

A Kaleckian wealth tax to support a Green New Deal

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Abstract

Green New Deals are being widely discussed as both a means to confront climate change and to improve aspects of social well-being. An important facet of the discussion is how they should be financed. The negative impacts of Covid-19 on national budgets and sovereign debt question whether the implementation of Green New Deals is feasible if austerity needs to be introduced to achieve sustainability. This article assesses whether a wealth tax based upon the work of Michal Kalecki could help avoid austerity measures and facilitate the introduction of Green New Deals. While wealth taxes have traditionally been defined on net worth or assets to reduce wealth inequality, the formulation is meant to be equitable by applying to gross wealth or assets. Estimates are calculated for the United States and turn out to be quite modest. The approach not only generates revenue to cover expected net interest outlays on national debt, but additional revenue to pay down portions of it and/or support green initiatives, such as Biden's de-carbonisation policy. The article concludes with a discussion of challenges for the tax's effectiveness.

JEL Codes: H2, H3, B2, B3

Keywords

Austerity, Biden, Green New Deal, Kalecki, wealth tax

Introduction

Proposals for a Green New Deal (GND) have received increasing attention as the effects of climate change emerge in the context of sluggish economic growth and job creation and rising inequality. The Covid-19 pandemic has exacerbated these phenomena further.

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The projects within these proposals encompass provisions for healthcare, food security and housing besides energy, infrastructure and employment. While not explicitly part of a GND, President Biden's de-carbonisation policy looks to become the first step towards adoption of green initiatives for the American economy. A key question for the adoption of a GND and green initiatives is how they could be financed.

Covid-19 adds a serious challenge because of the negative impact on national budgets and debt. According to the International Monetary Fund (IMF), the estimated general government fiscal balance for the world economy for 2020 is -11.8% of gross domestic product (GDP; from -3.8% in 2019) and gross debt is projected to increase to 97.6% of GDP (from 83.5% in 2019). Fiscal balances are expected to: contract to -13.3% in 2020 (from -3.3% in 2019) in advanced economies; weaken to -10.3% (from -4.8%) in emerging markets; and worsen to -5.7% (from -4.0%) in low-income countries. Gross debt is also expected to increase to: 132.1% of GDP (from 112.7% the year prior) for advanced countries; 63.3% (from 54.3%) for emerging markets and 48.5% (from 43.3%) for low-income countries. The 2020 fiscal balance for the United States, alone, is projected to contract to -17.5% , recovering to -11.8% in 2021. Its gross debt is expected to reach 134.7% of GDP in 2021 (from 112.7% in 2019). Australia's fiscal balance is expected to reach -11.4% in 2021 (from -3.8% in 2019), and its gross debt will hit 74.8% in 2021 from 47.4% in 2019 (IMF, 2021).

After providing record support to their economies in the wake of Covid-19 of nearly US\$ 14 trillion, national governments are now considering dramatic shifts in budget strategies. These strategies will likely involve austerity measures to achieve sustainability of increased sovereign debt burdens. Rating agencies contribute to that pressure through changes in outlooks and ratings. For instance, Fitch placed the sovereign rating outlook for United States on negative watch in July 2020 due to deteriorating public finances and lack of a consolidation plan to address it. With respect to Australia, strong fiscal spending prompted Standard and Poor (S&P) Global ratings to place its AAA credit rating on a negative outlook, as well the AAA ratings of NSW and Victoria. Fitch downgraded the country's banks from AA+ to A- because of expected business failures and job losses (Kehoe and Shapiro, 2020). The introduction of GNDs and green initiatives will be tricky in this context as they are likely to be debt-financed, increasing the burden of national debts.

This article evaluates the feasibility of a wealth tax to generate the revenue needed to keep austerity at bay, reduce reliance on new borrowing and finance green initiatives which could facilitate the adoption of a GND. Wealth taxes have traditionally been defined as a tax on income based upon net worth or assets above some set threshold. They are intended to reduce wealth inequality. To date, the following countries have a wealth tax in place: Argentina, Colombia, France, Norway, Spain, and Switzerland. Colombia's tax, for example, is 1% on net worth more than COP 5 billion. France's tax on net wealth ranges from 0.5% to 1.5% for net value of real estate more than EUR 800,000. Norway employs 0.7% at the level of the municipality and 0.15% at the national level, where the thresholds for net wealth NOK 1.5 million for singles and NOK 3.0 million for couples. Switzerland's tax on net wealth varies according to the Canton (Bunn, 2021).

