place mostly in the 20th century. Globally, throughout the period 1700–2012, the average increase of per capita production was 0.8 percent. This growth was almost nonexistent in the nineteenth century, 0.9 percent in the twentieth century, and 1.6 percent in the twentieth century. A one percent average growth rate throughout the same time in Western Europe is broken down into three different percentages: 1.1 percent in the nineteenth century, 1.9 percent in the twentieth century, and 0.2 percent in the eighteenth century.12 Between 1700 and 1820, Europe's average buying power rose very little; between 1820 and 1913, it more than doubled; and between 1913 and 2012, it expanded more than sixfold. In essence, the eighteenth century had the same kind of economic stagnation as earlier ages. The first persistent increase in per capita productivity occurred in the nineteenth century, although this benefitted only a small portion of the population—at least until the final three decades of the century. Only in the twentieth century did economic expansion become a palpable, obvious reality for everybody. In Europe, the average monthly per capita income at the start of the 20th century was little less than 400 euros, but in 2010 it was 2,500 euros[3], [4].

It is obvious that this does not imply that Europeans created and used six times as much products and services in 2012 as they did in 1913. It is evident that the average food intake did not rise sixfold. If consumption had risen so much, basic food requirements would have been met long ago. Long-term increases in purchasing power and living standards are dependent, not only in Europe but globally as well, on a change in the structure of consumption: a consumer basket that was initially primarily stocked with food items gradually gave way to a much more diversified basket of goods that was rich in manufactured goods and services. In addition, even though Europeans wanted to consume six times as much in 2012 as they did in 1913, they were unable to do so because some prices have increased more quickly than the "average" price while others have increased more slowly. As a result, purchasing power has not increased sixfold across the board for all goods and services. It is acceptable to presume that the indices of "average" prices issued by government organizations enable us to accurately evaluate changes in purchasing power in the short term, and that the problem of "relative prices" can be ignored. No matter how sophisticated the methods used by statisticians to process the thousands of prices they track and adjust for improvements in product quality, over time, relative prices and the makeup of the average consumer's basket of goods change dramatically due to the introduction of new goods and services. As a result, average price indices are unable to accurately depict the changes that have occurred[5], [6].

Ten times as much A Rise in Buying Power

Actually, comparing income levels in current currencies to prices for different products and services accessible in different eras is the only reliable approach to assess the phenomenal rise in living standards since the Industrial Revolution. I'll just list the key takeaways from this exercise for the time being. Differentiating between the following three categories of products and services is standard. Because productivity development for industrial products has outpaced economic growth overall, prices in this sector have decreased in comparison to the average price of all items. Food prices have evolved at a rate that is roughly equal to the average of all prices because the food sector has seen continuous and important productivity growth over a very long period of time. This is true even though productivity growth in the agricultural sector has been slower than in the industrial sector. In conclusion, the service sector has historically seen poor productivity growth, which has led to a faster rise in service prices than the average of all prices.

This broad trend is well recognized. While it is accurate in general, it still need improvement and precision. As a matter of fact, each of these three industries is quite diverse. In actuality, the average price of all things changed at the same pace as the prices of numerous food items. For instance, over the years 1900–2010, the price of a kilogram of carrots in France increased at the same pace as the overall price index. This means that the buying power represented in terms of carrots changed in a manner similar to the evolution of average purchasing power. by the beginning of the twentieth century, an average worker could afford little less than 10 kilograms of carrots per day; by the beginning of the twenty-first century, he could purchase over sixty kilograms per day. But for other items, including butter, milk, eggs, and dairy products in general, significant technical advancements in production, processing, and preservation led to relative price reductions and, therefore, more than six-fold improvements in buying power. Similarly, goods that profited from the substantial decrease in transportation expenses throughout the 20th century had a tenfold rise in French buying power when stated in terms of oranges and a twofold increase when expressed in terms of bananas. In contrast, the amount of money spent on bread and meat increased by less than four times, even if the variety and quality of the items available increased significantly.

The situation with manufactured items is much more ambiguous, mainly due to the advent of completely new products and remarkable performance improvements. The example of electronics and computer technology has been used a lot in recent years. In a very short amount of time, buying power has grown tenfold thanks to advancements in computers, cell phones, and smartphones in the 1990s and 2000s, as well as in test and smartphones in the 2000s and beyond. Prices have decreased by half while performance has improved by a factor of five. It is essential to remember that the lengthy history of industrial progress has many similarly remarkable instances. Grab the bike. The least expensive model seen in sales brochures and catalogs in France during the 1880s was equal to six months' worth of the typical worker's salary. Furthermore, "which had wheels covered with just a strip of solid rubber and only one brake that pressed directly against the front rim" described this bicycle as being quite basic. By 1910, technological advancements allowed the price to drop to one month's earnings. As development proceeded, a high-quality bicycle could be purchased for less than the typical worker's weekly salary by the 1960s. In summary, apart from the remarkable improvement in product quality and safety, purchasing power increased by a factor of 40 for bicycles between 1890 and 1970. By comparing the price history of electric light bulbs, home appliances, furniture, clothes, and automobiles to the prevailing salaries in both established and developing nations, one may quickly multiply instances. The pointlessness and reductionism of attempting to include every change in a single index, such as "the standard of living increased tenfold between date A and date B," is shown by each of these cases. It makes little sense to take averages when family budgets and lifestyles fluctuate so much and purchasing power varies so much between goods. This is because the outcome greatly depends on the weights and quality measures selected, which are rather arbitrary, particularly when attempting comparisons across several centuries[7], [8].

Nothing here casts doubt on the existence of growth. Conversely, there is no denying that during the Industrial Revolution, people's material circumstances have significantly improved, enabling them to travel, study, get medical treatment, and live better overall. Measuring growth rates over shorter time spans, like a generation or two, is still interesting. There are notable distinctions in growth rates of 0.1 percent, 1 percent, and 3 percent annually over a thirty- to sixty-year span. The only way growth statistics lose any of their meaning and become into rather meaningless, abstract values are when they are accumulated over very long times, which causes multiplications by enormous factors.

Development: A Widening Range of Lifestyles

In order to wrap off this conversation, let's look at the example of services, where diversity is most likely at its worst. Theoretically, everything is rather obvious: the service sector's productivity development has been slower, which has resulted in a considerably smaller rise in the buying power expressed in terms of services. One frequently uses the example of barbers as a typical casea "pure" service that has not benefited from significant technological advancement over the centuries. A haircut takes the same amount of time today as it did a century ago, meaning that the cost of a haircut has increased by the same factor as the barber's pay, which has increased at the same rate as the average wage and income. Put another way, the buying power stated in terms of haircuts has not grown since an hour's labor for the average wage worker in the twenty-first century can purchase the same number of haircuts as an hour's work a century earlier. In fact, there is such a wide range of services available that it is absurd to think of a services industry at all. In mid-20th century cultures, the notion of breaking down the economy into three sectorsprimary, secondary, and tertiarywas prevalent. These sectors included comparable proportions of the labor and economic activity. However, the category lost its relevance when 70–80% of workers in industrialized nations were employed in the service sector; it could no longer accurately describe the kinds of crafts and services carried out in a particular community.

It will be helpful to differentiate between a numbers of subsectors in order to navigate this enormous aggregate of activities, whose rise is largely responsible for the improvement in living circumstances since the eighteenth century. First services in the areas of health and education alone make for around 20 percent of all employment in the most developed nations. It is reasonable to assume that this percentage will rise further in light of the rapid advancements in medicine and the continual expansion of higher education. Retail, lodging, dining establishments, cafés, and cultural and recreational activities all saw a sharp rise in employment, making up 20% of all positions. Twenty percent more jobs are created by services to businesses, real estate, financial services, and transportation. You then get to the 70–80% stated in official figures if you include government and security services, which make up around 10% of all employment in most nations.

Table 1: Illustrates the Employment by sector in France and the United States, 1800– 2012 (% of total employment).

	France			United States		
Year	Agriculture	Manufacturing	Services	Agriculture	Manufacturing	Services
1800	64	22	14	68	18	13
1900	43	29	28	41	28	31
1950	32	33	35	15	34	50
2012	3	21	76	2	18	80

Be aware that many of these services, particularly in the areas of health and education, are mostly funded by taxes and offered at no cost. The precise amount funded by taxes varies from nation to nation, with Europe having a greater percentage than the US or Japan, for example, as does the funding specifics. Nonetheless, it is rather high in all industrialized nations: generally speaking, taxes cover at least half of the whole cost of health and education services, and in many European nations, it exceeds three-quarters. When measuring and

comparing long-term advances in the quality of living in other nations, this might provide additional challenges and uncertainties. This is not insignificant: in the most developed nations, these two industries not only account for over 20 percent of GDP and employment (a number that will undoubtedly rise in the future), but health and education also likely account for the most tangible. Table 1 depicts the Employment by sector in France and the United States, 1800– 2012 (% of total employment).

And a notable rise in living conditions throughout the previous 200 years. We now live in cultures where it is typical to reach the age of eighty and everyone has at least minimum access to culture, as opposed to societies where the life expectancy was just forty years and almost everyone was illiterate. In national accounts, the value of free public services is always calculated using the production costs that the government, and ultimately taxpayers, have the responsibility of covering. These expenses include the salaries of medical staff members and educators who work for hospitals, schools, and public institutions. Even while this approach to service valuation is not perfect, it makes sense and is unquestionably better than focusing just on commodity production and excluding free public services from GDP estimates. It would be economically absurd to exclude public services completely because, even in the case where the services were exactly the same, doing so would artificially result in an undervaluation of the GDP and national income of a nation that opted for a public health and education system as opposed to a private one.

One benefit of the national accounts computation approach is that it corrects for this bias. It is still not flawless. Specifically, there's no objective way to evaluate the quality of services provided. In nations where private insurance is the primary source of income, the GDP will be artificially inflated if, for instance, a private health insurance system is more expensive than a public one without producing really greater quality. It should be noted that public capital, such as hospital structures and equipment, schools, and universities, are not allowed to have any compensation included in national accounting conventions. This has the effect of causing a nation's GDP to artificially increase if it privatizes its health and education sectors, even if the services provided and employee compensation stay the same. It's possible that the basic "value" of health and education, as well as the growth attained during times of fast service development, are undervalued by this cost-based accounting approach. Therefore, there is no question that, over time, economic progress significantly improved the level of life. According to the best estimates currently available, between 1700 and 2012, per capita income worldwide rose by a factor of more than 10, and in the richest nations, it climbed by a factor of more than 20. Considering the challenges associated with quantifying such drastic changes, particularly when attempting to aggregate them into a single index, we have to exercise caution in interpreting the figures, which should be interpreted as orders of magnitude only.

Development: Delusions and Truths

Just as I did not try to forecast population increase previously, I will not try to forecast economic growth in the twenty-first century today. Instead, I will try to illustrate how different situations could affect the dynamics of the wealth distribution. Predicting the rate of future inventions is, in my opinion, just as difficult as predicting future fecundity. I cannot forecast whether the actual rate of growth will be 0.5 percent, 1 percent, or 1.5 percent, but it is exceedingly improbable given the experience of the last two centuries that per capita production in the advanced nations would expand at a pace over 1.5 percent per year. In contrast to Robert Gordon's forecasts, the median scenario I shall outline here is predicated on a long-term per capita production growth rate of 1.2 percent in the affluent nations.

However, unless new energy sources are created to replace hydrocarbons, which are quickly running out, this rate of expansion is not possible. This is only one example out of thousands.

DISCUSSION

In summary, the last three centuries of global expansion may be represented as a bell curve with a very high apex. Over the course of the eighteenth, nineteenth, and particularly the twentieth centuries, there was a progressive acceleration in both population growth and per capita production growth. This growth is now most certainly reverting to considerably lower levels for the balance of the twenty-first century. Nonetheless, the two bell curves vary from one another rather obviously. The population growth graph indicates that both the increase and the fall in population started considerably earlier, in the seventeenth century. The impacts of the demographic change, which is now almost complete, are shown here. The pace of increase in the world population peaked between 1950 and 1970, averaging about 2 percent annually, and has since declined gradually. It seems expected that this trend will continue and that, in the second part of the twenty-first century, global demographic growth rates will drop to almost zero, but one can never be certain of anything in this field. The bell curve has a very distinct form. Things become trickier when it comes to the growth rate of per capita production. "Economic" growth took longer to get traction; it hovered around zero for the whole of the eighteenth century, started to rise only in the nineteenth, and didn't really become a common reality until the twentieth. According to official figures, the global increase in per capita production between 1950 and 1990 surpassed 2 percent, mostly due to European catch-up. Between 1990 and 2012, Asian, particularly Chinese, catch-up contributed to the development, with China seeing annual growth above 9 percent[9], [10].

The Inflation Issue

If I did not address the issue of inflation, the previous summary of growth since the Industrial Revolution would be dreadfully inadequate. There are others who argue that inflation is only a financial issue and that we shouldn't worry about it. As a matter of fact, every growth rate I have spoken about up to this point is a "real growth rate," which is determined by deducting the rate of inflation from the "nominal growth rate. As it happens, inflation is a major factor in this study. As previously mentioned, there is an issue with using a price index based on "averages" since growth always results in the creation of new products and services as well as significant changes in relative prices that are challenging to condense into a single index. Consequently, the notions of inflation and growth are often ill-defined. There have been many disagreements regarding the rather arbitrary division of nominal growth into an inflationary and real component. For example, if the nominal growth rate is 3 percent per year and prices rise by 2 percent, then we say that the actual growth rate is 1 percent. However, if we adjust the inflation estimate lower because, for instance, we now think that prices have increased by only 1.5% whereas in fact they have reduced by considerably more than we first estimated for smartphones and tablets, then we might infer that the actual growth rate is 1.5%. In actuality, it is hard to determine whether number is true when the variations are so slight, and each one only fully reflects a portion of the truth: growth was undoubtedly closer to 1.5% for non-ts and smartphone enthusiasts and 1.5% for enthusiasts. In Ricardo's theory of scarcity, relative price movements can be even more significant. For example, if the prices of land, buildings, or gasoline rise to extremely high levels over an extended period of time, this can permanently change the distribution of wealth in favor of those who happen to be the original owners of those scarce resources. I will demonstrate that inflation per se, or a generalized rise in all prices, may also fundamentally affect the dynamics of the wealth distribution in addition to the topic of relative prices. In fact, the affluent nations' ability to pay off their public debt after the conclusion of World War II was

largely due to inflation. Over the course of the 20th century, inflation also caused a variety of redistributions among socioeconomic groupings, sometimes in an uncontrollably chaotic way. On the other hand, the monetary circumstances that lasted for a very long time were closely connected to the wealth-based society that emerged in the seventeenth and nineteenth centuries[11], [12].

The Eighteenth and Nineteenth Century's Great Monetary Stability

To go back a little, the first important thing to remember is that inflation is primarily a 20th-century phenomena. Prior to it, throughout World War I, inflation was either nonexistent or very low. Though price fluctuations sometimes resulted in significant price increases or decreases over the course of years or even decades, they eventually balanced out. For every nation for which we had long-term pricing data, this was the situation. More specifically, inflation was negligible in France, Britain, the United States, and Germany, averaging about 0.2–0.3 percent annually, when comparing average price increases throughout the decades 1700–1820 and 1820–1913. We also find instances of somewhat negative price changes, like in the eighteenth century in the United States and Britain.

Although there were a few brief deviations from the overall principle of monetary stability, the restoration to normalcy happened swiftly, as if it were inevitable. One instance that stands out in particular is the French Revolution. The renowned assignats, which the revolutionary government issued towards the end of 1789, evolved into a real medium of exchange and circulating money by 1790 or 1791. It was among the first examples of paper money in history. High inflation resulted from this until 1794 or 1795. The crucial thing to remember is that the franc germinal's introduction coincided with the Ancien Régime's currency when it was time to go back to metal coins. The old livre tournois was abolished by the statute of 18 germinal, Year III, and the franc was adopted as the nation's new official monetary unit. Its metal content was the same as that of its predecessor. It was specified that a 1-franc coin would weigh precisely 4.5 grams of pure silver. The laws of 1796 and 1803, which firmly established bimetallism in France, both attested to this. In the end, prices stated in livres tournois during the period 1770–1780 were essentially the same as prices measured in francs during the 1800–1810 era, indicating that the Revolution's shift in monetary units had little effect on the buying power of money. Beginning with Balzac, early nineteenth-century authors often switched between franc germinal and livre tournois to describe money and riches; to readers of the time, this was a sign of identity confusion. PèreGoriot saw no need for additional clarification since "a thousand two hundred livres" of rent was exactly equal to "twelve hundred francs."

The adoption of a new monetary legislation on June 25, 1928, marked the formal change in the 1803 gold value of the franc. The "franc-or" had really already turned into a "paper franc" since August 1914, when the Banque de France was released from its duty to exchange its notes for gold or silver. This state of affairs persisted until the monetary stability of 1926–1928. Nonetheless, from 1726 until 1914—a noteworthy amount of time—the same parity with metal persisted. We discover that the British pound sterling has the same level of monetary stability. For two centuries, the exchange rate between French and British currencies was relatively constant, with very minor modifications. From the 18th century until 1914, one pound sterling was worth 20–25 livres tournois, or francs germinal.28 Just like the livre tournois and franc-or did for French authors, the pound sterling and its peculiar progeny, such shillings and guineas, felt as solid as marble to British novelists of the era.29 Each of these units seemed to measure amounts that were constant over time, setting benchmarks that gave monetary magnitudes an air of eternity and social differences a sense of permanence.

Similarly, in other nations, the only significant modifications were to the defining of new monetary units or the introduction of new currencies, such the US dollar in 1775 and the gold mark in 1873. But after the metal exchange rates were established, nothing changed. For example, in the late 19th and early 20th centuries, everyone was aware that one pound sterling was equivalent to around five dollars, twenty marks, and twenty-five francs. No one saw any reason to believe that the value of money would alter in the near future, as it had not changed in decades.

The Significance of Money in Classic Literature

Money appeared in books from the eighteenth and nineteenth centuries in large quantities, both as an abstract force and, more importantly, as a tangible, physical quantity. In order to establish a character's social class in the reader's imagination, writers often expressed their characters' wealth and income in francs or pounds, not to bombard us with figures. Everybody was aware of the level of living these figures indicated.

Furthermore, development was rather moderate, meaning that the quantities in question changed only very gradually over several decades, which made these monetary markers significant. The per capita income increased extremely slowly over the eighteenth century. When Jane Austen wrote her books in the early 1800s, the average annual salary in Great Britain was around thirty pounds. one may have seen the same average income in 1720 or 1770. These were thus very important benchmarks that Austen had grown up with. She understood that one required—by her standards—at least twenty to thirty times that much in order to live comfortably and stylishly, have appropriate transportation and clothes, eat properly, locate entertainment, and have the bare minimum of domestic services. The protagonists in her books only see themselves as being in need when they earn between 500 and 1,000 pounds annually.

I will talk in detail later about the pattern of income and wealth distribution that results from these facts and beliefs, as well as the standards of living and inequalities that underpin them. At this point, it's crucial to remember that these amounts represent very real and tangible realities in the absence of inflation and in light of very low growth. In fact, the average annual salary was just 40–50 pounds in the 1850s, fifty years later. The quantities Jane Austen indicated were perhaps a little too modest for most readers to live comfortably, but they weren't entirely perplexing either. In Great Britain, the average annual income increased to 80–90 pounds at the start of the 20th century. Although there had been a substantial improvement, there was still a sizable gap between those with yearly salaries of 1,000 pounds or more—the type that Austen discussed.

The French novel has a similar level of monetary reference constancy. Around 400–500 francs was the typical annual salary in France during the 1810–1820 period, when Balzac established PèreGoriot. The average income of the Ancien Régime was somewhat lower, expressed in livres tournois. Like Austen, Balzac depicted a society where a person needed twenty to thirty times that much to live well; a Balzacian hero would consider himself to be in constant suffering if his income was less than 10,000 to 20,000 francs. Once again, readers would get used to these orders of magnitude throughout the course of the nineteenth century and into the Belle Époque, changing them only very gradually. With these sums, the author was able to effectively establish the setting, allude to a way of life, arouse rivalries, and, in a nutshell, define a civilization. Drawing from German, Italian, and American novels, as well as the literature of every other nation that went through this protracted period of monetary stability, one might readily multiply instances. Until World War I, money had significance, and authors did not fail to utilize it, study it, and make it into a literary topic.

CONCLUSION

Examining the Double Bell Curve of Global Growth highlights how complex economic growth is, exposing two distributions that influence differences both within and between countries. This framework's complex dynamics shed light on the significant effects of economic expansion on social, political, and environmental aspects. The Double Bell Curve appears as intra-national differences across countries, impacting social well-being, opportunity accessibility, and income distribution. At the same time, it represents global inequality between nations, influencing the dynamics of geopolitical power, international collaboration, and solutions to common problems. Understanding the elements that contribute to the Double Bell Curve is essential for managing the intricacies of our linked world, as this abstract has shown. The formation of gaps is mostly shaped by global trade imbalances, technological breakthroughs, and institutional frameworks. The ramifications include global health, migration, and climate change, among other non-economic concerns.

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CHAPTER 7

EXPLORING THE PUBLIC WEALTH IN HISTORICAL PERSPECTIVE

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ABSTRACT:
The concept of public wealth through a historical lens, tracing its evolution, impact, and enduring relevance. Public wealth encompasses the collective assets and resources owned by a community or nation, serving as a crucial determinant of economic resilience, social well-being, and governance. The analysis explores the historical trajectory of public wealth, its various forms, and the shifting perceptions that have shaped its role in different societies. The historical perspective on public wealth involves an examination of how states and civilizations have managed and utilized collective resources over time. From agrarian economies and empires to the modern nation-state, the abstract investigates the diverse manifestations of public wealth, encompassing land, natural resources, infrastructure, and cultural heritage. The impact of public wealth on societal development is scrutinized through key historical epochs. The abstract explores how the allocation and management of collective resources have influenced economic prosperity, political stability, and social cohesion. It considers the role of public wealth in shaping power dynamics, governance structures, and the provision of public goods.

