INCOME INEQUALITY, CATASTROPHE PREDICTIONS, AND THOMAS PIKETTY

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ABSTRACT: The idea that income inequality in the United States is a progressive problem that will, absent radical intervention, lead to serious economic and social problems has become prevalent. This idea has been given academic credence in a book by Thomas Piketty, a French economist. The book is *Capital in the Twenty-First Century*. This article will examine these issues. Particular attention will be given to flaws in Piketty's reasoning about this issue.

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Income inequality in the United States is an important issue in the debates for the 2016 U.S. presidential election. All of the major candidates have discussed income inequality, and a variety of proposals has been put forth.[1] Because the creation of economic policy carries the danger of inadvertently harming us all, it is important to proceed prudently. To do so, the discussion of income inequality needs to be carefully framed, so that any policy recommendations may be based on accurate data and sound analysis.

Thomas Piketty's 2013 book, *Capital in the Twenty-First Century*, has had an extraordinary influence on the income inequality debate.[2] Piketty has added a new element to this debate: that of a doomsday scenario. Piketty identified features of our capitalist system that he posits will cause worsening income inequality. This Piketty believes will lead inevitably to disastrous consequences for society.[3] He thinks that our economy will change from a free-market economy to a patrimonial system with a stable upper class and a poor lower class.[4]

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1. Josh Boak, *Income Inequality: Trump and Clinton Responses to Growing Gap Between Rich and Poor*, MERCURY NEWS (Aug. 18, 2016, 12:02 PM), http://www.mercurynews.com/2016/08/18/income-inequality-trump-and-clinton-responses-to-growing-gap-between-rich-and-poor/; Amy Chozick, *Hillary Clinton Offers Her Vision of a "Fairness Economy" to Close the Income Gap*, N.Y. TIMES (July 13, 2016), http://www.nytimes.com/2015/07/14/us/politics/hillary-clinton-offers-her-vision-of-a-fairness-economy-to-close-the-income-gap.html; Meghan Demaria, *Where the 2016 Presidential Candidates Stand on Income Inequality*, REFINERY29 (Apr. 28, 2016, 11:25 AM), http://www.refinery29.com/2016/04/108186/presidential-candidates-economic-inequality-2016; Nathaniel Parish Flannery, *Trump Nation: Does Income Inequality Now Define the U.S. Economy?*, FORBES (Aug. 15, 2016, 8:55 AM), http://www.forbes.com/sites/nathanielparishflannery/2016/08/15/trump-nation-does-income-inequality-now-define-the-u-s-economy/#2d668314649c.

2. THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY (Arthur Goldhammer trans., Belknap Press of Harv. U. Press 2014) (2013).

3. *Id.* at 571–72.

4. *Id.* at 173, 573.

Piketty concludes that radical increase in taxation is necessary to prevent this looming catastrophe.[5]

It is the aim of this article to examine income inequality in the United States and the veracity of Piketty's work, and to provide a rational basis for the ongoing debate.

I. INCOME INEQUALITY: BACKGROUND TO THE DEBATE

What is income inequality? It is a measure of the differences in income between economic units. To measure income inequality, three terms need to be defined: *income*, *economic unit*, and *measure of difference*.[6] Income can be gross taxpayer income, income after taxes, or income after taxes and with transfer payments, such as social security, Medicare, and disability payments. The economic unit can be the individual, the taxpayer, or the taxpayer and his dependents. The measure of difference in income can be calculated in a variety of ways. Three measures of income inequality are used in the literature: (1) the portion of gross domestic product (GDP) taken by the top centile and top decile (this is used by Piketty)[7], (2) the Gini coefficient,[8] and (3) the Theil index.[9] How income and economic unit are defined may lead to significant differences in the data produced and in the interpretation of the data.

It is important to note that income inequality measures the differences in the *proportion* of the GDP that accrues to a person or group. Income inequality can also be viewed as a measure of the variability of proportion of GDP between individuals or groups. The three measures of income inequality above are scale invariant. This means that if everyone's income is multiplied by the same factor, the inequality measurement remains the same.

The percent of GDP does not reveal your income unless the GDP is known. Likewise, the GDP does not reveal your income unless your share is known. For example, if your share of the pie is 10% and the pie is worth $1000, then your income is $100. If the pie is worth $2000 and your share is only 8%, then your

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5. *Id.* at 512.

6. *See* Nicholas Barr, *Problems and Definition of Measurement*, *in* ECONOMICS OF THE WELFARE STATE 120–28 (5th ed., 2012).