Taxes on net wealth do not have a strong record of success. Organisation for Economic Co-operation and Development (OECD) countries that relinquished wealth taxes include Austria, Denmark, Finland, Germany, Iceland, Luxemburg and Sweden. The reasons why include concern about the lack of effectiveness in raising revenues and the possible disincentive to entrepreneurial activity, investment and economic growth (OECD, 2018). Reasons for lack of effectiveness include narrow tax bases, tax avoidance and evasion, and costs of administering a wealth tax (such as updating asset values). For instance, debt is a way to lower net worth and avoid a wealth tax. It comes with the disadvantage of facilitating the development of financial fragility which renders the overall financial system vulnerable to an event it cannot withstand.

There have been proposals to use wealth taxes to not only reverse inequality but contribute to social programmes. United States (US) Senator Elizabeth Warren, for instance, has argued for a 2% tax on net wealth greater than US\$ 50 million and 6% for wealth greater than US\$ 1 billion. The anticipated revenue over the next 10 years is US\$ 3.75 trillion and is intended for social programmes. The Congressional Budget Office (CBO, 2020), however, estimates that the projected interest outlays over this period will be US\$ 4.057 trillion. While Warren's wealth tax intends to rebalance wealth distribution and generate revenue, the efforts may be sidelined by the need to honour projected interest outlays and keep the threat of austerity at bay. Can the design for a wealth tax be improved?

At present, the post-Keynesian literature does not offer much for the design of a wealth tax. However, the work of the late Michal Kalecki (1899–1970) offers a possibility. He argued for the creation of a tax on gross, as opposed to net, assets or wealth – which is equitable. All assets incur the same rate, with possible exemption for those who hold relatively little wealth. His approach to debt sustainability emphasises the relationship between the rates of growth of gross private assets and sovereign debt. This is different from the conventional view of sustainability which emphasises the relationship between economic growth and the interest rate. The note examines the feasibility of this idea as follows.

The next section – ‘How expensive is a Green New Deal?’ – begins with the goals of a GND, as articulated by the US House of Representatives in early 2019. Data from the CBO (2020) regarding the future trajectory of national debt, interest payments, interest rate forecasts and debt-to-GDP ratios for the next 10 years are provided as a starting point. The resource costs of the green initiatives associated with a GND are incorporated into the debt stock. The Biden presidency is hesitant to adopt GND programmes in one fell swoop. Rather, the entry will occur through Biden's de-carbonisation policy which focusses on carbon-reduction, transportation and infrastructure initiatives. It is estimated to cost US\$ 1.9 trillion over 10 years. In what follows a wealth tax will be estimated using a higher cost to demonstrate its feasibility at that level, and by implication the feasibility for Biden's approach.

‘A Kaleckian wealth tax’ presents a design for a post-Keynesian wealth tax, emphasising the growth of assets in relation to the growth of national debt. Empirical estimates are provided using data from the United States and suggest the size of the rate of tax is quite modest. It will slow the growth of private assets, not erode the stock of assets. Estimated revenue could not only generate funds to honour forecasted interest outlays,

consistently, but also revenue to reduce reliance on new borrowing and partially support green initiatives (Biden's de-carbonisation policy in its entirety). Funds set to reduce reliance on new borrowing could stabilise the debt-to-GDP ratio, a key, conventional indicator of debt sustainability used by rating agencies in their assessments of sovereign risk. Suggestions are provided for adapting the tax to contexts characterised by negative interest rates.

The section 'Relevance and feasibility of a Kaleckian wealth tax' discusses the relevance of Kalecki's ideas for today's world of financialisation and large wealth holders. The design is linked to a recent post-Keynesian explanation of the source of Piketty's observations on inequality, savings by capitalists. The staggered implementation of a wealth tax is the most promising route for incorporating it into the tax system. The section discusses the effectiveness of a wealth tax by addressing the typical concerns, such as 'stacking' and tax avoidance and evaluates the Kaleckian tax against the OECD's design recommendations for a wealth tax. The last section concludes with a discussion of the possibilities for fiscal expenditure which now arise.

How expensive is a GND?