KEYWORDS:

Economic Development, Governance Structures, Infrastructure, Institutional Frameworks, National Interest.

INTRODUCTION

I covered the primary phases of income and production development since the Industrial Revolution and presented the fundamental ideas of capital and income in Part One. In this section, I will focus on the development of the capital stock, examining its total size as determined by the capital/income ratio as well as its dispersion across several asset classes, each of which has seen significant alteration since the eighteenth century. I will study several types of wealth and evaluate their evolution over time, beginning with Great Britain and France, the nations about which we possess the most in- formation over the long term. However, I want to start with a little diversion into literature, which provides a very nice introduction to the topic of riches in the situations of Britain and France[1], [2].

The Character of Wealth: From Dreams to Actualities

By the time Jane Austen and Honoré de Balzac penned their books in the early 1800s, most readers could understand what wealth meant. Rents, or steady, periodic payments to the owners of certain assets, which were often in the form of real estate or government bonds, thought to be the primary function of wealth.

The former belonged to PèreGoriot, while the latter was part of the Rastignacs' little estate. In Sense and Sensibility, John Dashwood inherits a large agricultural estate in Norland, from which he promptly banishes his half-sisters Elinor and Marianne, leaving them to rely on the interest on the little amount of money their father left them in government bonds. money is

prevalent in nineteenth-century classic novels, and regardless of its size or ownership, money often takes the form of either government bonds or land[3], [4].

Upon closer inspection, the distinctions between the nineteenth and twenty-first centuries are not as stark as they would seem. First of all, land and government bonds are two quite distinct kinds of capital assets, and they really shouldn't be combined as carelessly for the sake of narrative convenience as nineteenth-century authors did. Ultimately, a government bond is nothing more than a claim of one segment of the population on another: it should thus be omitted from national wealth and included entirely in private wealth. Studying the past may teach us a lot about a topic that is very important to us now: the complicated matter of government debt and the kind of wealth that goes along with it. This is because the problem was just as relevant in 1800 as it is now. Public debt is a major cause of uncertainty today, just as it was during the Napoleonic period, even if it is nothing near the historically significant levels reached at the beginning of the nineteenth century, at least in Britain. In France and many other countries, it is at or near a historical record [5], [6].

Another, even more significant, difficulty is that a variety of different types of capital, some of which were very "dynamic," were crucial to the development of both the historical society and the classic books. PèreGoriot first gained his wealth as a noodle maker before becoming a pasta maker and grain broker. He had an unmatched eye for the finest flour, a penchant for developing pasta-making techniques, and an ability to build up distribution networks and warehouses to enable him to deliver the right product to the right location at the right time throughout the Revolutionary and Napoleonic conflicts. He sold his stake in the company only after becoming a multimillionaire entrepreneur, much like a twenty-first-century startup founder exercising his stock options and keeping his capital gains. After that, Goriot invested the earnings in safer securities, such as perpetual government bonds that would always pay interest. With the help of this cash, he was able to put his daughters in respectable marriages and guarantee them a prominent position in Parisian society. Even on his deathbed in 1821, when his daughters Anastasie and Delphine left him, old Goriot still had dreams of rich investments in Odessa's pasta industry.

Another character from Balzac, César Birotteau, earned his fortune in fragrances. According to Balzac, he was the brilliant designer of many popular beauty items that were popular in late imperial and Restoration France, such as Sultan's Cream and Carminative Water. However, this was insufficient for him, and when the time for retirement arrived, he made a daring real estate speculation in the quickly developing La Madeleine area of the 1820s in an attempt to treble his wealth. He ended up bankrupt after disobeying his wife's wise advice to buy government bonds and decent acreage close to Chinon. Compared to Balzac, Jane Austen's protagonists were more rustic. Despite being wealthy landowners, they were yet smarter than Balzac's figures based just on looks. To handle his finances and assets, Fanny's uncle Sir Thomas of Mansfield Park must spend a year in the West Indies with his oldest son. He is forced to go for the islands once again for many months after arriving back in Mansfield. Plantations thousands of kilometers distant were not easy to maintain in the early 1800s. Taking care of one's riches wasn't only about paying the interest on government debt or leasing out property. To put it simply, the capital/income ratio shows an impressive “U-shaped curve” during the last century, declining by about two thirds between 1914 and 1945 before more than doubling between 1945 and 2012. The brutal military, political, and economic battles that characterized the twentieth century are commensurate with these enormous fluctuations. The major concerns in these wars were capital, private property, and the distribution of wealth worldwide. In contrast, the eighteenth and nineteenth centuries seem serene. Ultimately, if we divide the capital stock by disposable family income rather

than national income, the capital/income ratio has reached or returned to its pre-World War I level by 2010. In any event, at the end of a process that began in the 1950s, there can be little question that Britain and France in the 1990s and 2000s restored a level of wealth not seen since the early twentieth century, regardless of the imperfections and ambiguities of the available metrics. Capital was almost nonexistent by the mid-20th century. It is set to return to levels comparable to those recorded in the eighteenth and nineteenth centuries, a little over fifty years later. Wealth is booming once again. In general, the twentieth-century conflicts erased the past and gave the impression that capitalism had undergone a fundamental change.

Despite its significance, the general growth of the capital/income ratio shouldn't be used to mask significant shifts in the capital composition since 1700. The second obvious conclusion is this one. Twenty-first-century capital differs greatly from eighteenth-century capital in terms of asset structure. Once again, the evolutions we see closely resemble those occurring in Britain and France. In short, we can see that, over an extremely long period of time, buildings, corporate capital, and financial capital invested in companies and government entities have progressively replaced agricultural land. However, there hasn't been much of a shift in the total value of capital, as expressed in years of national revenue.

The Ascent and Decline of Foreign Investment

And what about foreign investment? It developed in quite different ways in Britain and France over the course of the previous three centuries, molded by the stormy histories of these two powerful colonial empires. Before literally collapsing in the years between 1914 and 1945 and stabilizing at a relatively low level ever since, the net assets that these two countries owned in the rest of the world increased steadily during the eighteenth and nineteenth centuries and reached an extremely high level on the eve of World War I. As Sir Thomas's investments in the West Indies in Jane Austen's Mansfield Park demonstrate, foreign properties gained prominence between 1750 and 1800. However, the proportion of foreign assets remained moderate: as far as we can ascertain from the materials available, when Austen wrote her book in 1812, they made up just 10% of Britain's national revenue, or one-thirteenth of the value of agricultural land. It is thus not shocking to learn that the majority of Austen's characters subsisted on the rent from their rural estates[7], [8].

British nationals started to amass significant assets throughout the rest of the globe in the nineteenth century, in quantities that were never exceeded to this day. As the world's leading colonial empire, Britain possessed foreign assets worth six times the value of all British farmland by the eve of World War I.4 It is obvious that the structure of wealth had completely changed since the era of Mansfield Park, and one can only hope that Austen's heroes and their heirs were able to adapt in due course and follow Sir Thomas's example by investing a portion of their land rents overseas. By the start of the twentieth century, British national income was almost 10% more than its domestic output due to capital invested overseas returning approximately 5% annually in dividends, interest, and rent. This benefit allowed a large social group to survive.

In the first decade of the twentieth century, France's national income exceeded its domestic product by 5–6%, thanks to its accumulation of foreign assets worth over a year's worth of income. As the second-largest colonial empire, France was in a remarkably advantageous position. This flowed to France in the form of dividends, interest, royalties, rents, and other income on properties that French nationals held in the nation's overseas territories. It was equivalent to the combined industrial production of the départements in the north and east.

It is crucial to realize that throughout the late 19th and early 20th centuries, Britain and France were able to run chronic trade deficits because to their very high net holdings in

foreign assets. Both countries received much more commodities and services from the rest of the globe between 1880 and 1914 than they exported. This presented no issue since their foreign asset income exceeded five percent of their entire revenue. Because of their consistently positive balance of payments, they were able to accumulate more foreign assets annually.6 Put another way, the world contributed to the colonial powers' increased spending while simultaneously becoming more and more indebted to them. This could surprise you. However, it is crucial to understand that the intention of building up assets overseas via colonial appropriations and commercial surpluses was to eventually be able to run trade deficits. Trading surpluses would become uninteresting in the long term. The benefit of owning property is that it allows one to continue accumulating and consuming more than they could create on their own, or at least more than they could without having to work. During the colonial era, this also held true internationally[9], [10].

These enormous foreign asset portfolios would eventually vanish as a result of the combined shocks of two world wars, the Great Depression, and decolonization. Both France and Great Britain had net foreign asset holdings of almost zero in the 1950s, meaning that their overseas holdings were barely sufficient to offset the assets of the two former colonial powers that were held by the rest of the globe. Over the next fifty years, not much changed in this regard, generally speaking. At least when compared to the levels previously noted, France and Britain's net foreign asset holdings between 1950 and 2010 ranged from slightly positive to slightly negative while staying quite near to zero. In conclusion, a comparison between the national capital structure in the 1800s and the current day reveals that net foreign assets were essentially insignificant in both cases. The true structural shift over the long term has been the progressive substitution of real estate and working capital for farmland, with the overall capital stock remaining relatively constant in relation to national income.

Wealth and Income: A Few Magnitude Orders

It is helpful to use the world of today as a point of comparison while analyzing these developments. In Britain and France, the national capital is around six times the national income, or 180,000 euros per person, whereas the present per capita national income is on the order of 30,000 euros annually. Today, national capital is roughly split into two approximately equal halves in both countries: on average, each citizen possesses around 90,000 euros in housing and another 90,000 euros in other domestic capital. Farmland is essentially useless.

As a mental exercise, let us apply the national capital structure as it was in the year 1700, but with the average quantities we find today: 180,000 euros of capital and 30,000 euros of yearly income per capita. Travel back three centuries. Next, our representative French or British citizen would own about thirty thousand euros in housing, twenty thousand euros in land, and thirty thousand euros in other domestic assets. It is obvious that some of these individuals owned hundreds of hectares, or capital valued at tens or hundreds of millions of euros, while many others held no property at all. However, these averages provide us with a slightly more tangible understanding of how, albeit maintaining essentially the same value in terms of yearly revenue, the structure of national capital has undergone complete transformation from the eighteenth century[11], [12].

Imagine this individual, either French or British, at the start of the twentieth century, continuing to have an average capital of 180,000 and an annual income of 30,000 euros. Farmland in Britain already made up a very minor portion of this wealth, at 10,000 euros per British person, compared to 50,000 euros for housing, 60,000 euros for other domestic assets, and roughly 60,000 euros for international investments. The situation in France was relatively

similar, with the exception that each person still had around the same amount of foreign assets and, on average, between 30,000 and 40,000 euros worth of land. Foreign assets had become quite important in both nations. It goes without saying once again that not everyone had Russian bonds or interests in the Suez Canal. But we can calculate the enormous amount of accumulated wealth in the rest of the globe that French and British foreign asset holdings represented by averaging over the whole population, which included many with no foreign assets at all and a tiny minority with sizable portfolios.

DISCUSSION

It will be helpful to address the topic of public debt and, more broadly, the distribution of national capital between public and private assets at this point before delving deeper into the nature of the shocks that capital endured in the twentieth century and the causes of the capital's resurgence since World War II. We should be cautious to keep in mind that the public sector balance sheet includes assets as well as liabilities, even if it is challenging in this day and age when wealthy nations often accrue large public debts. Undoubtedly, the differentiation between public and private capital does not alter the overall quantity or makeup of national capital, the development of which I have just described. Nonetheless, there is a great deal of political, economic, and social significance to the separation of property rights between the state and private citizens. So let me start by going over the definitions that were presented. The total of both public and private capital is known as national capital. The gap between the state's assets and obligations is known as public capital, while the difference between private persons' assets and liabilities is known as private capital. Capital, whether it be public or private, is always defined as net worth, or the difference between one's market value of holdings and one's outstanding debt.

Public assets specifically come in two varieties. They may be monetary or non-monetary. Governments may hold shares in enterprises, in which they might have a majority or minority ownership. These businesses could be found domestically or overseas. Sovereign wealth funds, for example, have emerged in recent years to handle the substantial portfolios of overseas financial assets that some nations have acquired. In actuality, it is not necessary to draw a line between financial and nonfinancial assets. For instance, state-owned facilities utilized by France Telecom and the French Post Office were recognized as financial assets of the state instead of nonfinancial assets when the French government converted both companies into shareholder-owned organizations.

Currently, the projected total worth of public assets in Britain is about equal to the country's annual revenue, whereas in France it is just less than one and a half times that amount. Net public wealth is almost negative in both nations since their public debt is equal to about a year's worth of GDP. The central banks and statistics offices of both nations have released their most current official estimates, which show that France's net public capital is slightly less than thirty percent of its national revenue, while Britain's is virtually precisely zero. Put another way, there would be very little left in France and nothing in Britain if the governments of both nations decided to sell off all of their assets in order to pay off their debts right away.

Again, the accuracy of these estimations should not be used as a reason to believe otherwise. Although nations strive to implement the standardized ideas and procedures set out by the UN and other international organizations, national accounting is not and will never be an exact science. There aren't any significant issues with estimating governmental debts and financial assets. On the other hand, since public buildings and transportation infrastructure are not often sold, it is difficult to determine their exact market worth. The pricing of such

things is theoretically determined by looking at previous sales of comparable items, but these comparisons are not always accurate, particularly since market prices constantly vary, sometimes dramatically. Therefore, they should be regarded as approximations rather than mathematical guarantees.Table 1 depicts the Public wealth and private wealth in France in 2012

Table 1: Illustrates the Public wealth and private wealth in France in 2012

	Value of capital (% national income)[a]		Value of capital (% national capital)	
National capital (public capital + private capital)	605		100	
Public capital (net public wealth: difference between assets and debt held by government and other public agencies)	31		5	
	Assets 145%	Debt 114%	Assets 24%	Debt 19%
Private capital (net private wealth: difference between assets and debt held by private individuals [households])	574		95	
	Assets 646%	Debt 72%	Assets 107%	Debt 12%

The aforementioned definition has almost always been true when looking at the development of the public-private partition of national capital and the history of public wealth in Britain and France from the seventeenth century. In comparison to the vast quantity of private wealth, governmental assets and liabilities, and more often the disparity between the two, have often represented extremely little quantities to begin with. Over the last three centuries, net public wealth has fluctuated between positive and negative values in both nations. However, in comparison to the high levels of private wealth, the oscillations, which have generally ranged between +100 and −100 percent of national income, have all been modest in magnitude. Stated differently, the history of the relationship between private capital and national revenue has dominated the history of the ratio of national capital to national income in France and Britain from the eighteenth century, as previously explained. The essential truth in this case is, of course, well known: France and Britain have always been private property-based nations, never dabbling in Soviet-style communism, in which the state controls the majority of capital. Therefore, it is not unexpected that private wealth has consistently outpaced public wealth. On the other hand, no nation has ever accumulated enough public debt to significantly change the amount of private wealth.

It is in our best interests to extend the analysis with this fundamental reality in mind. Public policy did have a significant influence on the creation of private wealth at various moments and in diverse directions, even if it never reached to extremes in either nation. In Britain throughout the eighteenth and nineteenth centuries, the government sometimes accumulated significant public debts in an attempt to promote individual wealth. During the Ancien Régime and the Belle Époque, the French government followed suit. On other occasions, however, the state made an effort to lessen the amount of personal wealth. Following World War II, France eliminated its public debts and established a sizable public sector; Britain did the same, but to a smaller degree. At today, both nations are carrying significant public debts.

Great Britain

The Strengthening of Private Capital and Public Debt I start with the British situation. Twice, at the close of the Napoleonic Wars and again during World War II, did Britain's national debt reach very high proportions, perhaps 200 percent of GDP or somewhat more. Britain has never defaulted on its debt, despite the fact that no nation has maintained debt levels as high as it's for a longer length of time. It may take a very long time to pay off such a massive public debt if a nation does not fail in some manner, whether directly by simply repudiating its obligation or indirectly via significant inflation. In fact, the latter reality clearly illustrates the former.

Britain's state debt throughout the 19th century is a text-case in this regard. To go a little farther back in time, both France and Britain had racked up significant national debts in the eighteenth century prior to the American Revolution. Due to their frequent wars, both monarchies were unable to raise enough money through taxes to cover their expenses, which resulted in a sharp increase in the nation's debt. Thus, over the years 1700–1720, both nations were able to accumulate debt equal to around 50% of their national revenue, and during the years 1760–1770, 100% of their national income. It is commonly known that the French monarchy was unable to modernize its tax system and eliminate the financial privileges of the nobility. Additionally, the Estates General's 1789 convocation served as the catalyst for the final revolutionary resolution, which resulted in the adoption of a new tax system in 1790–1791. Every landowner was subject to a land tax, and everyone who inherited riches was subject to an inheritance tax. The "banqueroute des deux tiers," or "two-thirds bankruptcy," that occurred in 1797 was really a large default on two-thirds of the total amount of outstanding state debt, made worse by rising inflation brought on by the issue of assignats. In the end, this was how the Ancien Régime's obligations were paid. This led to a rapid reduction of the French state debt to an extremely low level in the early nineteenth century. Britain followed a radically different track. The British crown decided to borrow unrestrictedly in order to fund its several battles with France throughout the revolutionary and Napoleonic periods, as well as its conflict with the American revolutionaries. As a result, the public debt increased to equal the debt of France in the same era, reaching 100% of national revenue in the early 1770s and about 200% in the 1810s. In order to progressively lower Britain's debt to less than thirty percent of national revenue in the 1910s, a century of budget surpluses would be required.

What can we learn from this historical event? First, it is undeniable that private wealth had a greater effect on British society as a result of the country's high level of public debt. The substantial increase in public debt between 1770 and 1810 was financed, in large part, by an increase in private saving, meaning that total national capital remained roughly seven times that of national income throughout. In contrast, private wealth increased to more than eight times national income in the 1810s as net public capital began to decline. This indicates that Britons with the means to do so lent what the state demanded without significantly reducing private investment.

Therefore, it should come as no surprise that wealth is prevalent in Jane Austen's books: a record number of government bonds joined the ranks of traditional landowners. A very high level of total private wealth was the outcome. Land rentals were augmented by interest on British government bonds as private capital expanded to previously unheard-of levels.

Second, it's also abundantly evident that, all things considered, this very high level of public debt suited the interests of the lenders and their progeny quite well—at least in contrast to what would have occurred in the event that the British monarchy had forced them to pay

taxes in order to support its expenses. It is obviously considerably more profitable to lend money to the state and earn interest on the loan for decades than it is to pay taxes without receiving any recompense, at least for those who have the resources to do so. Moreover, the government's deficits served the interests of individuals whose prosperity relied on the return on their investment in government bonds by raising the general demand for private wealth and, therefore, the return on that wealth.

CONCLUSION

Examining the historical trajectory through the prism of public wealth exposes a complex web of governance frameworks, social advancement, and community resource management. This abstract has examined how public wealth has changed throughout time in a variety of historical circumstances and how it affects social cohesiveness, political stability, and economic development. The administration of public wealth has played a crucial role in the rise and fall of civilizations, from prehistoric agricultural communities to the intricate structures of contemporary nation-states. Public wealth, which includes land, natural resources, infrastructure, and cultural legacy, has been crucial in determining governance patterns, forming power structures, and supplying public goods. The abstract has examined how public wealth distribution and usage have changed in response to shifting socio-economic paradigms as civilizations move through historical epochs. Globalization, technological breakthroughs, and evolving ideas of governance provide both possibilities and difficulties that highlight the continued need of comprehending and managing public wealth in the modern world.

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CHAPTER 8

FRANCE: A CAPITALISM WITHOUT CAPITALISTS IN THE POSTWAR PERIOD

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ABSTRACT:

The unique trajectory of France in the postwar period, challenging traditional narratives of capitalism by examining the emergence of a distinctive economic model characterized as "capitalism without capitalists." The analysis delves into the historical, political, and economic factors that contributed to this phenomenon, shedding light on how France diverged from conventional capitalist structures during the mid-20th century. In the aftermath of World War II, France witnessed a transformative reconstruction and economic revitalization. However, rather than following the patterns of Anglo-American capitalism, France's postwar landscape evolved into a hybrid model that incorporated elements of both state intervention and private enterprise. This abstract investigates the role of political decisions, institutional frameworks, and cultural factors in shaping this unique capitalist paradigm. The concept of "capitalism without capitalists" implies a departure from the shareholder-centric capitalism prevalent in other Western economies. Instead, the French model emphasized collaboration between the state and industrial elites, with a focus on strategic planning, nationalization of key industries, and the pursuit of dirigisme – a form of indicative planning. The abstract analyzes how these policies aimed to balance economic growth, social stability, and national interest.

KEYWORDS:

Capitalism, Capitalists, Dirigisme, Economic Development, Industrial Elites.

INTRODUCTION

The main point is that the nineteenth century saw relatively high compensation for people who lent money to the government; from 1815 to 1914, inflation was almost nonexistent, and the interest rate on government bonds was typically between 4-5 percent; in particular, it was much higher than the growth rate. This is the main distinction between the nineteenth and twentieth centuries. Wealthy individuals and their heirs may find investment in public debt to be very profitable under such circumstances. In practical terms, consider a government that can run deficits of around 5% of GDP year for twenty years without needing to raise taxes by the same amount. Twenty years from now, 100 percent of GDP in extra public debt will have accrued.

Assume that the government just pays the debt's yearly interest rather than attempting to recoup the principle. If the interest rate is five percent, it will have to pay the owners of this new public debt five percent of GDP year and forever more. This is a general summary of what Britain accomplished in the 1800s. The British budget was consistently in substantial primary surplus from 1815 to 1914, a period of one hundred years, meaning that tax collections consistently outpaced expenditures by a few percentage points of GDP. This sum

was, for example, higher than the whole amount spent on education during this time. After a century of penance, the British were finally able to considerably decrease their public debt as a proportion of national revenue thanks primarily to the rise of their domestic output and national income[1], [2].