7. PIKETTY, *supra* note 2, at 315–23.

8. *Measuring Inequality*, WORLD BANK, http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,,contentMDK:20238991~menuPK:492138~pagePK:148956~piPK:216618~theSitePK:430367,00.html (last visited Aug. 8, 2016). The Gini coefficient is "the most commonly used measure of inequality." *Id.* It is a measure of the equality of the distribution of income in a population, "varies between 0, which reflects complete equality and 1, which indicates complete inequality (one person has all the income or consumption, all others have none)." *Id.*

9. *Id.* ("While less commonly used than the Gini coefficient, the Theil-index of inequality has the advantage of being additive across different subgroups or regions in the country. The Theil index, however, does not have a straightforward representation and lacks the appealing interpretation of the Gini coefficient."). In economic literature, the Gini coefficient is most commonly used. *Id.* Both the Gini coefficient and the Theil index are affected by data in all parts of the income spectrum. *Id.* Piketty's top centile (top decile) ignores the distribution of income in the lower 99% (90%) of incomes.

income is $160. Without knowing the value of the pie, you cannot determine your income from the share you hold. Moreover, if you know the value of the pie but do not know your share, then you still cannot determine your income. This implies that GDP and income inequality cannot be deduced from one another. This is true for the three definitions of income inequality we are considering. Some of the writers on this subject do not clearly understand this important point.

The advocates of decreased income inequality do not usually discuss growth of the GDP. Their opponents tend to emphasize data about GDP growth and assert that growth in GDP more than compensates for increased inequality. Arguments from both groups need to be considered to make informed decisions.

Assuming income inequality and general welfare[10] could be defined satisfactorily, there are, in conceptual terms, four relevant scenarios:

1. Increasing income inequality, increasing general welfare
2. Increasing income inequality, decreasing general welfare
3. Decreasing income inequality, increasing general welfare
4. Decreasing income inequality, decreasing general welfare

The redistributionists are trying to institute Scenario 3 and believe that if they are unsuccessful, then Scenario 2 will come to pass.[11] The free-market advocates believe that Scenario 1 is the current situation and if this is interfered with Scenario 4 may occur.[12] The arguments usually encountered are qualitative. There is not much effort to test these notions rigorously. Two groups of prominent scholars, one favoring redistribution methods and the other supporting free-market policies, are discussed below.

The economist Jared Bernstein[13] points out that even correcting for taxes and transfers in the Piketty data, income inequality is still rising.[14] Bernstein states increasing general welfare does not ensure a decrease in income inequality.[15] For Bernstein, the increase in general welfare is greatly outweighed by the increase in income inequality. Bernstein feels that the methods used to combat poverty are unsustainable[16] Bernstein fails to recognize that there are situations in which both general welfare and income inequality continue to rise.[17] If, for example, the income of the top half of the population grows at 2.5 percent per year and the income of the lower half grows at 2 percent per year, the income inequality will continue to rise indefinitely despite the fact that both groups will be doing very well. This is a much better situation than if everyone

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10. For this purpose, general welfare might be defined as the average net income per capita in the lowest 4th and 5th quintile of the population.

11. PIKETTY, *supra* note 2, at 571.

12. MILTON FRIEDMAN, CAPITALISM AND FREEDOM 161–76 (40th anniversary ed. 2002).

13. Jared Bernstein is a progressive economist and former chief economic advisor to Joe Biden, Vice President of the United States. Jared Bernstein, *Piketty's Arguments Still Hold Up, After Taxes*, N.Y. TIMES (May 9, 2014), http://www.nytimes.com/2014/05/10/upshot/pikettys-arguments-still-hold-up-after-taxes.html.

14. *Id*.

15. *Id.*

16. *Id*.

17. *Id.*

were advancing equally at 0.5 percent per year. The notion that persistently rising income inequality will eventually lead to increased poverty is false as the example demonstrates.

That rising income inequality is a bad thing in itself is a separate matter and should not rest on the false assumption that rising inequality necessarily decreases general welfare. The assumption made by Piketty and others that redistribution of wealth necessarily increases general welfare is also clearly incorrect, as will be elaborated later.

II. TWO PERSPECTIVES ON INCOME INEQUALITY

Income inequality and related ideas are subject to lively and useful discussion. A representative collection of views with appropriate references appears below. It is intended to provide background and introduce the literature of this subject. The economists discussed below are classified into two groups according to whether they view income inequality as a variable to be directly controlled or as a variable that should not be directly manipulated.

Among the economists that consider income inequality to be an important problem requiring direct intervention are Anthony Atkinson, Emmanuel Saez, Thomas Piketty, Joseph Stiglitz, Robert Reich, Paul Krugman, and Lawrence Summers. This is a distinguished group and includes two Nobel Prize winners (Stiglitz and Krugman).[18]

In his book, *Inequality, What Can Be Done?*,[19] Atkinson presents a comprehensive look at the inequality data.[20] He takes as hypothesis that income inequality is a problem that needs to be fixed.[21] Although Atkinson by no means wishes income inequality to disappear, he states that the current level of inequality is too high.[22]

Emmanuel Saez is an academic economist specializing in income distribution.[23] Along with Thomas Piketty, Anthony Atkinson, and Facundo Alvaredo, Saez created a public database of the history of the income share of the very wealthy.[24] These scholars believe that income inequality is a critical societal problem that is getting worse.[25] Nobel economist Joseph Stiglitz looks at uncor-

18. *Joseph E. Stiglitz–Facts*, NOBELPRIZE.ORG, http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2001/stiglitz-facts.html (last visited Aug. 9, 2016); *Paul Krugman–Facts*, NOBELPRIZE.ORG, http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2008/krugman-facts.html (last visited Aug. 9, 2016).