In early 2019, the US House of Representatives articulated the goals of a GND as ensuring all people in the United States have access to health care, housing, economic security (through a family-supporting wage rate or income), food security, clean air and water, and access to nature. The goals are addressed through upgrades to the transportation system and energy grid and through the introduction of a universal healthcare system, programmes for green housing and food security, and guaranteed jobs. The suggested dates of implementation are over a 10-year period, at the time from 2020 to 2029 (US House of Representatives, 2019).

The American Action Forum (AAF) estimated the expenditures associated with these goals over a 10-year period as approximately US\$ 93 trillion or about US\$ 670,000 per household. The estimated cost of a low-carbon energy grid is US\$ 5.4 trillion (US\$ 39,000/household); a net zero emissions transportation system costs US\$ 1.3–2.7 trillion (US\$ 9000–20,000/household); guaranteed jobs programme costs US\$ 6.8–44.6 trillion (US\$ 49,000–332,000/household); universal health care costs US\$ 36 trillion (US\$ 260,000 per household); guaranteed green housing ranges from US\$ 1.6–4.2 trillion (US\$ 12,000–30,000/household) and food security is an estimated US\$ 1.6 billion (US\$ 10/household), (Holz-Eakin et al., 2019). The staggering figure of US\$ 93 trillion, the highest so far, gives one pause about the feasibility of a GND.

Nersisyan and Wray (2019) revisited the figures to account for the effects of feedbacks between the components and savings obtained if the States adopted different policy stances. Their approach emphasises the mobilisation of resources for a GND, recognising that utilisation of capacity varies across industries and better allocation of resources, particularly underutilised resources, can yield savings. For instance, the projects involving upgrades to infrastructure and energy sources will entail the employment of workers who are part of the jobs guarantee programme. The two components cannot be evaluated on a stand-alone basis, as with the AAF estimation, which leads to double-counting costs. Based upon simulations from the Levy Economics Institute, the

estimated resource cost of the job guarantee component is US\$ 200 billion annually or about 1% of GDP (Nersisyan and Wray, 2019). The green initiatives were estimated to be 5.6% of GDP or US\$ 1100 billion, determined as an average of estimates reviewed by the authors. Together, these two components amount to US\$ 1300 billion per year or 6.6% of GDP. Healthcare – Medicare-for-All – enters as a negative figure of –3.7% of GDP, as savings can be obtained by reducing administrative overhang involved with healthcare plans and insurance coverage, fraud reduction, waste elimination and price reductions on pharmaceuticals. Other savings could be found by ending ‘forever wars’. Additional funds could be obtained by taxing the rich via income tax changes and implementing a payroll tax surcharge. In all, Nersisyan and Wray (2019) suggest that the resource costs of a GND could be reduced to 1.7% of GDP (without payroll tax surcharge) or even –0.7% (with tax surcharge). After accounting for feedbacks, the most expensive component, in their view, is the green projects (US\$ 11.1 trillion over 10 years).

There are other proposals for a GND, and the cost or resource estimates for each will depend on the configuration and assumptions made. For space considerations, this article cannot provide an overview of the variations (see Galvin and Healy (2020) for a history of GND proposals and discussion of recent cost estimates). Rather, this contribution will focus on the green projects’ component since the range of proposals have this at their core and this component will be the most expensive. It is also the area in which President Biden’s de-carbonisation policy will emerge as the starting point to address climate change. Recent cost estimates of green initiatives range from Biden’s suggested US\$ 190 billion/year to US\$ 1.0–1.1 trillion/year (Holz-Eakin et al. (2019), Nersisyan and Wray (2019), Pollin et al. (2014) and Bernie Sanders (as elaborated by Galvin and Healy (2020)). Again, if a wealth tax is feasible at the high-end of the cost spectrum, say, US\$ 1.1 trillion/year, then it will have credibility for proposals at the low end, where the Biden proposal sits.

We begin with the trajectory of national debt without the incorporation of any element of a GND. According to the CBO, the projected national debt (held by the public), debt–GDP ratio, net interest outlays and interest rate projections are located in Table 1.