Gains from Public Debt

There are many reasons why this historical record is essential. First, it helps us to understand why socialists of the nineteenth century, starting with Marx, were so suspicious of public debt, which they saw as a weapon of private capital, although with some discernment. This was especially concerning since, at the time, investors in public debt received large payouts from both Britain and several other countries, including France. The revolutionary bankruptcy of 1797 did not occur again, and the rentiers in Balzac's books do not seem to have been more concerned about their government bonds than those in Jane Austen's writings. Indeed, throughout the 1815–1814 era, inflation in France was as low as in Britain, and interest on government bonds was consistently paid on schedule. Throughout the nineteenth century, French sovereign debt proved to be a profitable investment, with private investors enjoying similar prosperity to that of Britain. Even while France's total outstanding public debt was relatively small in 1815, it increased during the next decades, especially under the Restoration and July Monarchies, when voting rights were contingent on owning property[3], [4].

The French government accumulated significant debts in 1815–1816 to pay for an indemnity to the occupying armies and then again in 1825 to fund the legendary "émigrés' billion," an amount given to aristocrats who left France after the Revolution. The financial interests of the Empire were adequately catered to. Marx took offense at Louis Napoleon Bonaparte's new minister of finance, AchilleFould, who represented bankers and financiers, peremptorily decided to increase the tax on drinks in order to pay rentiers their due in the ferocious articles he wrote in 1849–1850 and published in The Class Struggle in France. Subsequently, the French government was forced to borrow from the people once again to finance a transfer of monies to Germany that amounted to about thirty percent of the country's revenue following the Franco-Prussian War of 1870–1871.Thirteen Ultimately, between 1880 and 1914, the French public debt exceeded that of the British, accounting for 70–80% of national revenue as opposed to less than 50% in the former case. Belle Époque French literature showed a marked interest in government bonds. A sizeable portion of the population subsisted on the interest that the government paid annually, which was between two and three percent of the country's income. A completely new perspective on public debt evolved in the 20th century, driven by the belief that debt could be used as a tool for policy to increase public expenditure and redistribute income to the poorest segments of society. The distinction between these two points of view is really straightforward: in the nineteenth century, lenders were well rewarded, which increased individual wealth; in the twentieth century, inflation swamped debt and repayments were made with depreciating currency. In actuality, this meant that those who had loaned money to the state could fund deficits without having to increase taxes by the same amount. Even if the distributional impacts of public debt are largely hidden and inflation has long ago decreased to a pace just above that of the eighteenth century, the "progressive" perspective of the debt still holds sway over many people[5], [6].

It's worth remembering that inflation had a much larger role in redistribution in France than it did in Britain. French inflation, which multiplied prices by a ratio of 100, averaged more than 13 percent year between 1913 and 1950. When Proust penned Swann's Way in 1913, government bonds looked as immovable as the Grand Hotel in Cabourg, where the author spent his summers. The rentiers of 1913 and their descendants had almost nothing left when

the bonds' purchase power dropped to a tenth of what it had previously been in 1950. Even with a substantial starting public debt and very significant deficits between 1913 and 1950, particularly during the war years, the French public debt was again comparatively modest by 1950, as it had been in 1815. Specifically, in the highly heated political environment of 1945–1948, inflation exceeding 50 percent annually almost instantly offset the massive deficits of the Liberation. This was the equivalent, in a sense, of the “two-thirds bankruptcy” of 1797: previous debts were forgiven in order to reconstruct the nation with little public debt.

Things were done differently in Britain, slower and with less fervor. Even while prices rose by a factor for British rentiers between 1913 and 1950—the average annual rate of inflation was little over 3 percent—this was nevertheless a spoliation of a kind that was unthinkable in the nineteenth century, if not before to World War I. However, it was hardly enough to avert a massive build-up of public debt during two world wars: Britain was fully mobilized to finance the war effort without undue reliance on the printing press, which led to the country's massive debt by 1950, which was even higher than in 1815 at more than 200 percent of GDP. The only reason Britain's debt dropped to around 50% of GDP was the inflation of the 1950s and early 1970s. Inflation is a very potent redistribution mechanism that was important historically in both Britain and France throughout the 20th century. Nevertheless, it brings up two important issues. First off, its target selection is somewhat naive: among those possessing a certain amount of wealth, government bond holders are not always the wealthiest—far from it. Secondly, the inflation mechanism is not a perpetual process. Lenders will demand a higher nominal interest rate if inflation becomes permanent, and the greater cost won't have the intended results. Moreover, high inflation has a tendency to pick up speed quickly, and once it starts, its effects may be hard to control: certain socioeconomic groups saw a significant increase in wealth, while others did not. A new consensus about low inflation emerged in the late 1970s, a decade characterized by growing unemployment, inflation, and relative economic stagnation. I'll come back to this later.

Variations in Ricardian Equivalency

From the peaceful rentiers of the eighteenth and nineteenth centuries to the expropriation by inflation of the twentieth century, this lengthy and turbulent history of public debt has permanently impacted communal memories and representations. Economists have been influenced by the same historical events. For instance, David Ricardo was obviously much inspired by what he saw around him when he developed in 1817 the theory now known as "Ricardian equivalency," which holds that, under certain circumstances, public debt has no impact on the building of national capital. Even though the British governmental debt was about 200 percent of GDP at the time he wrote, capital accumulation and private investment did not seem to have been affected. The much-feared "crowding out" phenomena did not materialize, and it seemed that rising private savings were used to pay the rise in state debt. To be clear, this does not imply that Ricardian equivalency is a universal norm that applies everywhere and at all times. Naturally, everything hinged on the level of affluence within the social group in question, the interest rate that was given, and, of course, public trust in the government. However, it is important to remember that Ricardo, who was well-versed in the British capitalism of the era and lacked access to time series or measurements of the kind mentioned, was able to discern that Britain's enormous public debt was merely a claim made by one segment of the population on another and had no discernible bearing on the country's overall wealth.

Similarly, John Maynard Keynes was profoundly impacted by what he saw around him when he wrote in 1936 about "the euthanasia of the rentier": the rentier world of pre-World War I was collapsing, and there really was no other politically acceptable way out of the current

economic and budgetary crisis. Specifically, Keynes felt that the easiest, though perhaps not the most equitable, way to lessen the weight of public debt and the influence of accumulated wealth would be through inflation—a policy that the British were still hesitant to embrace due to their strong conservative attachment to the gold standard that existed prior to 1914.

Since the 1970s, studies of the public debt have likely been hindered by the over-reliance of economists on models known as "representative agent models," which presume that every agent has the same amount of wealth and income. Sometimes it is helpful to simplify reality in this way in order to identify logical relationships that are difficult to analyze in more intricate models. However, these models frequently result in extreme and unrealistic conclusions and are therefore a source of confusion rather than clarity because they completely ignore the issue of inequality in the distribution of wealth and income. Representative agent models in the public debt domain can lead to the conclusion that public debt is totally neutral with respect to both the total amount of national capital and the distribution of the fiscal burden. The American economist Robert Barro first proposed this radical reinterpretation of Ricardian equivalency, but it ignores the reality that the majority of the public debt is actually owned by a small portion of the population, meaning that the debt is a major driver of internal redistributions both when it is repaid and when it is not. In light of the high degree of concentration that has always been typical of the wealth distribution, to investigate these topics without inquiring about inequities across social groups is in reality to say nothing about major elements of the subject and what is actually at stake.

DISCUSSION

I now shift again to the topic of government assets and the history of public wealth. The history of public assets seems to be less turbulent than that of public debt. Simplifying, we might state that the entire value of public assets grew over time in both France and Britain, reaching almost 100% by the end of the twentieth century, from less than 50% of national revenue in the eighteenth and nineteenth centuries. To a first approximation, this increase is a reflection of the state's consistent historical growth in economic role, particularly the creation of ever-more-extensive public services in the fields of health and education, along with public or semipublic infrastructure investments in communication and transportation. In comparison to Britain, France has more extensive public services and infrastructure; in 2010, the value of all public assets was around 150 percent of national revenue, while it was only about 100 percent across the Channel. However, this calm, oversimplified picture of the long-term accumulation of public assets leaves out a crucial part of the last century's history: the substantial public asset accumulation in the financial and industrial sectors between 1950 and 1980, followed by large waves of privatization of those same assets after 1980. In many developing economies as well as in the majority of industrialized nations, particularly in Europe, both trends may be seen to varying degrees[7], [8].

France is a prime example of this. We can go back in time and comprehend it. The 1930s economic crisis and the subsequent catastrophes severely damaged confidence in private capitalism, not just in France but in many other nations as well. With a fury that has never been replicated, the Wall Street collapse of October 1929 set off the Great Depression, which left a quarter of the working population unemployed in the United States, Germany, Britain, and France. All nations adhered to the traditional theory of "laissez faire," or nonintervention by the state in the economy, throughout the nineteenth century and up until the early 1930s, when it was largely discredited. Numerous nations choose to become more interventionist. Governments and the people, understandably enough, questioned the rationality of the banking and economic elites who had amassed wealth at the expense of plunging the globe into catastrophic events. People started to consider various forms of “mixed” economies,

which included traditional forms of private property along with varying degrees of public ownership of businesses. Or, at the very least, a significant amount of public supervision and regulation of the financial system and of private capitalism in general. Moreover, the Soviet Union's entry into the winning Allies of World War II raised the stature of the Bolshevik-instituted statist economic system. Had that system not enabled the Soviets to forcefully march a famously backward nation—which had only just escaped from serfdom in 1917—into industrialization? Joseph Schumpeter predicted in 1942 that socialism will ultimately defeat capitalism. When Paul Samuelson released the eighth edition of his well-known book in 1970, he was still projecting that the Soviet Union's GDP would surpass that of the US somewhere between 1990 and 2000.

This overall mistrust of private capitalism in France was reinforced after 1945 by the widespread suspicion that a large number of the country's elite had assisted the German invaders and had improperly benefited from the war. Large portions of the economy, notably the banking, coal, and car industries, were nationalized during this contentious post-liberation period. After Louis Renault, the company's owner, was detained in September 1944 on suspicion of being a collaborator, the Renault plants were forcibly taken. In January 1945, the company was seized by the interim government. Estimates that are now available indicate that the overall value of French public assets in 1950 was more than the country's annual revenue. At a period when total private wealth was only worth around two years of national revenue, net public wealth was almost equal to one year's national income due to the dramatic decline in the value of the public debt caused by inflation. As is customary, one should not be duped by the seeming accuracy of these estimates: it is difficult to assess capital value at a time when asset prices have reached all-time lows, and it is plausible that public assets are marginally undervalued in relation to private assets. However, the magnitudes might be seen as important: in 1950, the French government held 25–30%, and perhaps even somewhat more, of the country's wealth[9], [10].

This is a noteworthy percentage, particularly considering that small and medium-sized businesses and agriculture were not affected by public ownership, which also never claimed more than a minority stake in residential real estate. The state's share in the national wealth surpassed fifty percent in the industrial and financial sectors most immediately impacted by the postwar nationalizations between 1950 and 1980. Despite being a short historical occurrence, it is crucial to comprehend the French people's nuanced views on private capitalism, especially in the present day. France had a mixed economy during the TrenteGlorieuses, a period of rapid economic expansion and country reconstruction. It was essentially a kind of state capitalism, with private owners no longer holding the majority of the country's businesses.

Indeed, waves of nationalization also took place in many other nations at this time, such as Britain, where in 1950 the value of public assets surpassed the annual national income—a level that was comparable to that of France. The distinction is that, in the 1950s, net public wealth was notably negative and private wealth was much bigger due to the fact that British public debt at the time surpassed two years of national revenue. In Britain, net public wealth did not start to increase until the 1960s and 1970s, and even then it was still less than 20 percent of GDP. The French trajectory is unique in that, while private wealth—both financial and real estate—rose to levels even higher than those of Britain, including nearly six years' worth of national income in 2010, or 20 times the value of public wealth, public ownership, which had flourished from 1950 to 1980, fell to extremely low levels after 1980. Following 1950, France was the promised land of the new private-ownership capitalism of the twenty-first century, following a period of state capitalism.

The fact that the alteration was never explicitly recognized for what it was makes it all the more noticeable. The deregulation of financial markets and capital flows, together with the liberalization of the market for goods and services, contributed to the global privatization of the economy in the 1980s. This process had many intricate beginnings. The Great Depression and its aftereffects were no longer fresh in people's minds. The boundaries of the postwar Keynesian consensus were shown by the "stagflation" of the 1970s. It was only reasonable to wonder whether it was wise to keep expanding the state's role and putting more and more demands on national productivity, especially with the conclusion of postwar rebuilding and the high growth rates of the TrenteGlorieuses. The "conservative revolutions" of 1979–1980 in the US and UK marked the beginning of the deregulation movement as these nations became more and more resentful of outside influence. In the meanwhile, both communist superpowers started a progressive liberalization of their economic systems in the 1980s by allowing new types of private property in businesses, as a result of the increasingly apparent failure of the statist Soviet and Chinese models in the 1970s.

In 1981, French voters demonstrated a considerable disinclination to go against the grain notwithstanding these global currents that were convergent. Naturally, each nation has its unique history and political era. A combination of Socialists and Communists gained power in France on a platform of extending the 1945-started nationalization of the banking and industrial sectors. This turned out to be a temporary stopgap, however, since a liberal majority started a significant privatization wave that affected every industry in 1986. A new socialist majority then carried out and intensified this project between 1988 and 1993. Both the Renault Company and the Public Telecommunications Administration became joint-stock companies in 1990. The former was reorganized as France Telecom and welcomed private involvement in 1997–1998. Although it did not stop a continuous rise in the public debt, the gradual selling of publicly owned shares after 1990 added additional revenue to public coffers in an environment of slowing growth, rising unemployment, and significant government deficits. Public net worth plummeted to very low levels. As this was going on, prime wealth gradually increased to heights not seen before the 20th century's shocks. Thus, without truly knowing why, France completely changed its national capital structure at two distinct periods in history[11], [12].

From the Old World to the New Europe

The changes in capital that have occurred in Britain and France since the 18th century. Each nation's teachings were found to be consistent and complimentary. Although capital's character was ultimately altered, its overall quantity in relation to income hardly changed at all. The investigation must now be expanded to include additional countries in order to have a deeper grasp of the many historical processes and mechanisms involved. To complete the picture of Europe, I shall start by discussing Germany. After that, I'll focus on North American capital. The New World saw the emergence of capital in a few very unusual and distinct ways: first, due to the abundance of land that made it inexpensive; second, due to the practice of slavery; and third, because this area of unending population expansion tended to accumulate structurally smaller amounts of capital than did Europe. This raises the issue of what factors ultimately determine the capital/income ratio, which will be the focus of discussion. Insofar as the sources permit, I shall address that issue by expanding the study to include all affluent nations before moving on to the whole world.

Capital Shocks of the Twentieth Century

After providing an overview of the capital/income ratio's overall development and the public-private divide's long-term history, I must return to the chronology issue and make a special

effort to comprehend the reasons behind the ratio's dramatic decline during the twentieth century and subsequent rise. First of all, take note of the fact that all of Europe was impacted by this occurrence. According to every source that is now accessible, the changes that have been seen in Britain, France, and Germany are indicative of the whole continent; although there are some intriguing differences throughout the nations, the general trend is the same. Specifically, the capital to income ratio has increased dramatically in Spain and Italy since 1970—even more dramatically than in Britain and France—and the historical data that is now available indicates that it was about equivalent to six or seven years' worth of national revenue at the start of the 20th century. Estimates that are currently available for Austria, the Netherlands, and Belgium show a similar trend.

Next, we have to be adamant that the physical destruction of capital brought about by the two world wars accounts for a very small portion of the decline in the capital/income ratio between 1914 and 1945. The value of national capital in Britain, France, and Germany dropped dramatically to less than two and a half years of national revenue in 1950 from between six and a half and seven years in 1913. This represents a reduction of more than four years of national income. Undoubtedly, significant physical devastation of capital occurred, particularly in France during World War I and in Germany and France during World War II as a result of intense bombing in 1944 and 1945. In all, France lost over a year's worth of capital, while Germany lost almost a year and a half's worth. Even in the two nations where the hostilities have had the most immediate impact, these losses, although very important, evidently only account for a small portion of the overall decline. Compared to France and Germany, Britain saw less severe physical damage during World War I and less than 10% of national revenue due to German bombing during World War II. However, the country's national capital plummeted by four times the amount of national income.

Contrary to popular belief, the financial and political toll that two wars had on capital outweighed the actual cost of fighting. In addition to physical devastation, the collapse of foreign portfolios and the extremely low savings rate that characterized the period, on the one hand, and the low asset prices that resulted in the new postwar political context of mixed ownership and regulation, on the other, were the primary causes of the startling decline in the capital/income ratio between 1913 and 1950. Losses on foreign assets are significant, particularly in Britain, where net foreign capital fell from two years' worth of national income on the eve of World War I to a slightly negative level in the 1950s. I have previously discussed this. Britain’s losses on its overseas portfolio were therefore substantially bigger than French or German losses from physical destruction of domestic capi- tal, and they more than made up for the comparatively modest degree of physical de- struction on British territory. Expropriations brought about by revolution and the decolonization process contributed to the decline of foreign capital, but the very low savings rates seen in many European nations between 1914 and 1945 played a much larger role. As a result, British and French savers sold off their foreign assets piecemeal. The years 1914–1945 were a terrible time for all Europeans, but notably for the affluent, whose income drastically decreased in contrast to the Belle Époque due to sluggish growth and many recessions. Because private savings rates were low, some individuals decided to gradually sell up a portion of their money in order to preserve their quality of life. Furthermore, when company after company filed for bankruptcy during the 1930s Great Depression, many owners of stocks and bonds were left in financial disaster.

From the Old World to the New Europe

Additionally, huge governmental deficits—especially during the wars—absorbed much of the little private savings, with national saving—the total of private and public saving—being

very low in Britain, France, and Germany between 1914 and 1945. The illusion that private wealth in Britain was doing better in 1950 than private wealth on the continent was created by savers lending large sums of money to their governments and, in some cases, selling their foreign assets, only to have their wealth eventually expropriated by inflation, very quickly in France and Germany and more slowly in Britain. Actually, the impact on the country's wealth was the same in both locations. Governments occasionally took out direct loans from overseas; this is how the US went from having a negative position just before World War I to having a positive position in the 1950s. However, the impact on Britain's or France's national wealth was same. In the end, the history of Europe's suicide—and specifically, the euthanasia of European capitalists—lies in the fall in the capital/income ratio between 1913 and 1950.

Yet without insisting that the low level of the capital-to-income ratio following World War II was, in some ways, a good thing, as it reflected in part a purposeful policy choice aimed at reducing—more or less consciously and more or less efficaciously—the market value of assets and the economic power of their owners, this political, military, and budgetary history would be dreadfully incomplete. In specific terms, the low capital/income ratio may be partially explained by the fact that stocks and real estate prices declined to historically low levels in the 1950s and 1960s in relation to the cost of goods and services. Recall that the market values at any given moment are used to assess all types of wealth. There is a certain amount of arbitrariness involved, but this is the only way we know of to determine the national capital stock since there is no other way to add together blast furnaces, square meters of real estate, and hectares of farmland.

During the postwar era, rent control measures were widely implemented during times of significant inflation, particularly in the early 1920s and the 1940s, which led to record low housing costs. Compared to other prices, rents increased more slowly. Tenant housing costs decreased, and real estate values dropped as landlords made less money from their holdings. Similar to this, throughout the 1950s and 1960s, the value of firms—that is, the worth of shares of partnerships and the stock of listed companies—fell to comparatively low levels. In addition to the Depression and the postwar nationalizations that severely damaged investor confidence in the stock markets, new financial regulation and profit-and dividend-taxation policies had also been instituted, which served to diminish the influence of investors and the value of their shares.

CONCLUSION

A notable divergence from traditional accounts of capitalism growth is the postwar era. The development of France's economic model has been outlined in this abstract, with particular attention paid to the complex interactions between political, economic, and historical elements that resulted in a distinctive blend of public and private sector involvement. Deliberately focusing on cooperation between the state and industry elites, France chose to depart from the Anglo-American capitalism model in the wake of World War II. Indicative planning, nationalization of important sectors, and the notion of dirigisme demonstrated a determination to strike a balance between social stability, economic development, and national interest, opposing the dominant shareholder-centric capitalism seen in other Western countries. This approach has significant effects on France's social structures, economic performance, and competitiveness abroad. Although the collaborative method promoted a feeling of economic solidarity, it also presented difficulties, such as issues with income distribution, labor relations, and innovation. France's distinct postwar economic trajectory challenges the conventional capitalist paradigm and invites contemplation on the flexibility and variety inherent in economic systems.

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CHAPTER 9

SLAVE CAPITAL AND HUMAN CAPITAL: A HISTORICAL AND CONCEPTUAL EXPLORATION

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ABSTRACT:

The juxtaposition of two distinct forms of capital—slave capital and human capital—examining their historical antecedents, societal implications, and contemporary resonance. The analysis navigates the trajectories of these capital forms, recognizing the profound impact they have had on the economic, social, and ethical dimensions of societies across different historical epochs. The concept of slave capital harks back to the dark chapters of human history when individuals were treated as property, serving as a form of economic capital within systems of slavery. This abstract traces the historical roots of slave capital, exploring its prevalence in various civilizations and its enduring legacy on modern perceptions of human rights, racial justice, and reparative justice. In contrast, human capital represents an evolution in economic thought, acknowledging the intrinsic value of individuals as contributors to economic productivity and societal development. The abstract investigates the conceptual shift from viewing individuals as mere labor inputs to recognizing the importance of education, skills, and well-being in enhancing human capital. It explores the implications of this shift on labor markets, education systems, and the overall prosperity of nations.

KEYWORDS:

Capitalism, Historical Injustices, Human Capital, Human Rights, Racial Justice, Reparative Justice.

INTRODUCTION

I want to go beyond the European context to look at the historical forms and amounts of capital in America before going into more depth about the capital/income ratio's recovery in the second half of the 20th century and assessing the possibilities for the 21st. Several facts stand out plainly. Initially, America was the New World, a place where wealth was not as important as it was in the Old World, which was old Europe. More specifically, the value of the nation's capital stock during the years 1770–1810, when the United States gained its independence, was barely greater than three years' worth of national income, according to a number of contemporary estimates I have gathered and compared with figures for other nations. Between one and one and a half years' worth of the country's revenue was the value of farmland. Despite these uncertainties, it is undeniable that the New World colonies had a far lower capital to income ratio than either Britain or France, where national capital was about equivalent to seven years' worth of national revenue, of which farmland accounted for almost four[1], [2].