19. ANTHONY B. ATKINSON, INEQUALITY WHAT CAN BE DONE? (2015).

20. *See generally id.*

21. *Id.* at 1.

22. *Id.* at 9.

23. *Emmanuel Saez*, BERKELEY.EDU, http://eml.berkeley.edu/~saez/ (last visited Aug. 8, 2016).

24. WORLD WEALTH & INCOME DATABASE, http://www.wid.world (last visited July 12, 2016).

25. Facundo Alvaredo et al., *Introduction*, WORLD WEALTH & INCOME DATABASE, http://www.wid.world/#Introduction: (last visited Aug. 5, 2016).

rected income distribution data and concludes that income inequality is increasing, and that the poor and middle classes are becoming worse off.[26] He also favors proactionary policies to redistribute wealth.[27]

Robert Reich, academic economist and secretary of labor under President Bill Clinton, has a somewhat different opinion than some of the authors above.[28] Reich focuses on how the increasing concentration of wealth in a few hands leads to excessive influence on government, which results in further inequality.[29] The notion that large and wealthy corporations obtain governmental concessions that undermine economic competition is a valid concern. Decreased competition provides a drag on the economy and a decrease in economic opportunity for able citizens.

Economist Paul Krugman's[30] contributions about Piketty's work have been in the form of *New York Times* op-ed pieces and blog entries.[31] He is generally supportive of Piketty's views about income redistribution.[32] Finally, Lawrence Summers, an academic economist and economic advisor to President Barack Obama, has another view. In an article published in 2014 on income inequality, Summers expresses admiration for Piketty's work, but he opposes Piketty's proposed tax on capital.[33] He uses Piketty's work as a basis to provide support for his proposal for government employment to improve infrastructure.[34]

There are equally renowned and passionate experts on the opposite side of the debate. People whose views disagree with Piketty's redistribution proposals or who are critical of his empirical analyses include John Cochrane, Richard Epstein, Milton Friedman, Daron Acemoglu, James Robinson, and Robert Lucas. This distinguished group of economists contains two Nobel Laureates in Economics (Lucas and Friedman).[35]

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26. *See generally* JOSEPH E. STIGLITZ, THE GREAT DIVIDE: UNEQUAL SOCIETIES AND WHAT WE CAN DO ABOUT THEM (2015).

27. *Id.*

28. *See generally* ROBERT REICH, SAVING CAPITALISM: FOR THE MANY, NOT THE FEW (2015).

29. *Id.* at xi-xv.

30. In 2006, Krugman received the Nobel Prize in Economics for his work on the location of economic activity. *About Paul Krugman*, KRUGMAN ONLINE, http://www.krugmanonline.com/about.php (last visited Aug. 8, 2016). He is also professor emeritus at Princeton University, and currently is a *New York Times* columnist, blogger, and public intellectual. *Id.*

31. *See, e.g.*, Paul Krugman, *Why We're in a Gilded Age*, N.Y. BOOK REV. (May 8, 2014) [hereinafter Krugman, *Why We're in a Gilded Age*], http://www.nybooks.com/articles/2014/05/08/thomas-piketty-new-gilded-age/; Paul Krugman, *Is Piketty All Wrong*, N.Y. TIMES (May 24, 2014, 3:15 AM) [hereinafter Krugman, *Is Piketty All Wrong*], http://krugman.blogs.nytimes.com/2014/05/24/is-piketty-all-wrong/?_r=0.

32. *See* Krugman, *Why We're in a Gilded Age*, *supra* note 31; Krugman, *Is Piketty All Wrong*, *supra* note 31.

33. Lawrence Summers, *The Inequality Puzzle*, DEMOCRACY J. (Summer 2014), http://democracyjournal.org/magazine/33/the-inequality-puzzle/.

34. *Id.*

35. *Robert E. Lucas Jr.–Biographical*, NOBELPRIZE.ORG, http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1995/lucas-bio.html (last visited Aug. 8, 2016); *Milton Friedman–Facts*, NOBELPRIZE.ORG, http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1976/friedman-facts.html (last visited Aug. 8, 2016).

Critiques of income redistribution and the importance of income inequality are given by John Cochrane [36] and by Richard Epstein.[37] In particular, Cochrane concerns himself with defects in public education that contribute to inequality of opportunity.[38] Milton Friedman provides a clear view why he believes that "outcome inequality" should not be an issue in a free society.[39] Friedman, a free-market advocate, believes that government activity to help with equality of opportunity can be justified more easily than government manipulations to change economic outcome.