Between 2021 and 2030, the national debt is expected to increase approximately 48.4%, from US\$ 22.5 trillion to 33.3 trillion. The debt-to-GDP ratio is expected to rise to 105.0% from 102.3%. Net interest outlays will increase approximately 129.4% between 2021 and 2030, where the total estimated amount due over this period is US\$ 4.057 trillion. From the current low rates of 0.16% on 3-month Treasury bills and 0.83% for 10-year treasury notes, both the short- and long-term (LT) rates are expected to rise to 1.96% for the short-term rate and 3.15% for the LT rate by 2030.

Notice that the net interest outlays vary over the projected 10-year range. The wealth tax needs to be such that it generates revenues which are consistently greater than those outlays. Anything more than net interest outlays can be used to slow the growth of debt and/or finance green initiatives. Slowing the growth of new borrowing, or reducing the reliance on new borrowing, could potentially stabilise, if not reduce, the debt/GDP ratio. Controlling the ratio, moreover, will help keep austerity measures at bay and contain financing costs on new borrowing.

A Kaleckian wealth tax

The post-Keynesian literature is noted for its lack of discussion and recommendations regarding a wealth tax. Rather, one often finds Keynes' suggestion in *The General Theory of Employment, Interest and Money* (1936) of euthanising the rentier to strengthen the marginal propensity to consume and economic growth (Zorn and Pressman, 2020). The late Michal Kalecki (1899–1970), a Polish economist whose work has a tremendous influence within the post-Keynesian community, argued years ago that financing public expenditure needed to occur without distorting the incentives to invest or consume. He thought it was possible to formulate a capital or wealth tax in such a way that national debt is sustainable *and* do so equitably where everyone pays the same rate on their assets. An income tax, in contrast, will likely fall heavily on the earnings of waged and salaried workers, and earnings of businesses. Their taxes will pay the interest on debt held by financial wealth holders. Their incentives to consume and invest are weakened, thus, reducing aggregate demand. We are interested to go beyond Kalecki's insights by adding the financing needs of green initiatives to the national debt and the tax calculation and, suggest what to do when a country experiences negative interest rates.

The idea behind an equitable capital or wealth tax is to set a tax on privately held assets (the value of capital) in the same proportion as the interest rate on the national debt:

$$iD = tK \text{ or } t = i(D/K)$$

where i is the rate of interest, D is the national debt, K is total national wealth (privately held) and t is tax. (Notation after Nell (1988)). Assets include plant and equipment, real estate, savings accounts, bonds, stocks – *any* form of wealth (privately held). Investment or capital allocation, and, thus, production and employment, are not distorted as the tax is applied to all forms of wealth. Moreover, the propensity of wealth holders to consume is also unaffected. If government borrowing increases, the interest income to wealth holders increases. The capital tax increases accordingly to cover the additional income, (Nell, 1988: 247). As the tax would apply to gross assets, and not net assets, debt cannot be used to lower one's tax liability.

The following application is based upon the United States because of data availability. Balance sheet data for the sectors can be located at the Federal Reserve Economic Data (FRED). Data for households and non-profit organisations are in Table B101 (code TABSHNO), non-financial non-corporate firms are in Table B104 (code TABSNNB), non-financial corporate firms are located at Table B103 (code TABSNNCB) and domestic financial sectors are in L108 (FBTFASQ027 S). Annual data series were used (average for the year). Total private assets data were constructed for years 1990–2020, where each year's observation is the sum of the corresponding observations of each sector (the data are available in Table A of the Online Supplementary File). The observations for total private assets in future years were compiled by assuming total assets grow at their average historical rate of 5.99% (1990–2020) and are noted where appropriate in subsequent tables.

Table 1. Estimates of national debt, interest outlays and interest rates, United States, 2020–2030 (billions of USD).

Year	National debt	Debt/GDP	Net interest outlays	Treasury bill (3 mo) Short term <i>i</i>	Treasury note (10 yr) Long term <i>i</i>
2020 ^a	21,019	100.1	345	0.74	1.13
2021	22,461	102.3	303	0.16	0.83
2022	23,541	102.0	282	0.16	1.06
2023	24,547	102.0	278	0.16	1.30
2024	25,488	101.4	284	0.17	1.56
2025	26,559	101.2	306	0.19	1.83
2026	27,596	100.9	361	0.29	2.16
2027	28,702	101.0	435	0.52	2.49
2028	30,162	102.2	516	0.96	2.76
2029	31,593	103.2	597	1.46	2.97
2030	33,331	105.0	695	1.96	3.15

^aactual.