Foreign Capital and the New World

The fact that foreign money has never held more than a very minor role in American history is another significant distinction between the histories of capital in America and Europe. This

is due to the fact that the United States, the first colonized territory to gain freedom, was never able to establish itself as a colonial power.

The United States' net foreign capital position was somewhat negative throughout the nineteenth century because foreignersprimarily British—owned more in the United States than what US people held abroad. Nonetheless, the difference was negligiblebetween 1770 and 1920, it was often less than 10 percent, and at most 10–20 percent of the US national GDP. For instance, US domestic capital (farmland, houses, and other domestic capital) reached at 500 percent of national revenue on the eve of World War I. Ten percent of the country's revenue was represented by the assets held by foreign investors out of this total. Thus, the United States' net national wealth, or national capital, was equal to around 490 percent of its national revenue. Put another way, 2 percent of the US was held by foreigners while 98% of the US was owned by Americans. Particularly in light of the massive foreign assets owned by Europeans—between one- and two-years' worth of national revenue in France and Britain and half a year in Germanythe net foreign asset position was almost balanced. The fact that the US GDP in 1913 was little more than half that of Western Europe also implies that the Europeans of that year owned very little of their foreign asset portfolios in the US. In summary, the United States owned itself in the globe of 1913, while Europe held a sizable portion of Africa, Asia, and Latin America. The United States' net foreign asset position flipped over the two world wars; it was negative in 1913, marginally positive in the 1920s, and stayed that way until the 1970s and 1980s. The United States became a creditor of Europe after funding the belligerents and stopping to be a debtor. Nonetheless, it is important to note that the US's net foreign asset holdings remained very low, at about 10% of GDP[3], [4].

The United States' net foreign capital holdings remained very small, especially in the 1950s and 1960s. At the time, especially to Europeans accustomed to owning the world and resentful of having to partially credit Uncle Sam and the Marshall Plan for their reconstruction, the US multinational corporations' investments in Europe and the rest of the world had reached levels that seemed significant. In actuality, US investments in Europe would always be very small in comparison to the global holdings the former colonial powers had a few decades before, even in spite of these national tragedies. Moreover, sustained high foreign investment in the US, especially from Britain, offset US investments abroad and in Europe. It is never easy to be controlled by foreigners, as the New York advertising business Sterling Cooper is taken out by eminent British shareholders in the early 1960s Mad Men series. This event undoubtedly causes a culture shock in the narrow world of Madison Avenue advertising.

As a consequence of growing trade deficits, the United States' net foreign capital position became somewhat negative in the 1980s and progressively negative in the 1990s and 2000s. However, because of the country's sustained faith in the dollar, US investments overseas have continued to generate significantly higher returns than the country has had to pay on its foreign debt. Due to this, the US's negative position—which was around 10% of national revenue in the 1990s and slightly more than 20% in the early 2010s—could be contained. Thus, overall, the state of affairs now is comparable to what it was just before the start of World War I. The domestic capital of the United States is worth around 450 percent of national revenue. Twenty percent of the country's revenue is represented by the assets owned by foreign investors out of this total. Therefore, the United States' net national wealth equals around 43% of its national revenue. Stated differently, the United States is held by more than 95% Americans and fewer than 5% by foreigners. It's noteworthy to note that in Canada, where foreign investors, mostly British, held a large portion of local capital—up to a quarter

in the late 19th and early 20th centuries—especially in the natural resources industry. Things there seem to have gone quite differently. Canada's internal capital was worth 530 percent of its GDP in 1910. Between one-fifth and one-quarter of the total, or 120 percent of the national revenue, was represented by assets held by foreign investors. Thus, net national wealth in Canada was equivalent to almost 409 percent of national revenue. Europeans were obliged to sell numerous foreign assets during the two world wars, which significantly altered the situation. This took time, however: from 1950 to 1990, Canada's net foreign debt constituted around 10 percent of its domestic capi- tal. Before it was consolidated in 1990, the public debt increased at the conclusion of the era. Canada's current state of affairs is comparable to that of the US. Its national income is around 410 percent represented by its domestic capital. Foreign investors' assets make up less than 10% of the overall assets, which makes up the national revenue. Thus, less than 2% of Canada is held by foreigners and more than 98% is owned by Canadians[5], [6].

It is intriguing to compare the US and Canada since it is hard to identify only economic factors that would explain the significant differences between these two North American paths. Political considerations undoubtedly had a major influence. Even while foreign investment has always been welcomed in the US, it is hard to conceive that residents of the US in the nineteenth century would have accepted a scenario where the former colonizer held 25% of the nation. This was less problematic in Canada, which remained a British colony; after all, the fact that Britain owned a sizable portion of the nation was no more unusual than the fact that Londoners controlled a sizable portion of the land and several industries in Scotland or Sussex. Similarly, the absence of any violent political upheaval and, consequently, the lack of expropriations of the kind that, in other parts of the world, typically accompanied access to independence, particularly with regard to natural resources, are linked to Canada's net foreign assets remaining negative for such a long time. I cannot wrap off my analysis of the transformations of capital in Europe and the US without also looking at the subject of slavery and its role in US history.

Thomas Jefferson's holdings extended beyond his property. In addition, he had over six hundred slaves, the most of which he inherited from his father and father-in-law. His political stance on the issue of slavery was consistently very ambiguous. His ideal republic, in which small proprietors would have equal rights, would not include people of color, whose forced labor was vital to the development of his own Virginia's economy. Despite this, he signed a statute prohibiting the entry of additional slaves into the US after 1808, having been elected president of the United States in 1801 by the votes of the southern states. The number of slaves increased sharply in spite of this, rising from about 400,000 in the 1770s to 1 million in the 1800 census. Between 1800 and the 1860 census, which tallied almost 4 million slaves, the number more than quadrupled once again; in other words, and the number of slaves had grown tenfold in less than a century. When the Civil War started in 1861, the slave economy was expanding quickly, which ultimately resulted in the abolition of slavery in 1865.

About one million out of the five million people living in the United States in 1800 were slaves, making up approximately 20 percent of the country's total population. The percentage rose to 40% in the South, where almost all slaves were kept: out of 2.5 million people, 1.5 million were white and 1 million were slaves. Slavery was not owned by every white person, and only a very small percentage of them had as many as Thomas Jefferson had. Slavery-based wealth was among the most concentrated of all. Due to the North and West's explosive population increase, the share of slaves in the US population as a whole had decreased to around 15% by 1860. However, the percentage stayed at 40% in the South, where there were 4 million slaves and 6 million white people out of a total population of 10 million.

A plethora of historical materials are available to us for researching the cost of slaves in the United States from 1770 to 1865. These include the data on slave market transactions gathered mostly by Robert Fogel, the tax and census information used by Raymond Goldsmith, and the probate records compiled by Alice Hanson Jones. I put up the estimations by comparing these several sources, which are quite similar with one other. What is discovered is that, in the late eighteenth and early nineteenth centuries, the overall market worth of slaves accounted for approximately a year and a half of the US national revenue, which is comparable to the entire value of farmland. The entire wealth of the United States has been largely constant from the colonial period to the present, at around four and a half years of national revenue, if slaves are taken into account along with other components of wealth. This kind of slave valuation is clearly questionable in more ways than one; it is a reflection of a society in which some humans were seen more as property than as sentient beings with rights, including the right to possess property. However, it does enable us to gauge how valuable slave capital is to slave owners.

DISCUSSION

I have not attempted to calculate the worth of slave capital in other civilizations with slavery. Slavery was outlawed throughout the British Empire between 1833 and 1838. It was outlawed in the French Empire in two phases. A share of foreign cash was invested in plantations in the West Indies or slave states on Indian Ocean islands in both empires throughout the eighteenth and early nineteenth century. Slaves were among these plantations' assets; I haven't tried to figure out how much they were worth individually. A slave's share of total wealth was obviously smaller in these two countries at the beginning of the nineteenth century than it was in the United States, as total foreign assets did not exceed 10 percent of national income.16 On the other hand, in societies where slaves make up a significant portion of the population, the market value of slaves can easily reach very high levels, possibly even surpassing that of the United States in 1770–1810 and greater than the value of all other forms of wealth. Consider the extreme scenario when a small minority owns almost the whole population. For the sake of this discussion, let us assume that 60% of the nation's revenue comes from labor, 40% comes from capital gains, and the annual return on all non-human capital types is 5%. The first basic rule of capitalism is that the worth of a country's capital is equal to its revenue for eight years[7], [8].

The same law applies to slave capital in a society where slavery is practiced: if the yield of slaves amounts to 60% of national income and the annual return on all capital is 5%, then the market value of the entire stock of slaves equals twelve years of national income, or 0.5 times more than national nonhuman capital, because the yield of slaves is 0.5 times greater than that of nonhuman capital. Since the overall yearly flow of revenue and production is capitalized at a rate of five percent, adding the value of slaves to the capital gains gives us, naturally, twenty years' worth of national income. In the case of the United States between 1770 and 1810, the value of slave capital was approximately 1.5 years' worth of national income. This was due in part to the fact that slaves made up 20% of the population and that slave productivity was marginally higher than that of free labor. Additionally, the rate of return on slave capital was typically closer to 7 or 8 percent, or even higher, than it was to 5 percent, which resulted in a lower capitalization. In actuality, a slave's market price in antebellum America was usually equal to ten to twelve years' worth of earnings for a comparable free worker. Notably, however, the price of a slave varied greatly depending on various characteristics and the owner's evaluation; for example, the wealthy planter Quentin Tarantino portrays in Django Unchained is prepared to sell beautiful Broomhilda for only $700 but wants $12,000 for his best fighting slaves. In 1860, the average price of a male slave

of prime working age was approximately $2,000, whereas the average wage of a free farm laborer was on the order of $200.

In any event, it is evident that this kind of computation is only reasonable in a society based on slavery, where human capital is permanently and irreversibly traded. The authors of a recent series of World Bank studies on "the wealth of nations" are among the economists who choose to determine the overall worth of "human capital" by capitalizing the labor income flow based on an arbitrary yearly rate of return. These findings come to the startling conclusion that, in the magical world of the twenty-first century, human capital is the most valuable kind of capital. In actuality, this conclusion is very clear and would have been valid in the eighteenth century as well: if labor accounts for more than half of the national income and labor income is capitalized at a rate equal to or higher than that of capital income, then by definition, human capital is more valuable than all other types of capital. To arrive to this conclusion, neither surprise nor the use of a hypothetical capitalization are required. It only makes sense to assign a monetary value to the stock of human capital in civilizations where it is really feasible to possess other people completely—societies that seem to have ended abruptly[9], [10].

The Long-Term Capital/Income Ratio

In the last post, I looked at how capital has changed across Europe and North America since the seventeenth century. The nature of wealth underwent a complete transformation throughout time, with industrial and financial capital, as well as urban real estate, increasingly replacing capital in the form of agricultural land. The most striking fact, however, was undoubtedly that despite these changes, the ratio that gauges the overall significance of capital in the economy and society—the total value of the capital stock expressed in years of national income—appears to have remained relatively stable over an extended period of time. National capital now represents roughly five or six years of national income in Britain and France, the two nations for which we have the most complete historical data. This is only marginally less than the level of wealth seen in the eighteenth and nineteenth centuries and right up until the eve of World War I. Furthermore, considering the capital/income ratio's robust and consistent rise since the 1950s, it is reasonable to wonder whether this trend will hold in the next years and if, by the end of the twenty-first century, the ratio will return to previous levels or perhaps exceed them.

$\beta = s / g$ is the second fundamental law of capitalism.

Over an extended period, the capital/income ratio (β) may be directly and transparently linked to both the growth rate (g) and the savings rate (s) using the following formula:

$\beta = s / g$

For instance, $\beta = s / g = 600\%.2$ if $s = 12\%$ and $g = 2\%$.

Put another way, if a nation saves 12 percent of its annual gross domestic product and the nation's gross domestic product grows at a rate of 2 percent annually, the nation's capital to income ratio will eventually equal 600 percent, meaning that the nation will have saved enough money to cover six years' worth of national income.

This equation, which can be thought of as the second fundamental law of capitalism, captures a simple yet crucial idea: a nation that saves a lot of money and grows slowly will eventually build up a sizable stock of capital, which can have a big impact on the distribution of wealth and the social structure. Put another way, money that has accrued in the past will unavoidably come to have disproportionate relevance in a quasi-stagnant society. Thus, the return to a

slow-growth regime may account for the twenty-first century's fundamentally high capital/income ratio, which is comparable to levels seen in the eighteenth and nineteenth centuries. Thus, decreased growth, particularly demographic growth, is what driving capital's resurgence [11], [12].

The long-term capital to income ratio

The main idea is that, in the long term, little fluctuations in the pace of growth may have a significant impact on the capital/income ratio. For instance, with a savings rate of 12 percent, the long-term capital/income ratio $\beta = s/g$ will increase to eight years of national income if the rate of growth drops to 1.5 percent annually. In the event that the growth rate drops to 1%, $\beta = s/g$ will increase to twelve years, indicating that the society would need twice as much capital as it would have at a growth rate of 2%. On the one hand, this is excellent news since capital may be beneficial to all parties involved, given that it is properly structured. However, this also implies that, for a given wealth distribution, the owners of capital may have a greater proportion of the overall economic resources. Either way, there will be significant political, social, and economic ramifications to this shift. Conversely, if the growth rate hits three percent, then $\beta = s/g$ will only amount to four years' worth of national revenue. The long-run capital/income ratio will drop to 3 if the savings rate and the overall rate of return both marginally dip to s = 9 percent.

These effects are made more significant by the fact that the growth rate that figures in the law $\beta = s/g$ is the overall rate of growth of national income, which is the sum of the population growth rate and the per capita growth rate.3 In other words, for a savings rate of 10–12 percent and a growth rate of national income per capita of 1.5–2 percent a year, it follows immediately that a country with near-zero demographic growth and, therefore, a total growth rate close to 1.5–2 percent, like in Europe, can expect to accumulate a capital stock worth six to eight years of national income, whereas a country with demographic growth of one percent a year and, therefore, a total growth rate of 2.5–3 percent, like in the United States, will accumulate a capital stock worth six to eight years of national income. This process will be further strengthened if the later nation tends to save a bit less than the former, maybe due to a slower rate of population aging. Stated differently, nations exhibiting comparable rates of income per capita growth may yet have very differential capital/income ratios due to variations in their population growth rates.

We are able to provide a thorough explanation of the capital/income ratio's historical development thanks to this statute. Specifically, it allows us to explain why the capital/income ratio seems to be returning to extremely high levels again, after the shocks of 1914–1945 and the very fast development era of the second half of the twentieth century. It also helps us to comprehend why Europe tends to collect more capital than the US for structural reasons. However, I need to clarify a few conceptual and theoretical concerns before I can describe this occurrence.

An Extended Statute

Firstly, it is essential to clarify that the application of $\beta = s/g$, the second basic rule of capitalism, is contingent upon the satisfaction of a few key assumptions. First off, this is an asymptotic law, which means that it only holds true over an extended period of time. If a nation saves a certain percentage (s) of its income forever and its national income grows at a constant rate (g), then that nation's capital to income ratio will eventually approach and stabilize at $\beta = s/g$. But this won't happen overnight: a nation won't be able to reach a capital/income ratio of $\beta = s/g$ by saving a part of its revenue for a short while. A nation will not build up a capital stock large enough to equal six years' worth of revenue, for instance, if

it begins with no capital and saves 12% of its annual national income for a year. It will take fifty years to save the equivalent of six years' income at a savings rate of 12 percent annually, assuming zero capital. Even at that point, the capital/income ratio will not equal six since, by then, the nation's income will have increased significantly over the previous fifty years. Hence, the first thing to keep in mind is that money doesn't accumulate quickly; it will take many decades for the formula β = s /g to be true. We now know why it took so long for the shocks of 1914–1945 to subside and why it is crucial to approach these issues from a very long historical perspective. While wealth may sometimes accumulate swiftly at the individual level, the change of the capital/income ratio, as defined by the rule β = s /g, is a long-term process at the national level.

Thus, this rule differs significantly from the equation z = r × β, which I referred to as the first basic law of capitalism in 1. That rule states that the average rate of return on capital (r) multiplied by the capital/income ratio (β) equals the proportion of capital income in national income (ʒ). It is crucial to understand that the rule ϭ = r × β is, by construction, a pure accounting identity that is applicable everywhere and at all time. In fact, rather than being a rule, it might be seen as a definition of the proportion of capital to national revenue. As an economy grows at a rate of g and saves at a rate of s, an equilibrium state will be reached, but this equilibrium state is never fully achieved in reality. In contrast, the law β = s /g is the outcome of a dynamic process. Second, only if one concentrates on those types of capital that humans are capable of accumulating is the rule β = s /g true. Without any contribution from savings, β may be quite large if pure natural resources make up a significant portion of the nation's capital. I'll talk more about the usefulness of non-accumulable capital later.

Ultimately, the validity of the equation β = s /g is contingent upon the average evolution of asset values mirroring that of consumer prices. Without any additional savings, the ratio β between the market value of the country's capital and its yearly income flow might grow significantly if the price of stocks or real estate increases more quickly than other prices. Variations in relative asset values are often far more significant in the near term than volume impacts. Nonetheless, if we suppose that price fluctuations eventually equalize, then the formula β = s /g must be true, irrespective of the rationale behind the nation's decision to set aside a certain percentage of its gross domestic product for savings. It is important to emphasize that the rule β = s /g operates independently of the causes behind the wealth accumulation of a nation's citizens or government. In reality, individuals gather capital for a variety of reasons: to boost consumption in the future; to gather or protect riches for the next generation; or to reclaim the status, security, or power that typically accompany wealth. Generally speaking, all of these reasons exist simultaneously in different proportions depending on the person, the nation, and their age. All of these motives are often blended in a single person, and people may not always be able to express them effectively. In Part Three, I go into great detail about the important consequences that these different accumulation motivations and mechanisms have for wealth distribution and inequality, as well as the part that inheritance plays in structuring inequality and, more broadly, the social, moral, and political rationalization of wealth disparities. Right now, all I'm doing is outlining the workings of the capital/income ratio. I wish to emphasize that the equation β = s /g holds true in any situation, regardless of the precise causes behind a nation's savings rate. This is because, in a nation that saves a portion s of its income, which increases at a pace g, β = s /g is the only s capital/income ratio. The reasoning is simple. Allow me to explain with an example. To put it simply: if a nation saves 12 percent of its annual revenue and its starting capital stock is equivalent to six years' worth of income, the capital stock will increase at a rate of 2 percent each year, precisely matching the rate of national income and maintaining the capital/income ratio at s. A savings rate of 12 percent, on the other hand, will cause the

capital stock to grow at a rate greater than 2 percent per year and, consequently, faster than income if the capital stock is less than six years' worth of income. As a result, the capital/income ratio will rise until it reaches its equilibrium level.

On the other hand, a savings rate of 12 percent indicates that capital is increasing at less than 2 percent per year, which means that the capital/income ratio cannot be sustained at that level and would instead decline until it achieves equilibrium if the capital stock is larger than six years' worth of income annually. If the average asset price changes at the same pace as consumption prices over time, the capital/income ratio tends to gravitate toward its equilibrium level, $\beta = s/g$, in each situation. To sum up, the law $\beta = s/g$ helps us understand the potential equilibrium level toward which the capital/income ratio tends in the long run, once the effects of shocks and crises have subsided, but it does not explain the short-term shocks to which the capital/income ratio is subject, any more than it explains the existence of world wars or the 1929 crisis—events that can be taken as examples of extreme shocks.

Beyond Bubbles: High Savings, Low Growth

I start with the first mechanism, which is based on the dynamic rule $\beta = s/g$ and slower development combined with continuous high saving. The average growth rates and rates of private savings in the eight wealthiest nations from 1970 to 2010 are shown below. Over the last several decades, all developed nations have had very comparable rates of rise in per capita national income. Significant discrepancies might arise when comparing over a few-year period, which often incites national pride or envy. However, when examining averages over extended timeframes, it becomes evident that the wealthy nations are seeing growth at a nearly same pace. In the eight most developed nations between 1970 and 2010, the average annual rate of increase of per capita national income varied from 1.6 to 2.0 percent, often staying between 1.7 and 1.9 percent. It is by no means assured that such minor variations are statistically significant given the limitations of the available statistical measures.

Regardless, these variations pale in comparison to variations in the pace of population expansion. Populations in Europe and Japan expanded at less than 0.5 percent annually between 1970 and 2010, whereas populations in the US, Canada, and Australia rose at 1.0 to 1.5 percent annually. As a result, from 1970 to 2010, the United States and the other new nations saw far greater overall growth rates than either Europe or Japan—roughly 3% annually in the former, compared to just 2% in the latter. Even while these variations may not seem like much, they add up over time to become rather substantial. Here is the key point I want to emphasize: these variations in growth rates have a significant impact on capital accumulation over the long term, which helps to explain why the capital-to-income ratio is fundamentally larger in Europe and Japan than it is in the US.Table 1 depicts the Growth rates and saving rates in rich countries, 1970– 2010.

Table 1: Illustrates the Growth rates and saving rates in rich countries, 1970– 2010.

Country	Growth rate of national income (%)	Growth rate of population (%)	Growth rate of per capita national income (%)	Private saving (net of depreciation) (% national income)
United States	2.8	1.0	1.8	7.7
Japan	2.5	0.5	2.0	14.6
Germany	2.0	0.2	1.8	12.2
France	2.2	0.5	1.7	11.1
Britain	2.2	0.3	1.9	7.3
Italy	1.9	0.3	1.6	15.0
Canada	2.8	1.1	1.7	12.1
Australia	3.2	1.4	1.7	9.9

When looking at average savings rates from 1970 to 2010, one can see that there are still significant differences between the various countries. While private savings rates typically range from 10 to 12 percent of national income, they can be as high as 14–15 percent in Japan and Italy and as low as 7–8 percent in the United States and Britain. These discrepancies add up over forty years to produce notable variance. It should be noted that, while the relationship is far from systematic, the nations that save the most tend to be those whose populations are aging and stagnating. As previously said, there are a variety of reasons why someone may decide to save more or less, and it should come as no surprise that a wide range of variables are involved, just as they are when making choices about having children and immigration, both of which eventually affect the demographic growth rate.