Daron Acemoglu and James Robinson provide a technical criticism of Piketty's notion that rate of return on capital, *r*, being larger than growth rate, *g* (that is, $r\text{-}g > 0$) is driving the economy toward inequality.[40] This is a central hypothesis of Piketty and is dealt with in the next section. In addition, Acemoglu and Robinson have made an important contribution about political influences on economic growth.[41] Lucas's contribution on growth economics is discussed later.[42]

III. THE PIKETTY ARGUMENT

In *Capital in the Twenty-First Century*, Piketty argues that income inequality will continue in the United States in the twentieth and twenty-first centuries and that middle class income is stagnating.[43] Thomas Piketty is a French economist who taught at the Massachusetts Institute of Technology (MIT) for two years (1993–1995).[44] Before publication of his influential book, his major work was a compilation of historical data about income inequality.[45] He endeavored to synthesize these data.[46]

In his book, Piketty invokes a possible catastrophe of the capitalist system, necessitating radical recommendations for tax reform.[47] Piketty argues that we are about to descend into a situation similar to that of France and England in the seventeenth and eighteenth centuries.[48] He uses the notion that the return on

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36. *See generally* John Cochrane, *What the "Inequality Warriors" Really Want*, WALL ST. J., Nov. 20, 2014, at A17.

37. *See generally* Richard Epstein, *The Piketty Fallacy*, HOOVER INSTITUTION (May 5, 2014), http://www.hoover.org/research/piketty-fallacy.

38. *See* Cochrane, *supra* note 36.

39. MILTON FRIEDMAN & ROSE FRIEDMAN, FREE TO CHOOSE: A PERSONAL STATEMENT 143–49 (1980).

40. Daron Acemoglu & James Robinson, *The Rise and Decline of General Laws of Capitalism*, J. ECON. PERSP., Winter 2015, at 3–4.

41. *See generally* DARON ACEMOGLU & JAMES A. ROBINSON, WHY NATIONS FAIL: THE ORIGINS OF POWER, PROSPERITY, AND POVERTY (2012).

42. *See infra* note 99 and accompanying text.

43. *See generally* PIKETTY, *supra* note 2.

44. *Thomas Piketty: Curriculum Vitae*, PARIS SCH. OF ECON., http://piketty.pse.ens.fr/en/cv-en (last visited Aug. 9, 2016).

45. WORLD WEALTH & INCOME DATABASE, *supra* note 24.

46. *See generally* PIKETTY, *supra* note 2.

47. *See generally id.*

48. *Id.* at 28–29.

capital, *r*, was then and is now greater than the growth rate, *g*.[49] Piketty's data and projections show that not only is *r* larger than *g* but that the difference is projected to increase.[50] Piketty asserts that this is an important driving mechanism for increasing income inequality. He thinks that absent strong intervention, we will become a patrimonial society.[51] He believes that there will be an entrenched hereditary upper class that would be supported by its wealth, and the rest of the population would be marginalized.[52] The time frame used by Piketty for his predictions is from the writing of his book through the following 50 years.[53]

Piketty does not take into account that we live in a society with quickly advancing technology. Moreover, the current annual growth rate for advanced economies is about 2 percent per capita as opposed to France and England in the seventeenth and eighteenth centuries where the growth rate was negligible. The comparative level of poverty and the abysmal growth rate in the seventeenth and eighteenth centuries have been calculated by Angus Maddison.[54] With a growth rate of 2 percent, one's grandchildren will be on average four times better off than one is now. This is in comparison to the seventeenth and eighteenth centuries, when at least 50 percent of the population of United Kingdom and France were, by current standards, in dire poverty and the growth rate of GDP was negligible.[55] Using the Angus Maddison database, the calculated growth rate of GDP per capita in France between 1600 and 1820 is 0.136 percent. This is less than 1/10th the growth rate that we experience in the United States.

Moreover, the ratio of GDP/capita of the United States in 2003 and France in 1600–1820 goes from 35 to 26. This means that the average Frenchman of that era had an income share that was between 3 and 4 percent of an average contemporary American. Any of our citizens with that income would be considered to be in dire straits. The data used from the Maddison project are as follows: GDP/capita in France was 841 dollars in 1600, 1135 dollars in 1820, and GDP/per capita was 29,037 dollars in the United States in 2003.[56] All measurements were made in 1990 International Geary-Khamis dollars. None of this seems to dissuade Piketty of his notions. Piketty presents a charming economic analysis of the novels of Balzac and Jane Austen to sharpen his analogy.[57]

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49. *Id.* at 357.

50. *Id.* at 431–32.

51. *Id.* at 515.

52. *Id.*

53. *Id.*

54. ANGUS MADDISON, CONTOURS OF THE WORLD ECONOMY, 1–2030 AD: ESSAYS IN MACRO-ECONOMIC HISTORY 382 tbl.A.7 (2007); *see also The Maddison-Project*, http://www.ggdc.net/maddison/maddison-project/home.htm (2013) (last visited Oct. 11, 2016).

55. *See* MADDISON, *supra* note 54.

56. *Id.*

57. PIKETTY, *supra* note 2, at 411–14; *see also id.* at 2 (describing the distribution of wealth in Britain and France between 1790 and 1830).

Essential to Piketty's analysis is the assumption that the growth rate for the economy will decline substantially during the twenty-first century.[58] This is based on the work of pessimistic growth economist Robert Gordon of Northwestern University.[59] Gordon's work provides one possible dismal scenario in a dynamic and rapidly changing economy.[60] To use only this material to project economic outcomes for more than 80 years into the future, as Piketty does, is highly speculative.