Source: CBO (2020).

At the end of 2020, the US national debt owed to the public is estimated to be approximately US\$ 21 trillion. The data in this paragraph is employing material from table A. The size of both household and non-profits assets was US\$ 137.801 trillion; the assets of non-financial, non-corporate firms was US\$ 21.892 trillion; non-financial corporations' assets were US\$ 47.138 trillion and assets of the domestic financial sector was US\$ 115.367 trillion. In all, privately held assets amounted to US\$ 322.199 trillion. Under these conditions, what is the capital or wealth tax? Let us assume the interest rate is 2%. $iD = tK$ implies $2\% \times \text{US\$ 21 trillion (debt)} = t \times \text{US\$ 322.199 trillion (assets)}$, so that t is 0.001304% or 0.1304%. A less than 1/4 percentage point tax on assets will generate revenue of $0.001304 \times \text{US\$ 322.199 trillion} = \text{US\$ 420.147 billion}$, which is greater than the projected net interest outlay of US\$ 345 billion. This is promising. However, interest rates fluctuate. To help ensure the tax generates an excess over interest outlays, the calculation could utilise the largest forecasted interest rate over the time-period. Using the top-end of the 10-year treasury note, 3.15%, means in our previous example the wealth tax becomes 0.2053% and generates revenue of US\$ 661.5 billion. US\$ 316.5 billion remains after subtracting the net interest outlay. If private assets do not grow, t starts at 0.002053 and gradually rises to 0.003256 in 2030 (see Table 2).

However, private assets grow and tend to grow faster than the national debt. The national debt held by the public is estimated to grow approximately 58.4% between 2020 and 2030, whereas private assets are estimated to grow nearly 78.9%. If we recognise this growth, the wealth tax declines over this period, 0.002053–0.001820 (see Table B in the Online Supplementary File). If debt and assets grew similarly the tax rate is stable, or changes with the interest rate. If the interest rate is stable, the wealth tax becomes less of a burden if assets grow faster than the growth of the national debt.

Because of the variability in the wealth tax, the suggestion here is to select the highest tax rate over the forecast period for use. In the above example, the highest observation of

Table 2. Wealth tax calculation United States private assets (no growth), 2020–2030.

Year	Interest rate	National debt (trillions)	Private assets (trillions)	Wealth tax rate	Tax revenue (trillions)
2020	0.0315	21.0	322.199	0.002053	0.66150
2021	0.0315	22.5	322.199	0.002200	0.70875
2022	0.0315	23.5	322.199	0.002297	0.74025
2023	0.0315	24.5	322.199	0.002395	0.77175
2024	0.0315	25.5	322.199	0.002493	0.80325
2025	0.0315	26.6	322.199	0.002601	0.83790
2026	0.0315	27.6	322.199	0.002698	0.86940
2027	0.0315	28.7	322.199	0.002806	0.90405
2028	0.0315	30.1	322.199	0.002943	0.94815
2029	0.0315	31.2	322.199	0.003050	0.98280
2030	0.0315	33.3	322.199	0.003256	1.04895

Source: Author's calculations.

the tax is 0.21%. The annual revenues from this tax are consistently higher than the expected net interest outlays, which means there is a consistent surplus to allocate to, say, slow the growth of new borrowing and contribute to green initiatives of a GND. The tax can be reviewed every 3–4 years for adjustment based upon revised forecasts. A periodic revision will facilitate adjustments if unanticipated events influence revenues; the initial example with 2020 data suggests the US\$ 420 billion of revenues would be approximately 10%–11% of the total federal tax take.

What happens when we add the resources cost for the green initiatives of the GND? As discussed in the previous section, the average annual increase in expenditures for this component is US\$ 1.1 trillion per year. If we continue to assume the interest rate (LT) over this period is 3.15%, the capital tax ranges between 0.2177% in 2021 and 0.1880% in 2030. If we adopt the highest tax in this period, 0.22%, the revenues over the 10-year period are US\$ 9.898 trillion, which is greater than the anticipated net interest outlays of US\$ 4.057 trillion. (see Table 3).