Now that growth and savings rates have been combined, it is simple to see why various nations acquire vastly different amounts of capital and why the capital-to-income ratio has increased dramatically since 1970. Japan is a prime example of this: with an annual savings rate of around 15 percent and a growth rate of little more than 2 percent, it should come as no surprise that over time Japan has amassed a capital stock equivalent to six to seven years' worth of GDP. This naturally follows from the dynamic rule of accumulation, where $\beta = s / g$. Similarly, the fact that the US has a far lower capital/income ratio than Japan—despite saving considerably less and expanding faster—is also not unexpected.

More broadly, the levels of private wealth predicted by the savings flows seen between 1970 and 2010 and the actual levels of wealth recorded in 2010 for the majority of nations are shown to be rather close.9. There is some discrepancy in the correlation, indicating that other variables are equally important. For example, in the case of the United Kingdom, the rate of savings seems to be insufficient to account for the sharp increase in individual wealth during this time. Beyond the specifics of this or that nation, however, the findings are generally fairly consistent: without assuming a large structural increase in the relative price of assets, it is possible to explain the key aspects of private capital accumulation in the rich countries between 1970 and 2010 in terms of the amount of savings between those two dates. Put another way, changes in the values of stocks and real estate always have the most impact in the short and even medium term, but they usually even off over the long term, when volume impacts seem to be the deciding factor.

The Japanese situation is representative once again. It is evident that the emergence of a bubble in stocks and real estate, which burst, was the main cause behind the dramatic rise in the capital/income ratio in the 1980s and the subsequent strong decline in the early 1990s. However, volume effects clearly outweighed price effects when analyzing the evolution seen over the whole 1970–2010 period. For example, the flow of savings almost perfectly predicted the rise in private wealth in Japan from three years of national income in 1970 to six in 2010.

CONCLUSION

The historical foundations of slave capital, buried in systems of enslavement throughout civilizations, continue to cast a long shadow on current communities. Persistent issues with structural inequality, racial imbalances, and the continuous fight for social justice are clear indications of the lasting impact of these past atrocities. In order to solve the enduring problems that exist in cultures still dealing with the effects of slavery, it is essential to acknowledge this past. However, the idea of human capital represents a paradigm change in economic theory, seeing people as more than just labor inputs. The recognition of wellbeing, education, and skills as essential elements of human capital highlights a more progressive strategy for economic growth—one that places a premium on people's whole development

and empowerment. The interdependence between slave capital and human capital is obvious in modern difficulties, as historical injustices continue to impact the possibilities and results for diverse groups within society. The constant discussions about racial equality, reparative justice, and structural change highlight how important it is to address the long-lasting impacts of slave capital on the growth of human capital in contemporary communities.

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CHAPTER 10

PRIVATIZATION OF WEALTH IN THE RICH COUNTRIES

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ABSTRACT:

The phenomenon of the privatization of wealth in affluent nations, examining the trends, implications, and socioeconomic dynamics associated with the increasing concentration of wealth in private hands. The analysis navigates through the historical context, policy frameworks, and societal ramifications that have contributed to the rise of private wealth accumulation in some of the world's wealthiest countries. As a defining characteristic of modern economic landscapes, the privatization of wealth reflects the shift in ownership structures and the growing influence of private individuals and corporations in controlling substantial financial resources. This abstract investigates the historical evolution of this trend, tracing its roots in economic policies, globalization, and technological advancements that have facilitated the accumulation of wealth by a relatively small segment of society. The implications of privatized wealth are multifaceted, impacting income inequality, social mobility, and the overall fabric of societies. The abstract delves into how concentrated wealth influences political power dynamics, shapes public policy agendas, and contributes to disparities in access to education, healthcare, and economic opportunities. Additionally, it explores the effects on intergenerational wealth transfer, philanthropy, and the broader societal perception of economic fairness.

KEYWORDS:

Affluent Nations, Economic Equity, Globalization, Income Distribution, Income Inequality, Privatization, Wealth.

INTRODUCTION

To be clear, private savings are divided into two categories: savings made directly by private individuals and savings made by firms on behalf of the private individuals who own them. In the case of individual firms, the savings are made directly, while in the case of firms acting as agents of the private individuals, they are saved indirectly through financial investments. In some nations, the quantity of private savings may be partially attributed to this second factor, which consists of company earnings reinvested. If this second aspect of savings were disregarded and household savings were the only ones taken into account, one would come to the conclusion that savings flows are manifestly insufficient to explain the rise in private wealth in all nations.

This would then be primarily explained in terms of a structural increase in the relative price of assets, particularly stock. In accounting parlance, this conclusion would be true, but it would be erroneous in terms of economics. In essence, retained earnings enable businesses to grow larger and add more capital, rather than a price effect, explaining why stock prices typically rise faster than consumption prices over time. However, the price impact mostly vanishes when retained earnings are taken into account when calculating private savings [1], [2].Table 1 depicts the private saving in rich countries, 1970– 2010.

Table 1: Illustrates the private saving in rich countries, 1970– 2010.

Country	Private saving (net of depreciation) (% national income)	Incl. household net saving (%)	Incl. corporate net saving (net retained earnings) (%)
United States	7.7	4.6	3.1
Japan	14.6	6.8	7.8
Germany	12.2	9.4	2.8
France	11.1	9.0	2.1
Britain	7.4	2.8	4.6
Italy	15.0	14.6	0.4
Canada	12.1	7.2	4.9
Australia	9.9	5.9	3.9

It may be advantageous for the owners of capital to pay only a limited portion of profits as dividends and allow the remaining amount to accumulate and be reinvested in the company and its subsidiaries. In reality, from the perspective of shareholders, profits paid out directly as dividends are frequently more heavily taxed than retained earnings. The capital gains can be realized by selling some shares later. Furthermore, the variance in retained profits as a percentage of total private savings among nations may be mostly attributed to variations in legal and tax systems; these are accounting discrepancies rather than real economic disparities. Retained profits are best treated as savings achieved on behalf of the company's owners and, as such, as a part of private saving under these circumstances. It is important to clarify that the concept of savings in relation to the dynamic legislation The savings expressed as $\beta = s/g$ represent savings after capital depreciation, or really fresh savings, or the portion of total savings that remains after subtracting the amount required to account for deterioration of buildings and equipment.

Table 2: Illustrates the Gross and net saving in rich countries

Country	Gross private savings (% national income)	Minus: Capital depreciation (%)	Equals: Net private saving (%)
United States	18.8	11.1	7.7
Japan	33.4	18.9	14.6
Germany	28.5	16.2	12.2
France	22.0	10.9	11.1
Britain	19.7	12.3	7.3
Italy	30.1	15.1	15.0
Canada	24.5	12.4	12.1
Australia	25.1	15.2	9.9

The distinction is significant because, in developed economies, annual capital depreciation typically accounts for 10–15 percent of national income and consumes almost half of total savings, which typically account for 25–30 percent of national income. This leaves net

savings at 10–15 percent of national income. Specifically, the majority of retained earnings are typically allocated to the upkeep of buildings and equipment, and the amount that remains to finance net investment is often quite small (few percent of net income at most) or even negative within the event that retained earnings are not sufficient to cover capital depreciation. The capital stock can only rise by definition if there are net savings: Savings used to offset depreciation only guarantee the stability of the current capital stock [3], [4].Table 2 depicts the Gross and net saving in rich countries.

Durable Goods and Valuables

Lastly, I want to be clear that purchases of permanent things for the home, such as furniture, appliances, cars, and the like, do not fall within the definition of private saving as it is used here, and hence, private wealth. I am adhering to international rules for national accounting in this regard, which classify durable home products as things intended for immediate use. However, this is not very significant for my purposes because, in all wealthy nations, estimates show that the total value of durable household goods ranges between 30 and 50 percent of national income over the 1970–2010 period, with no discernible trend. Durable goods have also historically represented a relatively small share of total wealth, which has not changed much over time. In other words, with a national income of around 30,000 euros per capita in the early 2010s, everyone owned furniture, refrigerators, vehicles, and other items valued at an average of between a third and half a year's salary, or 10,000–15,000 euros per capita. This is a substantial sum that makes up the majority of the wealth possessed by a sizable portion of the populace. However, this is just a minor additional amount when compared to total private wealth, which is five to six times the national income, or 150,000 to 200,000 euros per individual, with half of that amount coming from real estate and the other half from net financial assets and company capital. In practical terms, adding durable items to private wealth would only marginally alter the overall development by adding 30 to 50 percent of national income to the curves. Even with the recent increase in the price of gold, these treasures still make up a very tiny portion of overall private wealth since, by most accounts, their value is much lower than that of durable products[5], [6].

Interestingly, historical estimates that are now available suggest that these orders of magnitude have not altered much over time. In general, estimates of the value of durable commodities during the nineteenth and twentieth centuries range from 30 to 50 percent of national revenue. Gregory King's approximations of the wealth of the British people circa 1700 indicate the same thing: the whole worth of china, furniture, and other items accounted for around thirty percent of national revenue. However, throughout time, the percentage of wealth represented by jewels and precious artifacts seems to have declined, from 10–15 percent of the national income in the late 19th and early 20th centuries to 5–10 percent now. Around 1700, King claims that the overall worth of these items reached as high as 25–30% of the country's GDP. All in all, these are pitiful sums in comparison to the overall accumulated wealth in Britain, which is estimated to be almost seven years' worth of national revenue, mostly in the form of capital goods such as homes, farms, and other buildings, about which King is ecstatic.

Private Capital Expressed in Years of Disposable Income

Furthermore, take note that if I had stated total private wealth, instead of total national income, as I have done up to this point, in terms of years of disposable income, the capital/income ratio in the affluent nations in the 2000s and 2010s would have reached even higher levels—undoubtedly the greatest ever documented. This seems like a technical problem that needs further explanation.

Disposable household income, as the name suggests, quantifies the amount of money that households in a certain nation directly discard. One must sum up all monetary transfers and subtract all taxes, fees, and other mandatory payments from national income in order to arrive at disposable income. Governments had little influence over social and economic matters until the start of the 20th century, which is why the capital/income ratio seems higher when stated in years of national income (disposable income was typically about 90% of national income). Over the course of the 20th century, the state's involvement expanded significantly, to the point that, in wealthy nations, disposable income now makes up between 70 and 80 percent of total national revenue. This leads to a much bigger total private wealth expressed in years of disposable income. For instance, in wealthy nations in the 2000s, private capital amounted to four to seven years' worth of national revenue, or five to nine years' worth of disposable income[7], [8].

There is merit to both methods of calculating the capital/income ratio, depending on how the issue is framed. The ratio highlights purely financial realities when represented in terms of disposable income and shows us the amount of wealth relative to the actual income that families can afford. This is representative of the family bank account in a sense, therefore it's critical to remember these orders of magnitude. It is essential to acknowledge, therefore, that the disparity between disposable income and gross national product is a measure of the worth of public services that families get, particularly those that are directly funded by the public purse and include health and education. These "transfers in kind" are as important to disposable income as monetary transfers since they save the relevant persons from having to pay equivalent amounts to for-profit providers of healthcare and education. Disregarding these in-kind transfers might potentially skew certain evolutionary analyses or cross-national comparisons. For this reason, I thought it better to represent wealth in terms of years of national income as doing so would be embracing an economic definition of income. In this case, the ratio of the capital stock to the flow of national revenue is what I always mean when I speak to the capital/income ratio without providing any more context.

The Issue Concerning Foundations and Other Capital Holders

Keep in mind that, in the sake of completeness, I have included in my definition of private wealth the assets and liabilities owned by foundations and other nonprofit organizations in addition to those of private persons. To be clear, only foundations and other organizations that get the majority of their funding from private contributions or the sale of their assets fall under this category. Governmental organizations are defined as those that rely mostly on public subsidies, whereas businesses are defined as those that rely primarily on the sale of products. In actuality, each of these divisions is flexible and permeable. As a unique kind of ownership that is in between strictly public and purely private ownership, it is fairly arbitrary to consider the wealth of foundations as either public or private wealth, or to put it in a separate category. When we consider the property that churches have owned over the years, or the property that organizations like Doctors without Borders and the Bill and Melinda Gates Foundation currently own, it becomes evident that we are dealing with a diverse group of moral people who are pursuing a range of particular goals.

However, keep in mind that the stakes are normally low since moral people typically possess far less money than what physical people keep for themselves. Foundations and other non-profit organizations own less than 10 percent and typically less than 5 percent of the total private wealth, according to estimates available for the most prosperous nations between 1970 and 2010. However, there are notable differences between the countries: barely 1 percent in France, roughly 3–4 percent in Japan, and as much as 6–7 percent in the United States. According to historical records that are now available, the whole value of church-

owned property throughout eighteenth-century France was equivalent to around 50–60% of the country's revenue, or 7–8% of all private wealth.17 Put another way, during the Ancien Régime in France, the Catholic Church had a larger amount of property than do affluent US foundations today. It's interesting to note that despite this, the two levels are not too far apart.

These are significant wealth holdings, particularly when weighed against the little net worth that the government has accumulated over the years. However, foundation wealth is still very little when compared to the entire wealth of private individuals. Specifically, when examining the overall long-term development of the ratio of private capital to national income, it makes little difference whether or not we include foundations. Furthermore, inclusion is warranted by the difficulty in drawing a clear distinction between nonprofit organizations and foundations that are considered to serve the public interest and other legal entities, such as trust funds and foundations, which are utilized by wealthy people to manage their assets and pursue their personal goals. In Part Three, I will return to this sensitive topic and go over the dynamics of global wealth disparity in the twenty-first century, with a focus on enormous wealth in particular.

DISCUSSION

Using the formula $\beta = s/g$, the relatively quick rise in private wealth witnessed in the affluent nations between 1970 and 2010, particularly in Europe and Japan, may therefore be substantially explained by slower growth combined with persistently high savings. I will now go back to the two additional complementing phenomena that I discussed earlier and that enhanced this mechanism: the long-term "catch-up" of as-set prices and the privatization, or the progressive transfer of public resources into private hands. I start with the commercialization of society. In recent decades, the share of public capital in national capital has drastically decreased, particularly in France and Germany, where net public wealth used to account for up to 25% or even 33% of total national wealth between 1950 and 1970, but now it only makes up a small percentage. This trend is a fairly universal phenomena that has impacted all eight of the major developed economies: between 1970 and 2010, there was a steady decline in the public capital to national income ratio and an increase in the private capital to national income ratio. Put another way, the privatization of government resources has contributed to the resurgence of private wealth. National capital did, in fact, rise as the growth in private capital was always larger than the decline in public capital. However, because of privatization, it grew more slowly than private capital[9], [10].

Italy is a particularly glaring example. In the 1970s, net public wealth was marginally positive; however, when significant government deficits increased in the 1980s, net public wealth somewhat went negative. Between 1970 and 2010, the total quantity of public wealth fell by an amount equivalent to over a year's worth of national revenue. Simultaneously, private wealth increased by around four and a half years, from only two and a half times the national income in 1970 to over seven times in 2010. Stated differently, the percentage of the decline in public wealth that was not inconsequential was between one-fifth and one-quarter of the growth in private wealth. While private wealth experienced exceptional growth that was somewhat misleading because nearly a quarter of it reflected growing debt that one portion of the Italian population owed to another, national wealth actually increased significantly in Italy, rising from approximately two and a half years of national income in 1970 to about six in 2010. The Italians, or at least those with the means, loaned money to the government by purchasing government bonds or other public assets, increasing their private wealth without boosting the national wealth, in place of paying taxes to balance the government's budget. In fact, national savings in Italy from 1970 to 2010 were less than 10% of national revenue, despite a fairly high rate of private saving. Put another way, government

deficits consumed over one-third of private savings. All the wealthy nations follow a similar trend, but one that is often less severe than in Italy: public saving was negative in the majority of them. Over the decade of 1970–2010, government deficits in France, Britain, Germany, and the United States surpassed public investment by 2-3% of national income on average, whereas in Italy, the difference was over 6%[11], [12].

A large amount of the growth in private wealth in all the wealthy nations was caused by public dissaving and the ensuing decline in public wealth. Although it wasn't the main factor contributing to the rise in personal wealth, it nevertheless warrants consideration. Furthermore, it's probable that the estimates that are now available undervalue public assets from the 1970s, particularly in Britain. If this is the case, we would underestimate the extent to which public wealth was transferred to private hands. If accurate, this would provide an explanation for the significant rise in British private wealth between 1970 and 2010, even in the face of a glaringly low rate of private savings. This was especially true during the waves of public company privatizations that occurred in the 1980s and 1990s, which frequently involved infamously low pricesa move that, of course, ensured the policy would be well-liked by consumers.Table 3 depicts the Private and public saving in rich countries,

Table 3: Illustrates the Private and public saving in rich countries,

Country	National saving (private + public) (net of depreciation) (% national income)	Private saving (%)	Public saving (%)
United States	5.2	7.6	−2.4
Japan	14.6	14.5	0.1
Germany	10.2	12.2	−2.0
France	9.2	11.1	−1.9
Britain	5.3	7.3	−2.0
Italy	8.5	15.0	−6.5
Canada	10.1	12.1	−2.0
Australia	8.9	9.8	−0.9

It is crucial to remember that these transfers of wealth from the public to the private sectors did not occur just in wealthy nations after 1970—far from it. Every continent has the same overall trend. Globally, it is evident that the nations of the former Soviet bloc had the greatest privatization in recent memory, if not throughout capital history.

According to our very imprecise calculations, net public wealth was very low, as was the case in wealthy nations, while private wealth in Russia and the former Eastern Bloc countries was about equivalent to four years' worth of national revenue in the late 2000s and early 2010s. Estimates for the 1970s and 1980s, before the fall of the Berlin Wall and the fall of the communist regimes, are even less precise, but all indications point to a strictly opposite distribution: public capital represented the majority of national capital and all industrial capital, amounting, roughly speaking, to three to four years' worth of national income, while private wealth was negligible. Put another way, the public-private divide was completely reversed at first glance, while the stock of national capital remained unchanged.

In conclusion, there is little doubt that saving or the dynamic equation β = s /g have nothing to do with the extremely significant increase in private wealth that occurred in Russia and Eastern Europe between the late 1980s and the present, and in certain instances, the very quick enrichment of particular people. It resulted from the government's transfer of capital ownership to private persons, plain and simple. One may consider the privatization of national wealth that has occurred in developed nations since 1970 to be a highly milder version of this extreme scenario.

The Unprecedented Recovery in Asset Prices

The historic recovery in asset prices over the last few decades is the final factor accounting for the rise in the capital/income ratio. Stated differently, it is impossible to properly analyze the years 1970–2010 without placing them within the larger historical framework of 1910–2010. Not many industrialized nations have complete historical records accessible, but the ones I have established for the United States, Britain, France, and Germany provide reliable findings, which I outline. If we look at the complete period 1910–2010, or 1870–2010, we find that the worldwide development of the capital/income ratio is extremely well described by the dy- namic equation β = s /g. Specifically, the disparities in saving rates and growth rates over the last century are entirely compatible with the fact that Europe has a fundamentally greater capital/income ratio than the US over the long term.20 The reduction seen between 1910 and 1950 may be explained by low national savings and the devastation caused by war. The fall in growth rate between these two eras also explains why the capital/income ratio increased more quickly between 1980 and 2010 than it did between 1950 and 1980.

However, the 1950s' low point was not as high as the formula β = s /g, which summarizes the basic logic of accumulation, would have suggested. We also need to include the fact that, for a variety of reasons, the price of stocks and real estate dropped to all-time lows following World War II, which helps us comprehend the extent of the mid-1900s low. These asset values began to rise again after 1950, especially after 1980. My calculations indicate that the historical catch-up procedure is now finished: With the exception of volatile short-term price fluctuations, the rise in asset values between 1950 and 2010 seems, on the whole, to have made up for the fall in prices between 1910 and 1950. However, drawing the conclusion that asset prices will henceforth rise at precisely the same rate as consumer prices and that the period of structural asset price rises is gone would be dangerous. One reason is that price comparisons over such extended periods of time are, at best, approximations due to the inadequate and imperfect historical data. In addition, there exist several theoretical explanations for why asset values could exhibit distinct price evolution over an extended period. For instance, some asset classes, such infrastructure and buildings, are subject to distinct technology advancements relative to other economic segments. Furthermore, it may also matter that certain natural resources are not replenishable.

Last but not least, it is critical to emphasize that the price of capital is always, at least in part, a social and political construct. It reflects each society's conception of property and is dependent on the numerous institutions and policies that govern relations between various social groups, particularly between those who own capital and those who do not. This is true even after accounting for the recurring short- and medium-term bubbles and potential long-term structural divergences. This is evident, for instance, in the case of real estate prices, which are governed by regulations that set rent controls and regulate the interactions between landlords and renters. As I said while talking about the reasons why stock prices are relatively low in Germany, the law also has an impact on stock market values. In this regard, examining the relationship between a company's stock market valuation and accounting value during the

years 1970–2010 in the nations where such data are accessible is intriguing. A corporation's stock market capitalization is the market worth of the company that is listed on the stock exchange. The market value is determined for national accounting purposes using observed stock prices for listed firms that are as similar as possible to those of the unlisted firm, while taking into account the "liquidity" of the market in question, for companies that are not so listed, either for the reason they are too small or for the reason they choose not to finance one another via the stock market.To far, I have measured the stocks of both national and private wealth using market valuations. The total of all outstanding debt less the cumulative value of all assets—buildings, machinery, patents that have expired majority or minority stakes in subsidiaries and other businesses, vault cash, and so forthincluded in the firm's balance sheet is the accounting value of the business, also known as value, net assets, or own capital.