Piketty hypothesizes forces causing divergence.[61] They include decreasing growth rate, decreased opportunity for the poor, and the fact that the poor cannot afford the excellent financial advisors available to the rich.[62] However, Eugene Fama, the Nobel economist, showed that financial advisors as a group do not outperform the market.[63] It is to be noted that divergence, assuming that there is class mobility and all are doing well, is not necessarily a fiscal or moral catastrophe. As previously mentioned, the false notion that increasing income inequality necessarily implies that some portion of the population will become impoverished seems to be held by Piketty as well.[64]

Piketty's approach to economics is antimathematical, rejecting much of the methodological approach of his discipline, a curious view for a modern economist. In addition, Piketty has an interest in sociology and an affinity for narrative. A quotation from Piketty's book nicely encapsulates his unusual approach:

> To put it bluntly, the discipline of economics has yet to get over its childish passion for mathematics and for purely theoretical and often highly ideological speculation, at the expense of historical research and collaboration with the other social sciences. Economists are all too often preoccupied with petty mathematical problems of interest only to themselves. This obsession with mathematics is an easy way of acquiring the appearance of scientificity without having to answer the far more complex questions posed by the world we live in. There is one great advantage to being an academic economist in France: here, economists are not highly respected in the academic and intellectual world or by political and financial elites. Hence they must set aside their contempt for other disciplines and their absurd claim to greater scientific legitimacy, despite the fact that they know almost nothing about anything. This, in any case, is the charm of the discipline and of the social sciences in general:

58. *Id.* at 1.

59. Robert J. Gordon, *Is U.S. Growth Over? Faltering Innovation Confronts the Six Headwinds* 1 (Nat'l Bureau of Econ. Research, Working Paper No. 18315, 2012), http://www.nber.org/papers/w18315. Other growth economists include Robert Solow and Robert Lucas. In terms of long-term pessimism, Gordon is without peer.

60. *Id*.

61. PIKETTY, *supra* note 2, at 22–27.

62. *Id.* at 430.

63. Elizabeth Fenner, *12 Questions for Nobel Prize Winner Eugene Fama*, CHI. MAG. (Dec. 10, 2013), http://www.chicagomag.com/Chicago-Magazine/December-2013/Q-and-A-with-University-of-Chicago-Economist-Eugene-Fama/.

64. PIKETTY, *supra* note 2, at 22–25.

one starts from square one, so that there is some hope of making major progress.[65]

Piketty's suspicion of mathematics may explain his use of descriptive data ("U-shaped curve") in lieu of mathematical analysis. For Piketty a graph that has the shape of a "U" has a preternatural significance that eludes me. This may also explain Piketty's comfort with using long-term projections that differ from past trends.

Piketty's proposal for averting his hypothesized crisis to capitalism has three elements: changes in inheritance taxes, changes in income taxes, and the introduction of taxes on capital.[66] Piketty believes that there are large inherited fortunes that are difficult to document.[67] He uses, the notion that r-$g > 0$, and some assumptions about the death rate to calculate the total inheritable wealth.[68] Piketty projects that total inheritable wealth is increasing. Piketty makes no effort to modify his position with effects such as death taxes in the United States. Taxes on death are substantial. There is evidence in the United States that great fortunes dissipate with time.[69] Specific proposals on how to reduce inherited wealth are not given by Piketty. This seems to say that Piketty does not propose specific numbers and techniques as a way to achieve his goal.

With respect to income taxes, Piketty is an advocate of a top marginal income tax rate of 50–60 percent on incomes greater than $200,000 in the United States (this was 5.63 percent of households in 2014).[70] Piketty also thinks that a tax rate of 80 percent on incomes of over $500,000 to $1,000,000 would not decrease the growth of the economy overall. Piketty does not believe that high taxes would affect the output some of the most productive citizens.[71] Piketty does not justify the latter rate by the large increase in revenue it would generate. He justifies it for its effect on combating income inequality.[72]

Piketty also, and perhaps most controversially, advocates for a tax on net wealth. This is a new idea for the United States.[73] Piketty contemplates a tax rate of 2 to 5 percent per year on large fortunes and has specific suggestions.[74]

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65. *Id.* at 32.

66. *See generally id.* at 471–539.

67. *See id.* at 427.

68. *Id.* at 383–85.

69. *See id.* at 428

70. CRAIG K. ELWELL, CONG. RESEARCH SERV., RS 20811, THE DISTRIBUTION OF HOUSEHOLD INCOME AND THE MIDDLE CLASS, CONG. RES. SERVICE 2 (2014).

71. PIKETTY, *supra* note 2, at 513.

72. *Id.*

73. Countries that have a wealth tax include Argentina, France, Spain, and Switzerland. *See 2015-16 Worldwide Personal Tax Guide*, EY.COM, http://www.ey.com/GL/en/Services/Tax/Worldwide-Personal-Tax-Guide---Country-list (search database by country's name) (last visited Sept. 5, 2016) [hereinafter *Ernest & Young Tax Guide*]; *see also Sections in the Capital Gains Tax: Tax Rate*, RANKIA http://www.rankia.com/blog/impuestos/2290610-tramos-impuesto-patrimonio-tipo-impositivo (providing specific information for Spain) (last visited Sept. 5, 2016). The marginal tax rate varies from .5 to 3.5 percent, but the wealth requirements for taxation vary. *Ernest & Young Tax Guide*, *supra*.