It is difficult to say exactly how the debt-GDP ratio will behave. While the national debt will increase, the multiplier effect on public expenditure will positively influence GDP. A multiplier effect of 1.5, for instance, implies that GDP (as per CBO (2020) projections of GDP¹) will increase by US\$ 1.65 trillion annually (US\$ 1.1 trillion x 1.5) from this influence. The debt-GDP ratio hovers between 99.0 and 103.1, improving upon the CBO's estimated range of 100.9 – 105.0 (without a GND). US\$ 5.841 trillion remains after accounting for net interest outlays. US\$ 2.5 trillion (US\$ 250 billion per year) could be directed to slow the growth of new borrowing, lowering the range for debt-GDP further, and keep austerity programmes at bay. The remaining US\$ 3.341 trillion would be directed towards green initiatives – paying entirely for Biden's de-carbonisation policy with US\$ 1.441 trillion left. Note that a shortfall of approximately US\$ 7.659 trillion remains for the green projects.

Table 3. Wealth tax calculation with green programmes, United States, private assets (grow at 5.99%/year), 2020–2030.

Year	Interest rate	National debt (trillions)	Private assets (trillions)	Wealth tax rate	Tax revenue (trillions)	Revenue if $t = 0.22\%$
2020	0.0315	21	322.1990	0.002053	0.66150	
2021	0.0315	23.6	341.4987	0.002177	0.74340	0.751297
2022	0.0315	24.6	361.9545	0.002141	0.77490	0.796300
2023	0.0315	25.6	383.6356	0.002102	0.80640	0.843998
2024	0.0315	26.6	406.6153	0.002061	0.83790	0.894554
2025	0.0315	27.7	430.9716	0.002025	0.87255	0.948138
2026	0.0315	28.7	456.7868	0.001979	0.90405	1.004931
2027	0.0315	29.8	484.1483	0.001939	0.93870	1.065126
2028	0.0315	31.2	513.1488	0.001915	0.98280	1.128927
2029	0.0315	32.3	543.8864	0.001871	1.01745	1.196550
2030	0.0315	34.4	576.4652	0.001880	1.08360	1.268223

Source: Author's calculations.

This shortfall is not daunting when one recognises that the Kaleckian tax is meant to be an equitable way to achieve sustainability, and not meant to reverse wealth inequality. At this point, Warren's tax on ultra-wealth holders could be introduced to yield additional US\$ 3.75 trillion *and* reverse inequality. The remaining funds for green initiatives could come from, say, the savings to be had from implementing a Medicare-for-all programme as it frees resources from the administrative costs of healthcare and insurance plans, and controlling pharmaceutical prices under the current system. Those savings are estimated by Nersisyan and Wray (2019) to be 3.7% of GDP or approximately US\$ 11 trillion over the 10 next years. Remaining funds could come, instead, from a carbon tax, financial transactions tax and/or income tax. The point is that resources are available to initiate an ecological transition. The Kaleckian tax could be an equitable first step for locating funds to keep austerity programmes at bay and initial funds for Biden's de-carbonisation plan.

At present, several economies are experiencing negative interest rates, and forecasts for the next 10 years are difficult to ascertain. A suggestion here is to set tax on private assets at a rate which at least covers the largest annual interest outlay in the forecast window with an increase to avoid shortfalls and garner funds for initiatives. Working with data from the United States, the net interest outlay divided by the private assets yields a range for the wealth tax of 0.000740–0.001386. If the tax was rounded to 0.15%, revenues are not only consistently greater than net interest outlays but also generate a revenue of US\$ 6.749 trillion over the 2021–2030 period (see Table C in the Online Supplementary File). The Kaleckian formula is a good start and can help guide the tax calculation under more severe circumstances.

An advantage of a wealth tax is there is no distinction between wealth that has been inherited, attained from personal effort and savings, obtained by luck or simply increased asset values (OECD, 2018: 51). A capital income tax, on the other hand, focusses only on those assets that generate a rate of return. A wealth tax can be applied to immovable and moveable assets and financial investments. Assets that do not

generate an annual rate of return, such as artwork, are liable for the wealth tax; note, while artwork does not generate an explicit stream of returns it appreciates in price over time. A wealth tax also has the advantage of being more stable in its ability to generate revenue over volatile economic conditions. Rates of return on assets can fall during a downturn, and so the tax return generated from a capital income tax also falls to zero. A wealth tax, however, can generate revenue so long as assets' values remain positive (OECD, 2018: 49).