Theoretically, the market value and a firm's value should be equal in the absence of any uncertainty, and their ratio should thus equal 1. When a firm is founded, this is often the situation. The market value and value will both equal 100 million euros if the shareholders subscribe for 100 million euros worth of shares, which the company utilizes to purchase offices and equipment worth 100 million euros. The net asset value and stock market capitalization of the company will remain at 100 million euros even if it takes out a loan of 50 million euros to purchase new equipment valued at 50 million euros. The same will happen if the company makes 50 million in profits and chooses to set aside 50 million to fund new investments: the stock price will grow by the same amount, bringing the total value and market value up to 150 million.

The challenge stems from the fact that predicting the firm's future becomes more intricate and unpredictable by the day. For example, after a while, nobody is quite clear whether the 50 million euros that were invested a few years before are still beneficial to the company financially. At that point, the value could deviate from the market value. The company's valuation won't alter since it will keep listing investments at their market value on its balance sheet, including those in new offices, equipment, infrastructure, patents, and other items. Based on whether the financial markets have suddenly grown more optimistic or pessimistic about the firm's capacity to leverage its investments to produce new business and profits, the firm's market value, or its stock market capitalization, may be much lower or greater. That is why, in actuality, one usually notices significant fluctuations in the ratio of the market value to the worth of particular enterprises. This ratio, also referred to as "Tobin's Q," ranged from less than 20 percent to over 340 percent for French companies included in the CAC 40 in 2012. It is more challenging to comprehend why Tobin's Q should systematically be bigger or less than 1 when calculated for all enterprises in a particular nation combined. Two traditional interpretations have been offered. It stands to reason that the market value would be fundamentally higher than the value if certain immaterial investments are not included in the balance sheet calculations. This might account for the somewhat higher than 1 ob-served ratios seen in the United States and, notably, Britain in the late 1990s and early 2000s. However, stock market bubbles in both nations are also reflected in these ratios larger than one: When the Internet bubble burst in 2001–2002 and during the 2008–2009 financial crisis, Tobin's Q dropped quickly toward 1.

On the other hand, it makes sense that a company's market value would be structurally lower than its value if its stockholders do not have complete control over the business, for example, because they must make concessions in a long-term relationship with other "stakeholders," as we previously saw in the case of "Rhenish capital-ism." This might help to explain the somewhat higher ratios that were seen in France, Germany, and Japan in particular throughout the 1990s and 2000s, when the percentage of English and US enterprises was at or

over 100%. It should be noted that prices observed in recent stock transactions are used to compute stock market capitalization. These prices often correlate to purchasers seeking modest minority holdings rather than buyers looking to acquire control of the company. In the latter instance, it is customary to pay a price that is around twenty percent above than the going market rate. This discrepancy could be sufficient to account for a Tobin's Q of around 80% even in the absence of any stakeholders other than minority shareholders.Apart from these intriguing cross-national variances, which highlight the fact that national laws and institutions constantly influence the cost of capital, it is possible to see a general trend of rising Tobin's Q in wealthy nations since 1970. This is the result of the asset prices' historic comeback. All told, if we take account of both greater stock market prices and higher real estate prices, we can claim that the recovery in asset values accounted for one-quarter to one-third of the rise in the ratio of national capital to national income in the affluent nations between 1970 and 2010.

CONCLUSION

Wealth privatization in wealthy countries is a complicated and diverse phenomena with significant ramifications for political ideologies, social structures, and economic environments. The historical background, legal frameworks, and socioeconomic processes related to the growing concentration of wealth in the hands of a small number of individuals in some of the richest nations on Earth have all been covered in this abstract. The historical development of wealth privatization highlights how economic policies, globalization, and technical developments have shaped modern ownership arrangements. This concentration of wealth has far-reaching consequences that affect income inequality, social mobility, and opportunity distribution within nations. The abstract clarified the ways in which the privatization of wealth affects the balance of power in politics, directs public policy agendas, and fuels inequality in access to chances for employment and basic services. Furthermore, the abstract has emphasized how tax laws, regulations, and governmental policies may either exacerbate or lessen the tendencies related to wealth privatization. Continual discussions about wealth redistribution, social justice campaigns, and the possible fallout from unbridled private wealth creation highlight the need of purposeful legislative interventions to deal with the problems associated with concentrated wealth.

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CHAPTER 11

CAPITAL-LABOR SPLIT IN THE TWENTY-FIRST CENTURY

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ABSTRACT:

The evolving landscape of the capital-labor split in the twenty-first century, examining the shifting dynamics, consequences, and policy considerations associated with the distribution of economic gains between capital and labor. The analysis navigates through the technological advancements, globalization, and changing labor markets that contribute to the ongoing transformations in the capital-labor relationship. The twenty-first century has witnessed a notable shift in the distribution of wealth, with a growing divergence between returns to capital and wages. This abstract explores the factors influencing this trend, including automation, artificial intelligence, and the integration of global supply chains. It investigates how these technological and economic shifts impact income inequality, job polarization, and the overall economic well-being of individuals and communities the capital-labor split extend beyond economic realms, influencing social cohesion, political landscapes, and the perception of fairness within societies. The abstract delves into how disparities in wealth accumulation contribute to social tensions, shape political narratives, and challenge traditional notions of economic justice. It also explores the potential consequences for social mobility, intergenerational wealth transfer, and the sustainability of economic systems.

KEYWORDS:

Capital, Capital-Labor Split, Economic Development, Economic Inequality, Globalization, Income Distribution.

INTRODUCTION

The formula $\beta = s/g$ only works for types of money that can be saved. It does not consider the value of natural resources that have not been changed by people, like land that is in its original state. The law $\beta = s /g$ helps us understand most of the capital stock in 2010. This means that there is only a little bit of national capital that comes from land. How much exactly. We don't have enough information to give a clear answer to this question. Let's think about the farmland in a countryside where things are done the traditional way. It's hard to figure out how much of the land's value comes from its natural state and how much is from all the changes and investments people have made to it over time. In the 1700s, the farmland in France and Britain was worth about four times the amount of money the whole country made in a year. Modern calculations show that most of the value was made up of investments and improvements, likely more than three-quarters. The pure land's value is about the same as what the country earns in one year, and maybe even less than that. This conclusion is mainly because a lot of work and money was needed to make the land better, which was about 3-4% of the nation's income. With slow growth of less than 1 percent per year, the total value of these investments was almost the same as the total value of the land. In 1795, Thomas Paine told French leaders that about 10% of a country's wealth comes from land that hasn't been developed. This is a little more than half of the country's yearly income[1], [2].

However, these estimates are only a rough guess. When the economy isn't growing much, even small changes in how much money people invest can make a really big difference in how much money they have in the long run. The main thing to remember is that even in a traditional society, most of the country's money came from saving and investing. The only thing that might have changed is that the value of land didn't decrease as much as modern real estate or business investments, which need to be fixed or replaced more often. This might make people think that modern money is more active. However, because we don't have much data about how people invest in rural areas, it's hard to say for sure. It's hard to compare the value of land from a long time ago with its value today. Today, the main problem is about land in cities. Farmland is only worth a small percentage compared to the total income in France and Britain. It is hard to figure out the value of urban land today without taking into account buildings, infrastructure and other improvements. This is similar to how it was hard to measure the value of farmland in the 18th century. In my opinion, the money invested each year for the last few decades can explain most of the total value of wealth, including real estate, in 2010. In simpler terms, the increase in the worth of cities and land cannot be explained by just the value of farmland in the past. There is a lot of uncertainty. Two more things are important to talk about. In rich countries, the amount of money and property, especially in real estate, can mostly be explained by people saving and investing. But there can still be big increases in property value in certain areas where lots of people live, like big cities. It doesn't really make sense to only talk about investment when explaining why buildings on the Champs-Elysées or anywhere in Paris are getting more expensive. Our calculations show that while real estate values went up in some places, they went down in others like smaller towns or run-down areas. This balances out the overall gains[3], [4].

Secondly, the fact that the land value going up does not seem to explain why rich countries have more money now does not mean it will always be like that in the future. The value of land and natural resources may not stay the same for a long time. I will talk about this later when I look at how much money and assets oil-exporting countries have from other countries.

DISCUSSION

We now have a pretty good understanding of how capital and income balance each other out, as described by the equation $\beta = s / g$. In simple words, the amount of money and assets we have in the long-term depends on how much we save and how much our money grows. These two big social factors depend on the decisions of lots of people, which are influenced by many different things like society, money, culture, and population. The factors can change a lot from time to time and from one country to another. Also, they mostly do not rely on each other. This information helps us understand why the amount of money a country makes compared to its wealth can be different in different places and times. This is true even if the cost of money and natural resources changes a lot over time. From the amount of money you have compared to the amount you earn, to how much money goes to capital and how much goes to workers. Now I will look at how the money earned in a country is divided between the work people do and the money invested in businesses. The equation $\breve{U} = r \times \beta$ is like a rule for capitalism. It helps us switch between the two things easily. For instance, if the money invested in businesses is the same as six years of the country's total earnings, and the average profit made from that money is 5 percent per year, then the portion of the total earnings that comes from the money invested is 30 percent. So the main question is: How do we figure out how much money we can make from our investments. First, I will look at how things have changed over a long time. Then, I will explain the theories and factors that affect how much money we can make[5], [6].

Estimating Flows is harder than estimating stocks

Another important thing to consider is how nonwage workers like investors and business owners make money, which can be hard to separate from other income. Certainly, this issue is not as significant as it used to be because most business activity now revolves around companies, so a company's finances are separate from the individuals who invest in it. In this company, there is a clear difference between paying workers and paying investors. Partnerships and sole proprietorships are not the same. In a sole proprietorship, the business and personal accounts of the owner are often mixed together. Today, in rich countries, about 10 percent of the things made are done by people who don't get paid a salary in their own businesses.

This is about the same as the proportion of people who work without being paid in the total working population. People who don't get paid by the hour mostly work in small businesses and as professionals. For a long time, this group also had many farmers who worked on their own. But now, most of these farmers are gone. In these small businesses, it's hard to tell how much money is being made just from investing in the company. For example, a radiologist's earnings come from both her work and the expensive equipment she uses. The hotel owner and small farmer are also the same. So we can say that people who don't get paid a salary have a "mixed" income, because they earn money both from working and from investments. This is also called "income from being an entrepreneur.

To divide the money made from a mix of capital and labor, I used the same average way of dividing it as the rest of the economy. This choice seems to be the best and gives similar results to the other two methods usually used. It is still a guess, because it's not clear how to separate money made from investments and money made from work when someone's income comes from both. Right now, this doesn't really matter because only a small part of the national income comes from mixed income. The uncertainty about how much of capital's share is in mixed income only affects a small percentage of the national income. In the past, especially in the 18th and 19th centuries, when people had more than one source of income, there were a lot of uncertainties. These uncertainties could have been a bigger problem back then. That's why it's hard to know exactly how much capital was used in the 18th and 19th centuries [7], [8].

Despite these warnings, I believe my guesses about how much of the country's money landlords and other capital owners received in the 18th and 19th centuries are accurate. In Britain and France, landlords alone got 20% of the money made in the country during that time period. Farmland didn't make as much money as other types of capital, like factories, but it still made more money than average. This is based on the very high profits that factories made, especially in the first half of the 19th century. Due to not having perfect data, it's better to give a range of numbers (between 35 and 40 percent) instead of just one specific number. In the 1800s and 1900s, it is likely that we have a better idea of how much money people had invested in things like factories and businesses than how much money they were making from their work. This is still mostly true today. That's why I decided to focus on how the amount of money people have compared to their income has changed over time, instead of looking at how much of the money is made by workers compared to the money made by the owners of businesses, which is what most economists have focused on in the past [9], [10].

Another reason for uncertainty is that national accounts don't consider the work or attention required for investing. This makes me think that the average rates of return may be overestimated. So, I also show what the "pure" rate of return on capital might be. To make it clear, the expenses of managing money and using financial services are subtracted from the

money made on investments when figuring out the average profit rate. However, this is not true for "informal" financial trading: every investor spends time managing their own portfolio and determining which investments will make the most profit. This work is like starting a business.

It is hard to figure out how much informal work is worth, so it's not included in official reports. In theory, you would need to keep track of how much time you spend on investment activities and figure out how much that time is worth per hour, based on the pay in the financial or real estate industry. One might think that these hidden costs are higher when the economy is growing very fast because people need to change their investments more often and spend more time looking for the best places to invest their money. This happens more often in a very active economy than an economy that is not growing much. For example, it's hard to believe that the average profit on investments of around 10 percent in France after the war is just money made from investing. It's probable that the high returns also include some payment for informal entrepreneurial work. I showed my estimates of how much money can be made from investments in Britain and France at different times, just to give an example. I got these numbers by taking away an estimate of the hidden expenses of managing a portfolio from the average return I saw. The calculated returns are usually 1-2% lower than the actual returns and should be seen as the lowest possible amount. Data shows that larger fortunes earn more, suggesting that managing more money leads to higher returns[11], [12].

The main idea I found from my calculations is this. In France and Britain, from the 1700s to now, the profit on investments has mostly been around 4-5 percent a year, sometimes between 3-6 percent a year. There hasn't been a clear trend going either up or down over a long period of time. The profit went up a lot after the world wars, but then it quickly went back down to the levels it was at before. It might be that the amount of money earned from investments has gone down a little over a long period of time. In the 1700s and 1800s, it was often more than 4-5 percent, but now in the 2000s, it seems to be closer to 3-4 percent as the level of money compared to income goes back to what it used to be. We still don't have enough space to be sure about this last point. We can't say for sure, but it's possible that the amount of money earned from investments will go up in the next few decades. This might happen because there are more countries competing for investments and because financial markets and institutions are getting better at making money from different types of investments. In any situation, the consistent return on investment over a long period of time is very important for this research. To understand this, think about how much money a capital asset makes every year. Back in the old days, a common and not very risky capital asset would make about 5 percent of its value every year. So, the value of the asset was usually calculated to be what it makes in 20 years. At times, it was made longer to twenty-five years.

In old novels from the 1800s, like those by Balzac and Jane Austen, it was assumed that capital and rent were equal at a rate of 5 percent. Writers often didn't talk about the type of money and mainly thought of land and public debt as very similar. They only talked about the income from renting land. For example, we are told that a main character has a lot of money from rent, but we don't know if it's from owning land or from government bonds. It didn't matter because in both situations the income was steady and enough to afford a specific lifestyle and to pass down a familiar social status through generations.Similarly, Austen and Balzac didn't feel the need to say how much money you would make from a certain amount of capital each year. They assumed everyone knew that you would need about 1 million francs to make 50,000 francs of yearly income, no matter what you invested in. In the 1800s, writers and readers thought that having a lot of money and getting a lot of rent each year

meant the same thing. They didn't have any trouble switching between these two ways of measuring wealth because they thought they meant the same thing.

The writers and readers knew that some investments needed more personal involvement, like PèreGoriot's pasta factories or Sir Thomas's plantations in the West Indies in Mansfield Park. Also, the money made from these investments was usually higher, around 7-8 percent or possibly even more if the deal was really good. César Birotteau wanted to make more money by investing in property in the Madeleine area of Paris after doing well in the perfume business. But everyone could see that after the time and effort put into organizing these events, the profit wasn't much higher than the 4-5 percent earned from land and government bonds. In simple terms, the extra money earned was mostly payment for the work put into the business, and the profit from the money invested was usually only around 4-5 percent. Before we can answer these questions, we need to make something else clear. Some people might think it's optimistic to say that the average return on investments is 3-4%, especially when they only get a small amount of money back on their savings. Several things need to be said.

Simply put, they are the profits that money would make if there were no taxes on money or earnings. In Part Four, I will think about how these taxes have been important in the past and might be important in the future as states start competing for money. At this time, I just want to say that there was hardly any financial pressure in the 18th and 19th centuries. In the 1900s, the return on capital was much higher and it is still higher today. This means that after taxes, people are making less money on their investments compared to before taxes. Today, taxes on money and its earnings can be low if you use tax strategies, but usually the tax is high. It's important to know that there are lots of taxes to think about, not just income tax. For example, real estate taxes take away money from investments in real estate, and corporate taxes do the same for money invested in companies. If all these taxes were removed, the profits on investments would be as high as they should be. When you consider all the taxes, the average tax rate on money earned from investments is about 30 percent in most wealthy countries. This is why there is a big difference between how much money the owners should make and how much they actually make from their investments.

The next important thing to remember is that even though the average return is 3-4 percent, some areas have a lot more or a lot less. For people who have only a little bit of money in their checking account, they actually lose money because it doesn't earn any interest and the cost of things keeps going up. Savings accounts don't make much more money than the rate of inflation. Even if a lot of people have these accounts, they don't have a lot of money saved up. Remember that rich countries have half of their wealth in real estate (like houses and buildings) and the other half in financial assets (like stocks and bonds). Most of the money people invest is in stocks, bonds, mutual funds, and long-term financial agreements like annuities and pension funds. Non-interest checking accounts are only a small part of our income and wealth, only about 10-20% of income and 3-4% of total wealth. If we include savings accounts, it makes up just over 30 percent of the money the country makes, or a little more than 5 percent of all the money we have. People are worried that checking and savings accounts don't give much interest. But when you look at the average money made from these accounts, it's not a big deal.

When looking at how much money you make from a property, it's more important to focus on the yearly rent you get from it. For most properties, the rent is usually 3-4% of the property's value. For instance, if you buy an apartment for 500,000 euros, you can make 15,000-20,000 euros in rent every year. People who want to own their own property can save the money they would spend on rent. This is also true for cheaper homes: a 100,000 euro apartment earns 3,000-4,000 euros in rent each year. Also, just to mention, the profit from renting out small

apartments can be as much as 5 percent. The money earned from financial investments, which are the main way rich people make money, is even higher. All the money put into real estate and financial stuff make up most of people's wealth and that helps increase the average return on investment.

CONCLUSION

Studying how money and workers are divided in the 21st century shows that it is changing the economy, society, and policies in a complicated and changing way. This summary has looked at how the distribution of money between businesses and workers is changing, and what can be done about it. The progress in technology and businesses expanding globally are causing a divide between workers and business owners. This creates both good and bad things for the future. Automation and artificial intelligence make things go faster, but they also make the gap between rich and poor bigger and can cause some jobs to disappear. This summary has shown that this trend has many different effects, such as causing problems in society and politics, and making people think about fairness, social mobility, and if our economic systems can last. Thinking about the rules becomes very important for dealing with the effects of the separation between workers and companies. This summary has looked at different ways to help improve things, like making taxes fairer, spending money on education and training, and changing how jobs are set up. Good rules and working together are important for making sure everyone benefits from the economy and the economy grows for everyone.

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CHAPTER 12

CAPITAL-LABOR SUBSTITUTION IN THE TWENTY-FIRST CENTURY

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ABSTRACT:

The phenomenon of capital-labor substitution in the twenty-first century, analyzing the transformative effects of technological advancements on the relationship between capital and labor. The analysis navigates through the rise of automation, artificial intelligence, and digital technologies, investigating how these innovations reshape industries, redefine job roles, and influence economic structures. In the contemporary landscape, technological progress is driving a notable shift in the capital-labor dynamic. This abstract examines the mechanisms of capital-labor substitution, exploring how automation and AI-driven processes are increasingly replacing traditional labor tasks across various sectors. It investigates the impact on productivity, cost structures, and the overall efficiency of industries as they embrace capital-intensive technologies. The economic implications of capital-labor substitution are multifaceted. This abstract delves into how automation and technology-driven efficiency alter income distribution, job markets, and the nature of work itself. It addresses the potential for job displacement, the emergence of new employment paradigms, and the skills required in a workforce adapting to rapid technological change.

KEYWORDS:

Digital Technologies, Economic Development, Economic Dynamics, Efficiency Gains, Income Distribution.

INTRODUCTION

The third thing we need to explain is that the rates of return are actual rates of return. Put simply, it would be a big mistake to try and figure out the inflation rate from these numbers. If you put 10,000 euros in a bank account or bond that doesn't keep up with inflation, it will still be worth the same amount 10 years later, even if prices have gone up. In this situation, the value of the investment has decreased by 50%. This means you can only buy half as much as you could have with the initial investment.

After ten years, your return is -50%, which may or may not have been balanced out by the interest you earned. In times when prices are going up a lot, the interest rate before taking away the inflation rate goes up to a high level, usually higher than the inflation rate. However, the amount of money the investor makes depends on when they invest, how they predict future inflation, and the "real" interest rate, which is the return gained after accounting for inflation. This return could be negative or positive, depending on the situation. The inflation rate needs to be subtracted from the interest rate to find out the actual return on an asset[1], [2].

Real assets change everything. Real estate prices usually go up as fast as the prices of things people buy. In simple terms, we should not take away inflation from the yearly income we get from our investments. Instead, we might need to also include the profits made when we

sell the investment. Real things like houses, land, and other physical possessions are more important than just numbers on paper. They make up most of the things that people own, sometimes as much as 90%.

These different impacts usually even out in the end. In simple terms, when we compare the prices of all things people own from 1910 to 2010, we see that their average cost went up at a similar rate as the cost of living, at least as a rough estimate. Certainly, there could be big profits or losses for a specific type of investments, and these can change a lot over time. For example, the price of investments went down a lot between 1910 and 1950, but then went up between 1950 and 2010. In these situations, the best thing to do is to consider the average returns on investments. I found these by dividing the yearly income from investments by the total amount of investments. This estimate doesn't include any money gained or lost from investments. It's a good estimate of how much money investments make over a long time. But when looking at one specific investment, we should still consider any money gained or lost from it. "But it wouldn't really make sense to subtract inflation from the profits of all types of money without also adding the gains made, which usually make up for the effects of inflation [3], [4].

Don't get me wrong: I'm not denying that inflation can affect wealth, how much money you make from your wealth, and how wealth is shared out. The result is mostly about moving money around different types of assets, rather than creating a lasting change in how things are organized. For instance, I previously explained that inflation caused the value of public debt to almost disappear in the rich countries after the two world wars. However, when prices keep going up for a long time, people will invest in things like real estate or commodities to keep their money safe. Big fortunes that are well spread out and connected to different things tend to do better over time. Smaller fortunes, like money in a checking or savings account, are usually hurt the most by inflation.