74. PIKETTY, *supra* note 2, at 517.

He would like to tax net worth at 0 percent for fortunes up to 1 million euros, and 1 percent on fortunes between 1 and 5 million euros. He would also like to see a tax of 5 or 10 percent on fortunes above 1 billion euros. He also considers a small progressive capital tax on smaller amounts, .1 percent on 0 to 200,000 euros and .5 percent on 200,000 to 1 million euros.[75] This tax would be globally administered so that hiding assets would be more difficult. Piketty's estimate on the projected return on capital in the United States in the twenty-first century is less than 2 percent. In aggregate, therefore, the wealthy could be paying more than their expected earnings to the government. This would certainly increase the political power of government. The shift of power to government is a matter of concern to John Cochrane, and it is nicely dealt with in his essay on inequality.[76] Piketty's proposed tax might also subject a modestly prosperous couple that lives on income from savings for 30 years to the possibility of relative poverty at the end of life. A million dollars indexed and depleted at 5 percent per year at the end of 30 years becomes $215,000.

Piketty's book and its suggestions for reform have had an immediate and widespread impact on public discourse, and have helped to elevate the income inequality issue to the forefront of both public and scholarly attention.[77] The statements and implications in Piketty's book were used by a group of egalitarians, Paul Krugman among them, to provide an academic basis for their strongly held beliefs that income inequality in the United States needs to be reduced.[78] The technique they used was to extract from Piketty a doomsday scenario for capitalism that required radical government intervention to reduce income inequality.

Paul Krugman, Nobel economist and *New York Times* columnist, produced a number of comments about Piketty's book. Krugman enthusiastically supported Piketty's ideas. An important remark of Krugman follows: "And let me add something here: if you think you've found an obvious hole, empirical or logical, in Piketty, you're very probably wrong. He's done his homework!"[79]

IV. REBUTTING PIKETTY

It is commonly believed that income inequality in the United States has been increasing for the twentieth and twenty-first centuries except for a period between the two world wars. Moreover, it is believed that income inequality has become so marked that the top 1 percent of income recipients is receiving more

75. *Id.*

76. Cochrane, *supra* note 36.

77. *See, e.g.*, David Brooks, *The Piketty Phenomenon*, N.Y. TIMES (April 24, 2014), http://www.nytimes.com/2014/04/25/opinion/brooks-the-piketty-phenomenon.html. Furthermore, a Google search done on September 29, 2016 on the term, income inequality, produced 4.99 million pages. GOOGLE, https://www.google.com (using search term "income inequality").

78. Krugman, *Is Piketty All Wrong*, *supra* note 31; *see supra* note 18 and accompanying text.

79. Paul Krugman, *Piketty and Pareto*, N.Y. TIMES (Apr. 25, 2014, 8:20 AM), http://krugman.blogs.nytimes.com/2014/04/25/piketty-and-pareto/.

than 20 percent of the GDP.[80] It is thought that between 1979 and 2007 that 90 percent of gains in income went to the top 10 percent of earners, and the middle class were subjected to stagnant earnings.[81] It is also believed that the middle class has smaller real income than it had in the 1990s. These views are partly based on Piketty's data and his analysis. A typical example of this is given by Lawrence Mishel and his coauthors.[82] This reference adds the interesting hypothesis that productivity increases should be spread equally among all workers.[83] Graphs are given comparing actual progress with this odd standard.[84]

Stephen Rose, a labor economist who shares Piketty's progressive political orientation, has done calculations with corrected data and has reached conclusions at variance with Piketty.[85] The difference between the work of Piketty and that of Rose is in the definition of income. Piketty uses tax records to record income.[86] There is no correction for taxes paid, nor is there correction for income transfers such as welfare, aid to dependent children, income tax credits, or Medicare and Medicaid benefits. An income and family unit is, according to Piketty and Saez, a taxpayer and his dependents.[87] This means that the adult child living at home with a part time job is a separate unit and may be considered impoverished on the basis of his modest income. An elderly person living mainly on social security is considered destitute. Social Security payments are not part of Piketty's data.[88]

Piketty's use of tax records to approximate income is convenient and allows an easy comparison across different countries and at different times. It, however, does produce some distortions. In particular, the use of tax records ignores the government programs already in place to modulate income inequality and to

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80. LAWRENCE MISHEL ET AL., ECON. POLICY INST., WAGE STAGNATION IN NINE CHARTS 3, 5 fig. 3 (2015), http://www.epi.org/files/2013/wage-stagnation-in-nine-charts.pdf.

81. *See id*. 6 fig. 4.

82. *See, e.g.*, *id.*

83. *Id*. at 4.

84. *See, e.g.*, *id*. 4 fig. 2, 10 fig. 9.