Relevance and feasibility of a Kaleckian wealth tax

Given Kalecki's vision for a wealth tax was expressed some time ago, does it hold relevance for how the world has changed over the last 30 years? A key driver of wealth inequality has been financialisation, the increased reliance on financial activities for some form of income. With respect to firms, liberalisation of trade and capital flows enabled producers in the United States and elsewhere to outsource production overseas. The strategy allowed US non-financial corporations, for instance, to increase profits and profit share. However, this did not lead to strong growth in domestic reinvestment in plant and equipment. Rather, investment in financial assets increased, as has the payment of dividends, stock buybacks and, mergers and acquisitions (Assa, 2016; Milberg and Winkler, 2009; Palley, 2013). Stockhammer (2004), Assa (2012), Hein et al. (2017) have noted similar developments within OECD countries.

Financialisation is typically proxied by the contribution of finance, insurance, and real estate activities to GDP (value-added basis). Table 4 illustrates the trends of financialisation for OECD countries using the OECD National Accounts database. Financialisation in the OECD countries has, in general, increased since 1995.

Wealth distribution reflects the influence of financialisation, at least in part. Table 5 illustrates the recent observations of the share of (net) wealth owned by the top 5% and by the bottom 60% of households. The difference between the two is striking. The United States' wealth distribution is the most severe – where the top 5% own over 68% of wealth and the bottom 60% owns a mere 2.4%. Germany (46.3% vs 6.5%, respectively), Austria (43.5% vs 8%) and Ireland (37.7% and 7.2%) are not far behind.

Piketty (2014) notes the importance of the relationship between income and wealth inequality. Wealth inequality is exacerbated by income inequality as wealthy individuals derive income through the returns from the capital or wealth they own. Zorn and Pressman (2020) provided a theoretical explanation, based on Kalecki's work, for the phenomenon documented by Piketty. In a closed economy, if capitalists save all their income and invest it, economic growth equals the rate of return on capital. Any spending by capitalists out of saving implies economic growth becomes less than the rate of return. The more capitalists spend the more growth stagnates and inequality accelerates. It can be expressed in the following way (notation after Zorn and Pressman (2020)):

Savings by capitalists (S) is equal to some rate of savings (s) from profits (P):

$$S = sP$$

Table 4. Financial services as a % of GDP (value-added), 1995 to 2018, selected OECD countries.^a

OECD country	1995	2018
Australia	18.6	21.1
Austria	14.2	15.3
Belgium	15.7	15.5
Denmark	15.7	16.6
Estonia	13.8	15.8
Finland	13.5	16.6
France	16.2	18.6
Germany (a)	16.9	16.2
Greece (a)	15.8	21.6
Hungary	12.6	12.4
Ireland	15.5	17.6
Italy (b)	14.6	19.4
Japan	14.9	15.6
Latvia	9.9	16.1
Luxemburg	33.7	33.5
Netherlands	15.9	15.5
New Zealand (a)	18.0	21.4
Norway (a)	8.9	11.4
Poland	8.3	9.1
Portugal (a)	14.3	18.1
Slovak Republic	21.4	14.0
Slovenia	13.3	11.5
Spain (a)	10.6	16.2
UK (b)	21.5	22.2
USA (a, c)	19.5	21.5

OECD: Organisation for Economic Co-operation and Development.

Source: OECD National Accounts database

(a)The most recent year of data is 2017.

(b)The most recent year of data is 2016.

(c)Starting year is 1997.

(d)Starting year is 1998.

^aOECD data are not complete or available for all countries.

Investment is made from capitalists' savings:

$$I = sP (= S)$$

This implies that profit is equal to investment divided by the rate of saving:

$$I = sP (= S)$$

Table 5. Distribution of wealth shares for top 5% versus bottom 60%, selected OECD countries.

