

# Utility Capital in the Twenty-First Century

What FERC might learn from Thomas Piketty and his best-selling book on wealth and income.

BY DAVID E. POMPER

“Utility regulation is yielding good results for owners. Whether it will do as much for ratepayers remains to be seen.”

— David Pomper



To Thomas Piketty’s *Capital in the Twenty-First Century*,<sup>1</sup> “attention must be paid.”<sup>2</sup> The Parisian economist’s tome has become a best-seller on both sides of the Atlantic, for good reason: Piketty has married incisive theorizing to painstaking data-crunching, to produce a lucid summary of capitalism’s past and likely future.

Piketty’s policy prescriptions – including a global progressive tax on capital – are controversial. Nonetheless, his empirical work (a few minor quibbles aside) has been commended by numerous well-regarded economists, and they hold significant lessons for utility regulators. In particular, they provide a useful background against which to understand the Federal Energy Regulatory Commission’s recent Opinion No. 531,<sup>3</sup> in which FERC addressed a Federal Power Act Section 206 complaint concerning the return on equity (“ROE”) allowed to New England transmission owners.

1. Published in 2014 by Belknap Press of Harvard University Press; hereafter *Capital 21st*.
2. Arthur Miller, *Death of a Salesman*, Act I. Willy Loman’s lament in the next act anticipates Piketty’s concern for the half of society that cannot amass significant capital: “After all the highways, and the trains, and the appointments, and the years, you end up worth more dead than alive.”
3. *Martha Coakley, Massachusetts Attorney General, et al. v. Bangor Hydro-Electric Co., et al.*, 147 FERC ¶ 61,234 (June 19, 2014).

Piketty and his collaborators have pored through centuries of property and tax records to see beyond short-term fluctuations and second-order effects, so as to isolate capitalism’s fundamental mechanics.<sup>4</sup> In Piketty’s provocative analysis, those mechanics revolve around the number of years of income stored up as wealth, aggregated either globally, or by nation, or by population percentiles. For example, he shows that for pre-WWI Britain and France, this wealth ratio approached 7:1 (tradable assets equaled almost seven years’ income) before the two world wars halved it, and has since substantially

4. Piketty’s overall approach resembles that which Newton brought to the study of motion. Newton and his antecedents studied motion in so many different contexts that they could transcend its messy variations (*e.g.*, the friction that makes velocity seem scaled to force) and model its first-order equations (*e.g.*, without friction, it is velocity’s derivative, acceleration, that scales to force). Similarly, Piketty has assembled economic data of such duration and scope that it can be used to isolate capital’s main tendencies from historical perturbations and second-order effects such as taxes, depreciation, and inflation.

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rebounded. In his model, and to a first-order approximation, three key ideas stand out:

■ The share of annual income that goes to those holding capital equals the wealth ratio multiplied by the average rate of return on capital;

■ A nation's wealth ratio will trend towards its savings rate divided by its income growth rate; and

■ The rate of return on capital falls as wealth accumulates, but does not fall as fast as wealth grows, because new productive uses for capital continue to be found.

Piketty's principal conclusion is that in times of peaceful slow growth, average return on capital inherently tends to exceed average income growth. That difference keeps nations' wealth ratios on an upward spiral. It also has distributional implications, because wealth tends to concentrate as its owners accumulate their returns faster than they spend, with the wealthiest owners taking the largest and best-informed risks and therefore enjoying the highest returns.

Piketty predicts that if global population growth continues to slow as demographers expect, developed nations' wealth ratios will continue to rise, reaching or even exceeding the 7:1 ratios that European empires once enjoyed—before the guns of another August '14 ended their "Belle Époque." Despite the developed world's since-replenished store of wealth, Piketty anticipates that capital will continue to enjoy nearly its historical average return of 5%, staying above 4%. He concludes that the investing-class elite therefore will own a dominant and increasing share of wealth, absent substantial redistribution through egalitarian democracy.

Piketty's work engages issues orders of magnitude beyond the New England region's electric transmission return on equity ("ROE"), the issue in FERC's

Opinion No. 531. His concerns are global, macroeconomic, and long-term, not whether a mere six states' ratepayers, assessed ROEs of 11.64% or more for regional transmission services, have been paying global capital too much. But decisions like Opinion No. 531 are where democracy's egalitarian founding principles<sup>5</sup> must wrestle with, or surrender to, global capital's tendency towards wealth concentration.

In broad terms, FERC's Opinion No. 531 (which remains subject to rehearing and appeal) combines two decisions.

First, the Opinion holds that the electric industry's restructuring has now matured to the point where electric utilities cannot be expected to continue growing their revenues into the long term at the same rate that investment analysts project they will enjoy over the next few years. Accordingly, FERC has now replaced the one-stage, "constant growth" version of the Discounted Cash Flow ("DCF") methodology that it has been using for electric utilities since well before the 21st century. The new version uses two growth stages, and resembles that already used by FERC for pipeline ROEs. The reason for using two stages is to account for the likelihood (in the longer run, the certainty) that the long-term growth of any one firm will not exceed the long-term growth of the economy as a whole. FERC initiated further, "paper hearing" procedures to determine the specific metric and level to use as the second-stage growth rate,

but used 4.39% based on several long-term forecasts of GDP growth.