85. STEPHEN J, ROSE, WAS JFK WRONG? DOES RISING PRODUCTIVITY NO LONGER LEAD TO SUBSTANTIAL MIDDLE CLASS INCOME GAINS? 23–24 (Dec. 2014), http://www2.itif.org/2014-rising-productivity-middle-class.pdf?_ga=1.123958410.1251807865.1470372654.

86. PIKETTY, *supra* note 2, at 17.

87. Emmanuel Saez, *Striking It Richer: The Evolution of Top Incomes in the United States, (Updated with 2015 Preliminary Estimates)*, ECONOMETRICS LABORATORY (June 30, 2016), http://eml.berkeley.edu/~saez/saez-UStopincomes-2015.pdf. Saez states:

> We define income as the sum of all income components reported on tax returns (wages and salaries, pensions received, profits from businesses, capital income such as dividends, interest, or rents, and realized capital gains) before individual income taxes. We exclude government transfers such as Social Security retirement benefits or unemployment compensation benefits from our income definition. Non-taxable fringe benefits such as employer provided health insurance is also excluded from our income definition. Therefore, our income measure is defined as cash market income before individual income taxes (citing work done jointly with Piketty).

Id. at 3. *See also* Thomas Piketty & Emmanuel Saez, *Income Inequality in the United States, 1913–1998*, 118 Q. J. ECON. 1, 4 (2003) ("A tax unit is defined as a married couple living together (with dependents) or a single adult (with dependents).").

88. ROSE, *supra* note 85, at 10–11.

ameliorate poverty. This includes progressive taxation of income, taxes on capital gains and on dividends, Social Security benefits, Medicare and Medicaid, Obamacare, and so forth. The universe described by Piketty's data[89] is one where the kind of government programs that Piketty advocates in his book are not in place. Piketty's data are from tax records alone and are isolated to the income portion of this document. Neither the family unit nor the adjustments to income are accurately reflected in this data set. This does not describe fairly the conditions in the United States.

Stephen Rose used a data set that corrected for the effects discussed above.[90] He used Congressional Budget Office (CBO) data rather than tax filing data to compare the gain in income between the upper 10 percent of Americans and the lower 90 percent between 1979 and 2007.[91] Under the Piketty approach, 91 percent of the gain accrued to the top 10 percent, and just 9 percent to the lower 90 percent of the population.[92] In Rose's analysis using CBO data, the bottom 90 percent obtained between 42 and 47 percent of the growth. This is not an equal share, to be sure, but would comparatively provide significant increases in lifestyle.[93]

Using CBO data, Rose demonstrates that real median income increased by 30 to 49 percent during the period from 1990 to 2009.[94] This is in stark contrast to the Piketty data, which show income stagnation in the middle class during this period.[95] It is to be noted that Rose's analysis shows that income inequality does increase during the period he analyzes.[96] However, the rate of rise and the level of inequality are much less than that calculated by Piketty tax data.

Rose summarizes his analysis and compares it to Piketty as follows:

> Why does this matter? Because if it's actually true that productivity no longer benefits most workers, then why should elected officials do the hard work of advancing pro-productivity policies like corporate tax reform, investment in science and technology, and the development of sector-based productivity strategies. Better to concentrate their efforts on policies to redistribute gains to the bottom 90 percent . . . .
>
> In other words, Piketty and Saez and other advocates of the message that productivity no longer benefits average American workers are wrong. Lower and middle class workers have gained and are likely to continue to gain going forward from increases in productivity. Therefore, it would be a major mistake for U.S. economic policy to abandon growth in favor of an agenda principally focused on redistribution of a fixed "pie."[97]

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89. *See* PIKETTY, *supra* note 2, at 18.
90. ROSE, *supra* note 85, at 2.
91. *Id.*
92. *Id.* at 1, 23.
93. *Id.* at 1–2.
94. *Id.* at 2.
95. *Id.* at 13.
96. *Id.* at 23.
97. *Id.* at 1–2.

Because of Rose's careful work, the notion that the middle class has been either stagnant or declining in growth during the last several decades, and that the share of growth enjoyed by the middle class is minimal, is shown to be mistaken.[98]

Nobel economist Robert Lucas[99] looked at growth and produced some results that are more optimistic about the future than Thomas Piketty.[100] Lucas looked at GDP per capita, indexed for inflation for the years 1870 to 2008.[101] This period of 133 years includes the Industrial Revolution, two world wars, the stock market crash of 1929, and the Great Depression. The average annual growth rate of indexed GDP per capita was 1.85 percent for the entire period and was 2.1 percent in the period 1947 to 2008, which starts following the recovery after the Great Depression.[102]

One of the graphs that Lucas presents is the logarithm of indexed GDP per capita during this period.[103] This graph shows remarkable adherence to a line with a slope corresponding to a 2 percent annual growth rate.[104] This would suggest that an approximate 2 percent growth rate was the "natural growth rate" for our economy during this 133-year period.[105] At this rate, the real GDP per capita doubles every generation and increases eightfold in a century. If this is persistent, the U.S. economy is a remarkable economic engine. It is to be noted that the 133 years described by Lucas is longer than many of the intervals considered by Piketty.[106] Lucas's graph is based on data from Angus Maddison on long term indexed GDP per capita throughout the world.[107]

As is seen from the foregoing, neither evolution of income inequality alone nor growth of GDP per capita alone is enough to assess the economic progress of the population. Both need to be considered and the joint data must play a role in the assessment of the economic state of the population.