Certainly, some may say that going from almost no inflation in the 1800s to a 2% inflation in the late 1900s and early 2000s made it a little harder for people to make money from their investments. Back then, it was easier to make money from investments, but now investors have to spend more time managing their money to make sure they get the best returns. However, we can't be sure that the richest people are the most affected by inflation. Also, using inflation to lessen the impact of wealth gained in the past may not be the best way to achieve that goal. At this point, I want to point out that inflation mainly helps to move money from some people to others. Sometimes this is good, but other times it's not. Inflation doesn't have a big impact on the average profit from investments, it's actually much smaller than it seems.I studied how the money you invest has changed over time using the most accurate historical information available. Now I will try to describe the differences we saw. How do we figure out how much money people make from their investments in a society at a certain time. What causes these changes and how can we predict what will happen with investments in the future[5], [6].

Based on the basic economic models, if capital and labor markets are very competitive, the money made from investing in capital should be the same as the extra money made from using more capital. In more advanced models that are more true to real life, the amount of money you make from investing also depends on who has more influence in the situation. Depending on the circumstances, it may be more or less than the amount of money earned from using capital. In every situation, the amount of money you make from investing is decided by two things: the technology you use and how much money you invest.

Technology is very important. If money doesn't help in making things, then it doesn't add any extra value. In an imagined society, money and machines don't make things better. Farmland doesn't produce more with better tools or machines. Having a house doesn't make people happier than sleeping outside. However, money could still be important in such a society just as a way to keep and save things. For example, people might collect lots of food in case there's a famine in the future or just because they like how it looks. In theory, we can imagine a society where people have a lot of money but don't make any more money from it. In that situation, the part of money made from investments in the country's income, Ŭ, would be zero. In this kind of society, all the money made in the country would go to the workers.

We can think about a society where things are different, but in all human societies that we know about, things have always been arranged in a different way. In every society, money does two things: it helps people have a place to live, and it helps make things that people need and want. In the past, people gathered tools, improved land, and built basic homes to save money.The idea of how much extra stuff we get from using more money to create things.

Simply put, the marginal productivity of capital means how much more stuff can be made with one more piece of capital. For example, in a farming community, if someone gets 100 euros worth of land or tools, they can grow 5 euros worth of extra food each year. The marginal productivity of capital is 5 euros for every 100 euros invested, which is equivalent to 5 percent per year. In a situation where competition is fair and perfect, this is the yearly amount of money the owner of the farm should make from the worker. If the owner wants to get more than 5 percent, the worker will borrow land and tools from someone else who has money. If the worker doesn't want to pay at least 5 percent, someone else will get the land and tools. Sometimes, a landlord has a lot of control over renting land and tools or hiring workers. In these cases, the landlord can charge more money for using their things than what they actually produce.

In a more complicated economy, where people use money for many different things like farming, housing, or businesses, it can be hard to figure out how much profit you can make from investing 100 euros. In simple terms, the system of financial intermediation's job is to find the best ways to use money, so that it is invested where it can make the most profit for the investor. A perfect capital market is one where money is invested in the best way to make the most profit and where risk is spread out to lower costs and earn a safe return. In reality, banks and stock markets are far from being perfect. They can cause long-term problems, lots of guessing about what will happen, and sudden increases in value. It's not easy to find the best way to use money around the world or even in one country. Furthermore, sometimes companies focus on short-term profits and use tricky accounting methods to make the most money in a short amount of time. Despite any flaws in institutions, it is obvious that financial systems have been very important in the development of the economy. In the past, many different people were involved in the process, not just banks and financial markets. Notaries, like PèreGoriot and César Birotteau, also helped bring investors and entrepreneurs together to get money for their businesses. It's important to make it clear that the concept of marginal productivity of capital is defined without considering the rules or lack of rules that decide how capital and labor are divided in a society. For instance, if a person who owns land and tools uses their own money for their business, they may not keep track of how much profit they make from that money. However, this money is still helpful, and its value is the same as if it were given to someone else. The same goes if the economic system decides to bring together all or some of the capital stock, and in very serious situations, get rid of all private profit on capital. In that situation, the profit for individuals is less than the overall benefit on

money invested, but the overall benefit is still defined as the extra productive value of more money invested. Is it fair for people who own property to get paid for it even if they don't do any work. This is an important question, but it's not the one I'm asking here.[7], [8]

Having too much money can make it harder to earn a good return on the money you have.

Having too much money invested can make the profits from investing less. When there's a lot of money invested, the amount of profit made from each dollar invested goes down. For instance, if each farmer already has a lot of land to farm, they might not be able to produce much more from an extra piece of land. Likewise, if a country has already made a lot of new homes, and every person has lots of space to live, then the benefit of building one more home would be very small. The more machinery and equipment you have, the less each additional one helps in producing goods. On the other hand, in a country with a lot of people and not a lot of land, housing, or tools, the benefit of having more tools or land will be very high. And the people who have these things will use them to their advantage. The important question is not if the productivity of capital goes down when there's more capital, but how quickly it goes down. The main question is how capital's return changes when the capital/income ratio goes up. There are two possible situations. If the amount of money earned from investments drops by a lot when the ratio of money invested to income increases, then the portion of money earned from investments in the country's total income also decreases when the ratio increases. Simply put, the decrease in the amount of money made from investments is greater than the increase in the ratio of the amount of money invested to the amount of money made. On the other hand, if the return falls less when beta increases, then capital's share increases when beta increases.

Based on the historical changes seen in Britain and France, it seems that the second situation is more important in the long term. The amount of income from capital, called Ŭ, follows the same U-shaped curve as the ratio of capital income, called β. The rate of return on capital, r, is changing and it is making the U-curve smaller. After World War II, when there wasn't a lot of capital available, the return on capital was very high. This is because the more capital there is, the less productive each additional unit becomes. However, this change did not have a big enough impact to reverse the U-shaped curve of the relationship between capital and income, called beta (β), and turn it into an inverted U-shaped curve for the share of capital, called Ŭ.

However, it is still important to say that both situations could happen. Everything relies on the different types of technology that we have to make things and provide services that people want to buy. Economists use a "production function" as a math formula to show what a society can make with their technology. A production function shows how easily capital and labor can be switched to make goods and services. For instance, if the numbers used in the production formula are not able to change, then the flexibility of swapping is zero: it needs exactly one hectare and one tool for each farm worker, not more and not less. If a worker has just a tiny bit too much land or too many tools, then the extra tools won't help them do their job any better. Also, if there are too many workers for the amount of money available, then the extra worker cannot be used to do any productive work.

On the other hand, if substitution is very easy, the extra output from using more capital doesn't change with how much capital and labor there is. In simple words, the profit made from investments is always the same and doesn't change based on how much money is invested. It's always possible to save more money and make more things by adding a certain percentage of money each year. For example, adding 5 or 10 percent more money each year. Imagine a world where everything is done by robots and you can make more stuff just by adding more money.

Neither of these extreme cases is important. The first one is not creative enough, and the second one is too optimistic about technology. The important question is whether it's easier or harder to replace workers with machines. If the elasticity is between zero and one, then if the capital to income ratio increases, the productivity of capital goes down, and the share of capital in income decreases. If the elasticity is more than one, then an increase in the capital to income ratio leads to an increase in the share of capital in income. If the elasticity is exactly one, then the effects cancel out and the share of capital in income does not change.

DISCUSSION

The elasticity of substitution is a measure of how easily one input can replace another in production. When the elasticity is exactly equal to one, it is called the Cobb-Douglas production function, named after economists Charles Cobb and Paul Douglas, who came up with it in 1928. A Cobb-Douglas production function always gives the same capital share of income, no matter how much capital and labor are used. This share is always equal to a fixed number, called the coefficient, which is a technological factor. For instance, if Ŭ is 30 percent, then no matter how much money people have, 30 percent of the country's income will come from investments. If people are saving a lot and the economy is growing quickly, then the amount of money saved will be equal to six years' worth of income. This means that the return on investments will be 5 percent, and capital will make up 30 percent of the income. "If the country's wealth is only worth three years' worth of national income, then the profit made from investing in that wealth will go up to 10 percent. If people save and earn money at a certain rate, and the total amount of money saved is equal to ten years of income, then the profit made from the money will decrease to 3 percent. In every situation, 30 percent of the income will come from investments[9], [10].

The Cobb-Douglas production function was widely used in economics after World War II because it was easy to understand and it showed a balanced relationship between capital and labor, making the social order seem stable and peaceful. Actually, if capital's share of income stays the same, it doesn't mean things will be fair. It could still lead to very unfair ownership of capital and how income is distributed. "Even though people think that the amount of money businesses make stays the same, it doesn't always mean that the ratio of money to income stays the same. In fact, the amount of money businesses own can be very different in different places and times, leading to big differences in who owns the money. "

The main thing I want to highlight is that history is not as simple as just dividing everything into capital and labor. The Cobb-Douglas theory is a pretty good guess for certain times or parts of an economy. It's also a good starting point for more thinking about this topic. However, this idea does not fully explain the variety of historical patterns we see over different time periods, as the information I have gathered demonstrates. Also, it's not surprising because economists didn't have much historical data when Cobb and Douglas first came up with their idea. In 1928, two American economists wrote an article using information from US factories between 1899 and 1922. They found that profits stayed about the same during this time. Another economist, Arthur Bowley, also talked about how the money from work and the money from investments stayed pretty consistent from 1880 to 1913. Clearly, the authors only looked at short periods of time and didn't compare their findings to estimates from the early 1800s.

As we saw, these questions caused a lot of political arguments in the late 1800s and early 1900s, as well as during the Cold War. This made it hard to think about the facts calmly. Both conservative and liberal economists wanted to prove that economic growth helps everyone and were very committed to the idea that the division of money between capital and

labor was fair, even if it meant ignoring some data or periods that showed more money going to capital. Similarly, Marxist economists wanted to prove that the amount of money that capital gets is always getting bigger while wages stay the same, even if they had to manipulate the data to prove it. In 1899, Eduard Bernstein said that workers were making more money and should work with the government. But most people at the meeting didn't agree with him. In 1937, a young historian and economist named Jürgen Kuczynski, who later became a famous professor at Humboldt University in East Berlin, criticized Bowley and other rich economists. He also later wrote a big thirty-eight-volume history book about wages. Kuczynski said that the amount of money workers get compared to the total money made in a country had gone down steadily from when factories started until the 1930s. This was true for the first half, and even the first two-thirds, of the 1800s, but it was wrong for the whole time. In the following years, there was a lot of disagreement in academic magazines. In 1939, in a publication called Economic History Review, Frederick Brown strongly supported Bowley, who he thought was a great scholar and serious statistician, while criticizing Kuczynski as a manipulator, which he believed was not accurate. In 1939, Keynes sided with the rich economists and said that the division of money and work is very stable. But he made this claim too quickly because he only had data from British manufacturing in the 1920s, which wasn't enough to prove that this is always true [11], [12].

In texts from 1950 to 1970, it is widely accepted that there is a division between capital and labor. However, it is not always clear which time period this idea applies to. Most writers are happy to only use information from 1950 onwards and not compare it to the time before that. Since the 1990s, many studies have said that in rich countries, more of the country's money goes to profits and capital instead of wages and labor. This started happening after 1970. The idea that the economy is always stable was questioned, and in the 2000s, reports from the Organisation for Economic Cooperation and Development and International Monetary Fund recognized this.

This study is the first to look at the capital-labor split and the increase of capital's share of national income in a broader historical context. It focuses on the changes in the capital/income ratio from the 18th century to now. The exercise does have its limits because the historical sources are not perfect. But I think it helps us understand the main issues better and gives us a different perspective on the question. Using less workers and more machines in the 21st century: a high ability to replace workers with machines.

I start by looking at why the Cobb-Douglas model is not good for studying changes over a long time. Over a long time, it looks like when the amount of money and the amount of work change, the amount of money going to capital and the amount going to labor also change a little bit. Simply put, this means that there are many ways to use money over a long period of time. Yes, throughout history we have seen that there are always new and helpful things we can do with money, such as building better houses, creating more advanced robots and electronic devices, and developing new medical technologies that require a lot of money to invest in. You don't have to think about a future where robots do all the work to see how money can be used in different ways in a modern economy where different things can be used instead of each other. In ancient farming communities, the number of farmers was less than the amount of food they produced.

I just learned that in modern economies, there are lots of chances to use machines instead of people for work. In traditional farming economies, most of the capital was in the form of land, which is different from how things are now. The information from history shows that in the old days, the ability to switch between different resources was much lower than one in farming communities. This is the only way to explain why land in the United States was

worth less than in Europe, even though there was more land available in the US during the 1800s. This makes sense because if money is going to be used instead of people working, it needs to come in different types. For any type of money or investment, it's likely that eventually the price changes will have a bigger impact than the amount of money invested. If a small group of people has a whole continent to use, then the cost of land and rent will drop to almost nothing. There is no better example of the saying "Having too much money makes it hard to make more money" than comparing the value of land and the rent you can charge for it in the New World and the Old.

It's time to ask a very important question: Has human capital really become more important throughout history, or is it just a trick. Let me ask the question in a clearer way. A lot of people think that as countries grow and their economies get bigger, having skilled workers who know what they're doing becomes more and more important in making things. Although it may not be stated directly, one way to understand this idea is that technology has changed and now workers are more important. Over a long time, the amount of money workers get has gone up and the amount that goes to investors has gone down. Labor got more money, because labor became more necessary in making things. Therefore, the increasing knowledge and skills of people made it possible to reduce the amount of money going to land, buildings, and financial investments.

If this explanation is right, then the change it suggests was really important. But be careful. At this time, we don't have enough information to make a good decision about how much money capital will make in the future. It's likely that the amount of money that businesses have will increase in the next few decades, reaching the same level it was at in the early 1800s.

This could happen even if the way technology is set up and how important money and workers are does not change, or if technology only changes a little bit. However, the amount of money compared to the amount of income could still go up, which would mean that the money earned from investments would be higher than it has been in the past because the ability for businesses to replace workers with machines seems to be more than one. This study shows that modern technology still costs a lot of money to develop and use. It's important to know that because money can be used in many different ways, people can accumulate a lot of it without losing its value. In these situations, capital's portion may not reduce in the very long term, even if technology becomes more favorable for workers.

Another reason to be careful is this. I believe it's likely that in the future, the amount of money that goes to capital (like factories and machines) will go down from 35-40% to 25-30%. This is important, but it won't change our whole way of life. Certainly, people have become much more skilled over the last 200 years. However, the amount of money invested in factories, banks, and property has also grown a lot. Some people believe that money and family business are not as important as they used to be. They think that now, talent and skills are more important in our society.

Wealthy shareholders who don't do much have been replaced by skilled managers because of new technology. I will answer this question in Part Three when I talk about how some people have more money and possessions than others. It's impossible to give a right answer right now. However, I want to caution against being overly optimistic. Capital hasn't gone away because it is still very useful, just like it was in the past, and it might continue to be useful in the future. As I finish studying how capital and income have changed over time, it's important to note how my ideas connect to Karl Marx's ideas. Marx believed that the rich people would cause their own downfall by trying to make more and more money. This would lead to less

profit and eventually their own failure. Marx didn't use math and sometimes his writing was hard to understand, so it's not always clear what he was thinking. One way to understand his idea is to look at the dynamic law $\beta = s/g$ when the growth rate g is zero or very low.

Remember that g measures the overall growth rate of a country's economy, which is the combination of how much more productive the country is and how much the population is growing. Marx and other economists before Solow didn't clearly understand the concept of long-lasting growth in productivity. Back then, people thought that the reason production and manufacturing was growing was mostly because of the increase in industrial capital. Simply put, the increase in output was only because each worker had more machinery and equipment, not because they were more productive. Today we understand that long-term growth comes from being more productive. But at the time of Marx, people did not see this clearly because they didn't have enough knowledge of history and reliable information.

When there is no increase in buildings, and the rate of people getting things done and the rate of new people being born is zero, we come across a problem that is very similar to what Marx wrote about. If people save money, the amount of capital will keep increasing every year. In general, if g is very small, the long-term capital/income ratio $\beta = s/g$ gets closer to being infinity. If the symbol β is very big, then the rate of return on investment r will decrease and become very close to zero, or else the share of income from investments, represented by $Ŭ = r \times \beta$, will end up taking all of the national income. The problem that Marx talked about is a real problem, and the only way to fix it is by making the economy grow. This is the only way to balance the process of gathering capital. Only continuous increase in how much we can make and how many people there are can make up for continually adding new capital, as the formula $\beta = s / g$ shows. If capitalists don't change their ways, they could end up causing their own downfall. They might end up fighting each other to make money, or they might make workers earn less and less, which could lead to a rebellion by the workers and losing their property. In any situation, money is weakened by its own conflicting problems.

Marx had a model in mind that is confirmed by his use of industrial firms with high capital intensities. In his first book, Capital volume 1, he talks about the costs of a textile factory, which he got from the owner. It looks like the factory spends a lot more on equipment and materials than the value of the things they make in a year. This level of capital/income ratio is really scary. If the company earns 5 percent on its investments, then more than half of its earnings come from profits. Marx and many other worried people at the time wanted to know where all this new industrial development would lead in the long run and what kind of society it would create. Marx read a lot of British government reports from 1820 to 1860. He used these reports to write about the suffering of workers who didn't make much money, accidents on the job, really bad health conditions, and how the owners of big businesses were really greedy. He also looked at numbers from taxes on different types of money earned, which showed that profits from industry grew very fast in Britain in the 1840s. Marx tried to use probate statistics to show that the richest British people had gotten much richer since the Napoleonic wars.

The issue is that even though Marx had some good ideas, he didn't always use statistics in a clear and organized way. He didn't check if the very expensive equipment he saw in some factories was typical for all British businesses or just a few. He could have done this by looking at a few similar accounts. It is surprising that he did not talk about the many attempts to figure out how much money and assets Britain has. These attempts have been going on since the 1700s and continued into the 1800s by people like Patrick Colqhoun and Giffen. Marx didn't notice the development of national accounting that was happening around him.

It's too bad because it would have helped him confirm his ideas about the large accumulation of private money during that time and explain his theory better.

Beyond the "Two Cambridges" there is more.

It's important to know that in the late 1800s and early 1900s, the national accounts and other data available were not good enough to understand how capital and income were changing. Specifically, there were a lot more guesses about how much money a country has than about how much it earns or produces. In the middle of the 1900s, after the big events of 1914-1945, things were the opposite. This helps to understand why people argued about and were confused about saving money and finding a balance for a long time. A famous example is the "Cambridge capital controversy" from the 1950s and 1960s.

Let's remember the main points of this discussion: In the late 1930s, economists Roy Harrod and EvseyDomar introduced the formula $\beta = s / g$. It was common to flip it and write $g = s / \beta$. In 1939, Harrod said that the growth rate is decided by how much people save, because the technology stays the same. If people save 10% of their money and technology makes it so that the amount of money people have in relation to their income is 5, then the economy's ability to make things goes up by 2% every year. However, because the rate of growth must match the rate of population growth, it means that growth is a very delicate process. There is always either too much or too little capital, which leads to either excess capacity and risky investments or unemployment, or maybe both at the same time, depending on the industry and the year.

Harrod had a good feeling, and he was writing during a time when the economy was really messed up, which was an obvious sign of big economic problems. Yes, the process he talked about helps to explain why growth is often very unstable. It's hard to make sure that the amount of money people save matches the amount of money being invested in the country because different people make those decisions for different reasons. This makes the whole process very complicated and chaotic, especially because it's difficult to change how businesses are set up and how much they produce in the short term. However, the relationship between capital and income can change over time. Historical data shows that this relationship has varied a lot, and it seems that capital has been able to replace labor more easily over a long time.

Domar made a more positive and adaptable version of the $g = s / \beta$ law in 1948 than Harrod's. Domar said that the amount of money people save and the ratio of savings to income can kind of change to match each other. Solow made an important discovery in 1956. He found a way to write a formula that shows how two factors can be substituted for each other in production. This made it possible to write another formula that shows the relationship between savings and economic growth. Over time, the amount of money people save and how much the economy grows will determine the amount of capital and income, rather than the other way around. Disagreements continued in the 1950s and 1960s between economists in Massachusetts and England. They were debating Solow's model and whether it said that growth is always perfectly balanced, which goes against what Keynes said about short-term changes. Solow's neoclassical growth model became very popular in the 1970s.

If you look back at the arguments in this dispute, it's clear that the debate made economic thinking more confusing instead of clearer. It often focused on postcolonial issues. The British had no good reason to be suspicious. Solow and Samuelson believed that economic growth is unpredictable in the short term and that stabilizing the economy requires using government policies suggested by Keynes. They also thought that the equation $\beta = s / g$ only applies to the long term. But, some American economists, who were born in Europe,

sometimes made the "balanced growth path" they found seem more important than it really is. The law β = s /g shows a growth path where things like capital stock, income, and output all grow at the same speed in the long run. However, even though balanced growth may not cause short-term ups and downs, it does not make sure that wealth is spread evenly and doesn't mean that inequality in owning things will go away or get smaller. In addition, despite what many people used to think, the β = s /g law does not stop capital/income ratios from changing a lot between countries and over time. On the contrary. In my opinion, the strong emotions and sometimes lack of progress in the Cambridge capital controversy happened because people on both sides didn't have enough historical information to understand the debate. It's surprising that both sides didn't use capital estimates from before World War I. They may have thought they didn't match the 1950s and 1960s. The two world wars made it very difficult to study the issue from a long-term perspective, especially from a European point of view, because they caused big changes in the way people thought and the way statistics were collected and analyzed.

CONCLUSION

Studying how machines are taking over people's jobs in the 21st century shows how technology is changing the way we work and the economy. This abstract talks about how automation, artificial intelligence, and digital technologies are changing the way people work and how businesses operate. It explores how these new innovations are changing the relationship between workers and companies. Advancements in technology have brought us to a new time where machines are replacing human workers, and this is not just a theory, it is really happening. As businesses use more expensive technology, they become more efficient and productive, which also leads to big changes in the economy and society. The summary has shown the many ways this phenomenon affects things, like how money is spread out and the kinds of jobs available, and what skills people need for work. Substituting capital for labor makes businesses run better, but it also causes problems like people losing their jobs and unequal treatment in society. The summary has stressed how important it is to tackle these problems by making smart policies, like education and training programs that help people adapt to changes in the job market.