Second, the Opinion sets New England's Base ROE above the levels indicated by 35 out of 38 DCF study proxies, essentially on the ground that following the weight of those results would have produced an ROE lower than FERC was prepared to order in a case that Wall Street has been following closely. Instead of the 9.11% median of DCF proxy results or their 9.39% midpoint, the Opinion sets New England's Base ROE at 10.57%, halfway between that midpoint and the highest proxy company result. Extra rewards are then added to that Base ROE, so that virtually all New England transmission investment enjoys ROEs of 11.07% or more.

FERC's shift to a two-stage growth rate echoes Piketty's explanation of the slowed average growth that the world has now seen for many years, and that a growing consensus (including the U.S. Bureau of Labor Statistics) views as the "new normal."<sup>6</sup> Piketty explains that outside "catch up" anomalies, such as recovery from wartime destruction or undeveloped economies rising to developed-world standards, per-capita income grows at about 0.8%. Global average growth has slowed, and is expected to remain slow by comparison to the second half of the 20th century, due to economic fundamentals. Populations are stabilizing. Anomalous growth tied to Europe's recovery from war's destruction and

5. Piketty's moral touchstone is the statement, penned by Thomas Jefferson and Lafayette and included in the French Revolution's Declaration of the Rights of Man and the Citizen, that "Social distinctions can be based only on common utility." Within their narrower sphere, Federal Power Act Section 206 and Natural Gas Act Section 5 are much to the same effect: they seek to prevent exploitative rates and undue discrimination, and in evaluating what rates are justified, they ultimately look to the public interest.

6. See, e.g., Binyamin Appelbaum, *U.S. Economic Recovery Looks Distant as Growth Stalls*, N.Y. Times (June 11, 2014) (available at [http://www.nytimes.com/2014/06/12/business/economy/us-economic-recovery-looks-distant-as-growth-lingers.html?\\_r=0](http://www.nytimes.com/2014/06/12/business/economy/us-economic-recovery-looks-distant-as-growth-lingers.html?_r=0)); Maggie Woodward, *The U.S. Economy to 2022: Settling Into a New Normal*, U.S. Dept. of Labor Bureau of Labor Statistics Monthly Labor Review (Dec. 2013) (available at <http://www.bls.gov/opub/mlr/2013/article/the-u-s-economy-to-2022-settling-into-a-new-normal-1.htm>)

communism's dysfunction is ending. So is anomalous growth due to developing economies like China and India racing towards parity with the global technological frontier.

On the other hand, Piketty's work casts doubt on FERC's placement of New England's Base ROE above 35 of FERC's 38 proxy company DCF results. FERC was evidently surprised to see that without an upwards adjustment, the straight result of its own DCF study was an indicated ROE in the low 9 percent range. But that should not have been so surprising. Piketty shows that the long-term average real return on all forms of investment is 4%-5%. He also provides a basis to expect returns to trend towards the lower end of that range. The same economic fundamentals that are slowing global growth have enabled the wealth ratio to soar in recent years,<sup>7</sup> as Europe healed its 20th-Century wounds, North America continued to build on its land, developing nations accumulated stores of capital, etc. As the wealth ratio increases, the average rate of return decreases, because the best investment opportunities are already

funded and additional investment capital has to chase worse opportunities. It should not be surprising to see the price paid to utility investors for their capital decline given that rising capital supply.

Moreover, inflation is currently below 2%, and the same long-term models on which FERC relied to project GDP growth expect its long-term average to remain below 2% for decades to come. Thus, escalating Piketty's average real return on investment to include inflation, the current, and the expected future, nominal return on average investments is 6%-7%.<sup>8</sup> By that measure, if the current risk of utility equity is average compared to all capital investments, then at the 10.57% Base ROE that FERC is allowing for New England transmission, (even before considering incentive adders), utility equity will enjoy about a 4% risk premium compared to average-risk investments. Is utility equity really that much riskier than the average investment?

FERC did not consider this broader background in deciding that New England's Base ROE should be placed at 10.57%, above 35 of 38 of FERC's

proxy results. Instead, FERC relied on "benchmarks" such as testimony that past state commission ROE decisions exceeded 9.39%. FERC did not notice, however, that those decisions centered at 10.0% (in the lagging evidence that FERC cited) or at 9.92% (in the *Public Utilities Fortnightly* annual ROE survey, published in November 2013 while FERC deliberated<sup>9</sup>). The readiness with which FERC was prepared to depart upwards from the results of its just-revamped DCF methodology may provide some indication of who, at this moment in the capital vs. democracy wrestling match, has the upper hand.

So too may the Dow Jones Utility Average. On the day that Opinion No. 531 issued, it set an all-time historical record. Clearly, then, utility regulation in the twenty-first century is yielding good results for utility owners. Whether it will do as much for ratepayers remains to be seen. ■

7. See, e.g., *Capital 21st*, Figure 5.8.

8. See, e.g., <http://www.bls.gov/news.release/pdf/cpi.pdf>.

9. *Public Utilities Fortnightly* (Nov. 2013), at 27. Averaging all of the ROEs in the survey's rightmost column ("Newly Authorized ROE Rate") that represented either an increase or a decrease from the prior ROE yields 9.92%. Including those no-change instances (several of which actually represent rate stabilization formula ranges, as noted in *Fortnightly's* footnotes) raises the average slightly, to 10.02%.

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