Of all the responses to Piketty's *Capital in the Twenty-First Century*, one was most devastating. The Initiative on Global Markets (IGM) is a panel maintained by the Booth School of Business at University of Chicago since 2012.[108] It includes a number of prominent academic economists drawn from diverse and

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98. *Id.* at 2.

99. Robert E. Lucas Jr. received the Nobel Prize in Economics in 1995. Press Release, The Royal Swedish Acad. of Sci., Rational Expectations Have Transformed Macroeconomic Analysis and Our Understanding of Economic Policy (Oct. 10, 1995), http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1995/press.html. An expert in economic growth, he developed and applied the hypothesis of rational expectation and markedly changed macroeconomics thereby. *Id.*

100. ROBERT E. LUCAS JR., *The History and Future of Economic Growth*, *in* THE 4% SOLUTION: UNLEASHING THE ECONOMIC GROWTH THAT AMERICA NEEDS 27 (Brendan Miniter ed., 2012).

101. *Id.* at 27–28.

102. *Id.*

103. *Id.* at 28 fig. 2.

104. *Id.*

105. *Id.*

106. *Id. See generally* PIKETTY, *supra* note 2.

107. LUCAS, *supra* note 100, at 40; *see also The Maddison-Project*, *supra* note 54.

108. *IGM Forum: Piketty on Inequality*, CHI. BOOTH (Oct. 14, 2014, 11:22 AM), http://www.igmchicago.org/igm-economic-experts-panel/poll- results?SurveyID=SV_5v7Rxbk8Z3k3F2t.

distinguished institutions in the United States.[109] The members of the panel have a variety of economic interests and political views.[110] These economists are given questions on matters of economic interest.[111] Their responses are tabulated and made publicly available. On October 14, 2014, IGM polled its panel of economists about the following summary of Piketty's assertions: "The most powerful force pushing towards greater wealth inequality in the U.S. since the 1970s is the gap between the after-tax return on capital and the economic growth rate."[112] Of the 34 (of 41) economists on the IGM panel that responded, only one supported Piketty's statement.[113] One of the votes against Piketty was by his collaborator, Emmanuel Saez of Berkeley.[114]

Subsequent to the publication of the IGM poll, Piketty published a response.[115] In his response, Piketty backs away from the statement analyzed by the IGM.[116] Piketty says, in essence, that his statement about the significance of r-$g > 0$ should not be used for predictive purposes.[117] He views his book as a narrative to emphasize the value of his income distribution data set rather than a forecast of the future.[118]

That r-$g > 0$ is not a driver of the economy, in my view, makes perfect sense on the basis of elementary reasoning. Because capital is traded in an open market, its price is a result, not a cause, of market conditions. If Piketty feels that capital is mispriced, he is free to buy it or sell it. A businessman, if he believed Piketty, might be better advised to buy the shares of someone else's business rather than start a business of his own. I question, therefore, that r-$g > 0$ is a problem.

Income inequality is a complicated issue with a variety of opinions held by respected economists and other scholars. Thomas Piketty asserts that, absent radical reform, capitalism in the United States is doomed. There is a consensus among the vast majority of economists that Piketty's reasoning is incorrect on this issue. Piketty's proposal that taxes should be raised and extended in scope cannot be justified by his posited catastrophe. Income inequality will continue to be debated as a moral issue. Piketty's notion of imminent disaster should not be part of this discussion.

109. *Id.*

110. Some of the economists in the IGM in 2014 Panel included William Nordhaus of Yale University, Angus Deaton of Princeton University, Daron Acemoglu of MIT, and Marianne Bertrand of the University of Chicago. *Id.*

111. *Id.*

112. *Id.*

113. The lone supporter was Hilary Hoynes, professor of public policy and economics and Hass chair in economic disparity at University of California, Berkeley. She provides no comments about her view. *Id.*

114. *Id.*

115. *See* Thomas Piketty, *About Capital in the 21st Century*, 105 AM. ECON. REV.: PAPERS & PROC. 48 (2015).

116. *Id.*

117. *Id.* at 48.

118. *Id.*

As was seen above, data and the details of measurement can be critical in evaluating the economy. Stephen Rose and Thomas Piketty reached different conclusions about the status of the middle class on the basis of the definition of income and economic unit. The concept of income stagnation is false and needs to be discarded.

Of concern, in my view, is that politicians and their advisors who cannot necessarily be expected to follow the academic debate on Piketty, might still hold views derived from Piketty's book. Reading Piketty's introductory material, recommendations, and conclusions and accepting this material as canon could be a recipe for disaster. Ironically, while Piketty raises a red flag about a coming economic doomsday, the policies he advocates to address this problem, distorted by his flawed analysis, would have an even greater catastrophic effect.