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CHAPTER 13

CAPITAL'S COMEBACK IN A LOW-GROWTH REGIME

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ABSTRACT:

The resurgence of capital in the context of a low-growth regime, analyzing the intricate economic dynamics, policy challenges, and potential trajectories associated with the heightened role of capital in driving economic outcomes. The analysis navigates through the factors contributing to capital's resurgence, including global economic trends, technological shifts, and policy responses to sustained low growth. In the backdrop of a low-growth environment, characterized by sluggish economic expansion and subdued productivity gains, capital has emerged as a central player in shaping economic trajectories. This abstract investigates how factors such as low interest rates, financialization, and technological innovations contribute to the prominence of capital in driving economic growth and influencing investment patterns. The economic dynamics explored in this abstract encompass the implications of capital's resurgence on income distribution, wealth inequality, and the overall well-being of societies. It examines how the concentration of economic gains in capital-intensive sectors may impact labor markets, social mobility, and the broader socioeconomic fabric in the face of persistent low growth.

KEYWORDS:

Low-Growth Regime, Policy Challenges, Policy Considerations, Prolonged Low Growth, Resurgence Capital.

INTRODUCTION

The truth is that we only recently got the data and enough time has passed to properly understand the long-term patterns of how wealth is distributed between capital and labor. The information I gathered and the fact that we are far away in time from the events.

Returning to a time when there was very little economic growth and not many new people being born, means that money and property become more important again. In societies where there is not much economic growth, a lot of money gets saved up over time. This is shown by the formula $\beta = s / g$. This means that in societies where things don't change much, the money that was saved in the past becomes very important. Today in Europe, the amount of money and property people have compared to their income has gone up to about five to six years of what the whole country makes. It's almost as high as it was in the 18th and 19th centuries and just before World War I.

On a worldwide scale, it is very likely that the amount of money people own compared to what they earn will reach or exceed this level in the 21st century. If people save 10% of their money and the economy grows at 1. 5% each year, then in the future there will be six or seven times more money saved compared to the annual income. If the economy grows by only 1 percent, the value of all the things that make money in the country could be worth as much as ten years of what the country makes in a year[1], [2].

In terms of the amount of money compared to the total income in a country and worldwide, the formula $\check{U} = r \times \beta$ shows that increasing the ratio of capital to income may not necessarily cause a big decrease in the profit made from that money. Capital can be used in many ways for a very long time. This can be seen by the fact that the amount of capital used instead of labor in the long term is likely to be more than one. So, it is expected that the rate of return will decrease by a smaller amount than the increase in the amount of money or income, causing the share of money to increase. If people have saved seven to eight years' worth of money and their investments make 4-5 percent profit, then capital might make up about 30-40 percent of the world's income, which is similar to the levels seen in the 1700s and 1800s, and it could even go higher[3], [4].

It is also possible that as time goes on, technology changes might make human work more important than machines. This could mean that the money earned from using machines may decrease. The lasting impact may not be very big. Other things like better financial systems and competition for money may balance it out. The unpredictable behavior of technology

The main thing to take away from the second part is that there is no natural force that always makes capital and the income from owning capital less important over time. After World War II, people started to believe that human skills and knowledge were more important than money and assets. They thought this change was a normal and permanent thing, maybe because of new technology and economic changes. But some people were already saying that political forces were very important. My results completely support this idea. Advancing in economy and technology doesn't always mean advancing in democracy and meritocracy. One main reason for this is that technology, just like the market, doesn't have any limits or morals. The advancement of technology has made it more important for people to have skills and be competent. However, this has also created a greater demand for buildings, houses, offices, and equipment, as well as patents and other resources. As a result, the overall value of these types of nonhuman capital has increased almost as quickly as total income from work. If you want to create a fair and sensible society, just relying on technology is not enough[5], [6].

In conclusion, modern growth, which comes from being more productive and sharing knowledge, has stopped the terrible event Marx thought would happen and has made it possible to keep a balance in the process of collecting wealth. But it hasn't changed the basic way capital works or decreased the overall importance of capital compared to labor in the economy. Now I have to see if income and wealth are distributed unfairly. How has inequality in work and money changed since the 1800s?

Inequality and Concentration: Preliminary Bearings

In the second part, I looked at how much money and resources are owned by a country and the overall split of income between money and work, but I didn't directly study how uneven money and resources are between individuals. I studied how the events from 1914 to 1945 affected the ratio of capital to income and how it changed the way capital and labor were divided in the 20th century. Europe and the rest of the world have recently recovered from these problems. This has made people think that the kind of capitalism we have now is new, but it is actually similar to what we had in the past, especially during times with low economic growth like in the 1800s.

I am starting to study how people are treated differently and how things are shared among individuals. In the next few seconds, I will explain how the two world wars and the new government rules that came after them helped to make everyone more equal in the 1900s. This process was not natural or spontaneous, which is different from what Kuznets's theory predicted. I will also prove that the gap between rich and poor people started to get much

bigger again in the 1970s and 1980s. This happened differently in different countries, which shows that their rules and politics had a big effect. I will study how the importance of money passed down from family compared to money earned from work has changed over a long time, looking at history and theories. Many people think that nowadays, skills and hard work are more important than being born into a wealthy family. Where does this belief come from, and can we be sure it's true. I will think about how the world's wealth might change in the next few decades. Will the 21st century be more unequal than the 19th century. How is inequality different today compared to the Industrial Revolution and traditional rural societies. Part Two has some ideas, but we need to analyze individual inequality to answer this important question.

Before we go any further, I need to first explain some important concepts and sizes. I want to start by saying that in every society, differences in income can be broken down into three parts: differences in how much people earn from their jobs, differences in who owns property and the income it brings, and how these two things affect each other. Vautrin taught Rastignac an important lesson in Balzac's PèreGoriot, which is a clear introduction to important issues.

Vautrin's Lesson

Balzac's PèreGoriot, which came out in 1835, is very easy to understand. PèreGoriot used to make spaghetti, but he became rich selling pasta and grain during the Revolution and Napoleonic era. A man who has lost his wife, he gives up everything he has to find husbands for his daughters Delphine and Anastasie within the top social circles of 1810s Paris. He saves money to pay for his room and food in a run-down boardinghouse, where he meets a poor young noble named Eugène de Rastignac. Eugène has come from the countryside to study law in Paris. Eugène has big dreams and feels embarrassed about being poor. He gets help from a distant relative to get into fancy parties where rich and important people from the past hang out. He falls in love with Delphine, who was left by her husband, Baron de Nucingen, a banker who has already spent his wife's money on risky business deals. Rastignac quickly realizes the truth about society and how it is influenced by greed and corruption. He is shocked to find out that PèreGoriot has been left alone by his daughters. They care more about being popular in society and have hardly spent time with him since they used his money. The old man dies in terrible poverty and loneliness. Only Rastignac goes to his funeral. But as soon as he leaves the Père Lachaise cemetery, he sees all the expensive things in Paris along the Seine and decides to conquer the city. He talks to the city, saying "It's just you and me now. " He has finished learning about emotions and how to interact with others. From now on, he will also be cruel. The most intense moment in the story happens in the middle when a character named Vautrin gives Rastignac some advice. Vautrin is a smooth talker who hides a criminal past. He lives in the same run-down place as Rastignac and Goriot. This moment is like when Edmond Dantès in Le Comte de Monte-Cristo or Jean Valjean in Les Misérables face their tough choices. Unlike those two characters who are mostly good, Vautrin is very bad and doesn't trust people. He tries to convince Rastignac to commit a murder so that he can inherit a lot of money. Before that, Vautrin tells Rastignac a really scary and detailed story about what could happen to a young man in French society at that time.

Basically, Vautrin tells Rastignac that it's not realistic to believe that you can become successful in society just by studying, being talented, and working hard. He describes different jobs in law or medicine that his friend could have if he studies hard, because skill is more important than being rich in those fields. Vautrin clearly tells Rastignac how much money he can make each year in different jobs. The decision is clear: even if he does really

well in school and has a successful career in law, he won't make a lot of money and won't become very rich. By the time you're thirty, you will be a judge earning 1,200 francs a year, if you haven't quit your job. When you turn forty, you will marry a girl whose father works at a mill and she will have around 6,000 livres. Thank you a lot. If you find someone to support you, you could become a royal prosecutor at thirty and earn a lot of money. You could also marry the mayor's daughter. "If you're okay with doing some sneaky political work, you could become a prosecutor-general by the time you're forty. But there are only a few of those positions available. "

In France, there are twenty top prosecutors, and 20,000 people want to be in that position. Some of those people are not very serious and would do anything to get the job. If you don't like this job, think about doing something else. Does Baron de Rastignac want to become a lawyer? If so, he will have to endure ten years of hard times, spend a lot of money each month, build a library and an office, socialize with others, flatter a clerk to get jobs, and work very hard. If the job could lead to success, I wouldn't tell you not to do it. Can you tell me the names of five lawyers in Paris who make more than 50,000 francs each year when they are fifty years old?

Vautrin's talk is scary because he describes the Restoration society in a very detailed and accurate way. I will soon explain that in 19th-century France, rich people could live much better than those who only earned money from working. Why should we work and why should we act morally when there is social inequality that is unfair and unjust. Why not just be immoral and take money by any means possible. In nineteenth-century France and beyond, working and studying alone were not enough to achieve the same comfortable life as those who inherited wealth. Everyone could see that Balzac didn't need facts or details to prove it. The conditions were alike in eighteenth and nineteenth century Britain. Jane Austen's heroes didn't have to worry about working. The most important thing to them was how much money they had, whether they got it from their family or from getting married. Yes, this was true in many places before World War I, which was when the old societies ended. One of the only times when this rule didn't apply was in the United States, particularly in the northern and western states. In those places, family money didn't have much effect in the 1700s and 1800s, but that changed after a while. In the southern states, where many people owned slaves and land, family money was very important, just like it was in old Europe. In Gone with the Wind, Scarlett O'Hara's potential boyfriends can't rely on their education or skills to guarantee their future success, just like Rastignac. The most important thing is the size of their father's land. Vautrin doesn't care about being a good person or treating others fairly. He tells young Eugène that he would be happy to live as a wealthy slave owner in the US South, getting rich from the work of his slaves. The America that the French ex-convict likes is not the same as the America that Tocqueville liked.

Certainly, not everyone earns the same from their work, and it would not be right to only focus on who earns money from working versus who inherits money when we talk about fairness in society. However, modern democracy is based on the idea that it is fair for people to have different levels of success based on their own abilities and hard work, rather than other reasons. And we want to make sure we are heading in that direction. Certainly, Vautrin's teachings were not as relevant in 20th-century Europe, at least for a while. In the years after World War II, having a lot of money from your family was not as important. For the first time ever, working hard and going to school were the best ways to become successful. Today, despite seeing many unfair differences and losing faith in social and democratic progress, most people still think that the world has changed a lot since Vautrin talked to Rastignac. Who would tell a young law student to quit school and follow an ex-

convict's way of improving their social status? In some rare cases, it might be a good idea to aim for inheriting a lot of money, but for most people, it's better to study, work hard, and be successful in their career.

DISCUSSION

To answer these questions, I need to first explain some simple ideas and the main differences in how much money and possessions people have in different places and times. In Part One, I explained that income can be calculated by adding together the money earned from working and the money earned from investments. Wages are money you earn from working, and sometimes I will talk about wage inequality when I mean inequality in how much money people earn from working. Certainly, money earned from work also includes money earned from activities that are not paid by the hour, which has been important for a long time and still is today. Money from owning things like stocks and property can come in different ways. This includes all the money you make from owning things, without having to work for it, no matter what the rules say. In every society, income inequality happens because some people make more money from their jobs and investments than others. The more unevenly the two parts are divided, the bigger the overall unfairness. In the abstract, we can imagine a society where some people have a lot of power at work and others have very little, or where some people have a lot of money and others have very little, or a society where both of these things are very unequal or very equal[7], [8].

The third important factor is how much people with a lot of money from working also have a lot of money from investments. This is called a statistical correlation. The more these two things are related, the more unequal the total income is, without considering other factors. In real life, the connection being discussed is often weak or opposite in places where there is a big gap between rich and poor, and the rich people who own a lot of money don't have to work. What is the current situation, and what will it be like in the future. Also, keep in mind that the difference in income from investments could be bigger than the difference in the actual amount of investments. This happens when people with a lot of money make more money from their investments than those with less money. This thing can make inequality worse, and this is really true in the new century. In a basic situation where everyone's rate of return is equal, the two inequalities will be the same.

When looking at the unfair way money is shared, it's important to carefully separate the different parts of inequality. This is important for moral reasons, but also because the reasons for the changes we see in how money is shared are very different. When people earn different amounts of money from their jobs, it's because of things like the kinds of skills they have, how much people need those skills, how good the education system is, and the laws and organizations that affect how the job market works and how much people get paid. When people have different amounts of money from investments, the most important things that affect it are how much they save and invest, the rules about giving gifts and inheriting money, and how the real estate and financial markets work. The numbers economists and people talk about when discussing income inequality are often not very accurate. They mix together different things like inequality between workers and business owners, so it's hard to understand exactly what is causing the inequality. On the other hand, I will try to clearly separate these things.Capital is always distributed in a way that gives more to some people and less to others, compared to how labor is distributed[9], [10].

When we look at how income is shared, we notice that people who have money invested make more than people who work for a living. Ownership of wealth is more concentrated than the money people earn from working. We need to clear up two things right away. First,

we see this pattern in all countries in all time periods where information is available, without any exceptions, and the size of the phenomenon is always very noticeable. To help understand the size of the problem, the richest 10% of people usually earn 25-30% of all the money earned from working, and the wealthiest 10% always own more than half of all the money and assets. Furthermore, the lower 50% of the people who earn wages always get a big part of the total income from work. But the lower 50% of people who have wealth don't own anything or almost nothing. Differences in how people are treated at work usually seem fair, not too bad, and almost sensible. Inequalities in terms of money are always very big. Secondly, this pattern is not guaranteed, and it shows us something important about how the economy and society work to build up money and spread out wealth. Certainly, there are ways to make it so that wealth is more evenly distributed than the money people earn from working. For instance, imagine that at one time, people's earnings show differences in wages that last a long time, and also sudden changes. Wages would be very different in the beginning, but would become more equal over time. It would be better to study the real differences in opportunities and status over a long time. Vautrin's lecture talks about these differences, but they are hard to measure.

In a world where wages go up and down a lot, people save money in case something bad happens. If this is the main reason for saving money, then the gap between rich and poor wouldn't be as big as the gap between high and low wages. For instance, the gap between rich and poor people's money could be about the same as the consistent gap between how much people earn from their jobs, and so it would be a lot less than the difference in wages at any specific moment. This could happen, but it's not important in the real world because wealth inequality is much bigger than income inequality. Saving money before any unexpected events does happen in real life, but it is not the main reason why people have a lot of money. We can also think of ways that would cause some people to have a lot more money than others, similar to how some people earn much more than others through work. In simple terms, if people save money throughout their lives to support themselves after they stop working, then everyone should save enough money that is related to how much they earn in order to keep living comfortably after they retire. In that situation, having unequal amounts of money would just be a result of having unequal incomes from work. This means that the most important inequality would be the difference in how much people earn from their jobs[11], [12].

Again, this machine could work in theory and it's important in older societies. In numbers, it's not the main thing happening. Saving throughout life cannot fully explain why a small number of people own a lot of capital, just like saving for emergencies cannot. Older people are usually wealthier than younger people. However, the wealth is actually concentrated almost as much within each age group as it is for the whole population. In simple terms, despite what many people think, fighting between different generations has not replaced fighting between different social classes. The big amount of money people have is mostly because they inherited a lot of money and property. For example, if you inherit an apartment, you don't have to pay rent, so it's easier to save money. The return on investment can vary a lot, and that's important in how things change over time. In the rest of Part Three, I will look at these different mechanisms more closely and see how their importance has changed over time and in different places. At this point, I just want to say that the big difference in wealth, compared to the difference in income from work, shows that certain ways of doing things are more likely than others.My main aim is to compare how inequality is set up in societies that are far apart in time and place, which are very different from each other, and especially in societies that use completely different words and ideas to talk about the different social groups within them. The ideas of deciles and centiles are a bit hard to understand and don't

have much beauty. Most people feel more connected to groups they know well, such as farmers or rich people, workers or bosses, office workers or high-level bosses, waiters or salespeople. However, deciles and centiles are great because they allow us to compare inequalities that would be hard to compare otherwise. They use a common language that should be understandable to everyone. If we need to, we will separate our groups into smaller parts, using centiles or even thousandths to measure social inequality more accurately. In every society, even the most fair, the richest 10% are very different from the rest of the people. Some people have a little more money than most, while others have a lot more. Firstly, it is helpful to divide the top 10% into two groups: the top 1% and the other 9%.

Inequalities in labor: A little bit of inequality

Let’s go back to talking about how big the differences are between rich and poor. How much do the differences in how much money people make from working matter now. It’s true that the differences in what people earn from working are always much smaller than the differences in how much money people have to invest. However, it would be a mistake to ignore them. This is because most of a country's income comes from people working. Also, different countries have different ways of sharing this income, so public policies and national differences can have a big impact on how much money people have and how they live.

In countries like Scandinavia from 1970 to 1990, the top 10% of people earn 20% of all the money from work, and the bottom 50% earn 35%. In many countries, like those in Europe, the first group of workers gets 25-30% of all the wages and the second group gets about 30%. In countries where there is a big gap between rich and poor, like the United States in the early 2010s, the richest 10 percent of people get 35 percent of the money, while the poorest half of people only get 25 percent. In simpler terms, the balance between the two groups has almost completely switched. In very fair countries, the bottom half of people get almost double the amount of money compared to the top 10 percent. But in very unfair countries, the bottom half of people get one-third less money than the top group. If wages keep going up for the rich and not the poor, by 2030 the lower 50 percent could make only half as much as the top 10 percent in the US. Clearly, we can't be sure if this change will keep happening. But it's clear that recent changes in how money is shared have not been easy. Put simply, if everyone earned the same amount, the top 10% would get 4,000 euros a month, the middle 40% would get 2,250 euros a month, and the bottom 50% would get 1,400 euros a month. But if there was a big difference in how much people earned, the top 10% would get 7,000 euros a month, the middle 40% would get 2,000 euros a month, and the bottom 50% would get just 1,000 euros a month. For the poorer people, the difference between the two income distributions is not small. If a person earns 1,400 euros a month instead of 1,000, it is a 40% increase in income. This means they will have more money for things like housing, vacations, and other expenses. In many countries, women make up a lot of the people who earn the least money. The differences between countries partly come from the gap in pay between men and women, which is smaller in northern Europe.

The difference between the two groups is also big for the people who earn the most. Someone who makes 7,000 euros a month instead of 4,000 will be able to buy more things and have more control over others. For example, they can hire people who earn less to help them. If things stay the same in the United States, by 2030 the richest 10 percent of people will be making 9,000 euros a month, the middle 40 percent will earn 1,750, and the poorest 50 percent will only make 800 a month. The richest 10 percent could use some of their money to hire lots of people from the poorest 50 percent as servants at home.

Obviously, the average wage can lead to different social and economic situations for different groups of people, even if they earn the same amount. Sometimes, these differences can cause fights. It is important to understand the factors that decide how much people get paid for their work in different places. This includes things like money, social issues, and politics. Even though people think that income inequality from work is not a big problem, it's actually because they are comparing it to the even bigger inequality in who owns capital. In societies where wealth is shared more equally, the richest 10 percent own about 50 to 60 percent of the country's money and assets. Right now, in the early 2010s, the wealthiest 10 percent of people own about 60 percent of all the money and valuable things in most European countries, like France, Germany, Britain, and Italy.

In all these places, half of the people have very little. The poorest 50% own less than 10% of the country's money, usually even less, around 5%. In France, the richest 10 percent of people have 62 percent of all the money, while the poorest 50 percent have only 4 percent. In the US, the latest survey by the Federal Reserve shows that the richest 10% of people have 72% of the country's money, while the poorest 50% have only 2%. However, keep in mind that this information may not show the true extent of the biggest fortunes. This is because wealthy individuals may not accurately report their wealth in surveys. Also, it's important to mention that we see the same amount of rich people in every age group. In the end, even the most equal countries have bigger differences in wealth than the countries with the most unequal wages. As far as I know, there has never been a society where ownership of money and resources is fair for everyone. I have made a suggestion of a fair distribution of wealth in section 7. 2, but it's just an example and not a rule. Of course, we don't know yet how to create a perfect society with little differences in wealth, if that's something we want.

It's important to understand what wealth inequalities really mean, just like understanding wage inequalities. Think about a place where the average person has 200,000 euros. This is how it is in the richest European countries now. This money can be split into two parts: real estate and financial and business assets. Of course, these numbers are typical, but they vary a lot between countries and even more between individual people. If half of the people with the least money own 5 percent of all the money, then on average each person in that group owns the same as 10 percent of the money of everyone in society. In the last example, it means that each person in the bottom 50 percent has an average of 20,000 euros in wealth. This isn't nothing, but it's much less than what most people have. In this kind of society, many of the poorest people, about a quarter of the population, will have very little or no money.

CONCLUSION

Studying how money is making a comeback in a slow economy shows that there is a big change happening in how the economy works. This will affect societies, people who make decisions about the economy, and the direction the economy is going. This summary has looked at the reasons for capital's return, including worldwide economic changes, advances in technology, and how governments are handling long periods of slow growth. In a time when the economy isn't growing much, money has become really important in affecting how things turn out. Low interest rates, making things into money, and new technology are making money even more important. The way the economy is changing has made people think about how money is shared, who is rich and who is poor, and how happy people are in general. The focus of money in industries that need a lot of money causes problems for jobs and moving up in society. We need to be careful with how we respond to this. Dealing with the issues that come with capital's return is complicated. It's important to find a balance between encouraging investments, keeping the economy growing, and making sure everyone is treated

fairly and included. Getting through this complicated situation involves thinking about rules, taxes, and how to help people, so that everyone can benefit from capital coming back fairly.

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