OECD country	Share of wealth	
	Top 5%	Bottom 60%
Australia	33.5 (2014)	16.5
Austria	43.5 (2014)	8
Belgium	29.5 (2014)	19
Denmark	47.3 (2015)	n/a
Estonia	43.2 (2013)	12.8
Finland	31.4 (2013)	13.6
France	37.3 (2014)	12.1
Germany	46.3 (2014)	6.5
Greece	28.8 (2014)	17.9
Hungary	35.6 (2014)	15.5
Ireland	37.7 (2014)	7.2
Italy	29.7 (2014)	17.3
Japan	27.7 (2014)	17.8
Latvia	49.1 (2014)	7.1
Luxemburg	36.3 (2014)	15.3
Netherlands	52.7 (2015)	n/a
New Zealand	39.7 (2014)	12.3
Norway	37.9 (2015)	7.3
Poland	29.0 (2014)	18.3
Portugal	36.5 (2013)	12.4
Slovak Republic	23.0 (2014)	25.9
Slovenia	37.9 (2014)	17.3
Spain	33.7 (2012)	18.7
UK	38.0 (2015)	11.8
USA	68.1 (2016)	2.4

OECD: Organisation for Economic Co-operation and Development.

Year of observations in parentheses.

Source: OECD Wealth and Distribution Database.

The rate of profit (r) is determined by dividing through by capital stock (K):

$$r = P/K = (I/K)(1/s),$$

and I/K is the pace of capital accumulation (g):

$$r = g(1/s)$$

Piketty observed $r > g$. This can be attributed, as per Zorn and Pressman, to capitalists not saving all their income, that is, they spend some of it. $r > g$ because of that expenditure. The less they save the more sluggish (and unequal) the economy becomes. Zorn and

Pressman do not mention an explicit role for public investment, nor government expenditure on goods and services. This scenario is akin to a balanced budget so that profits (net of taxes) is equivalent to capitalist investment and consumption. If the budget is in deficit, say, to support the creation of jobs, the private sector receives more from the government than it pays in taxes. In this context profit is no longer negligible of taxes, and one should consider how the budget's position may influence profits. The first effect is an increase in employment, enabling profit to increase beyond the level determined by private investment and capitalists' consumption. (New public expenditure has taken place without a reduction in spending elsewhere.) As expected returns increase, the inducement to invest is not only not compromised but will be stronger than before the introduction of the wealth tax. The inducement to consume by workers is also strengthened because of the increase in employment (Kalecki, 1971 [1937]). Of course, 'the counterpart to the budget deficit is the increase in indebtedness of the government towards the private sector', (Kalecki, 1968: 48–52).

If the economy grows in a context where all wages are spent and all profits are invested (capitalists save), the rate of profit (r) is equal to the pace of capital accumulation (g). Assume that the economy grows, but there is a chronic budget deficit. The deficit leads to an increase in debt, and debt accumulates at the same pace as capital. Competition will ensure that the interest rate on government bonds (i) equals the profit rate, and hence, growth of capital: $i = g = r$. The interest on debt is equal to the growth of debt: $iD = gD$. The deficit can be financed by borrowing, and the wealth tax pays the interest rate. If everything grows apace, the situation can continue indefinitely (Nell, 1988: 247). The incorporation of Zorn and Pressman's insights on Piketty suggests if capitalists' savings fell, exacerbating inequality, then $tK < iD$ and t must rise to maintain the ability to generate revenue to cover the interest on debt. Financialisation acts akin to capitalists' spending out of savings. Capital accumulation and growth slowed, and inequality increased. Kalecki's ideas and design of a wealth tax are more relevant today than ever.

The distribution of assets across the sectors suggests, initially, the burden of tax falls on households. The share of assets owned by households and non-profits is 42.8% (down from 46.0% in 1990); the share for households only is 41.5%. The assets of non-financial, non-corporate firms is 6.8% (vs 8.0% in 1990), whereas non-financial corporations' share of assets is 14.6% (down from 18.0% in 1990). The domestic financial sector grew to 35.8% from 28.0% in 1990. The shift in shares is attributed to whether each sector's assets grew more or less quickly than the growth for all assets, which was 472.8% or an annual average of 5.99%, between 1990 and 2020. The assets of households and non-profits grew 432% (5.73% average, annual growth), the assets of non-financial, non-corporate firms grew 386.6% (5.41% average, annual growth); for non-financial corporations assets grew 366.7% (5.3% average, annual growth); and the assets of the domestic financial sector grew 632.6% (6.9% average, annual growth). At first glance, it seems a bit odd that the asset growth of households and non-profits grew faster than non-financial firms (non-corporate and corporate). However, one needs to consider the evidence on profit shifting and wealth accumulation overseas, as constructed by Gabriel Zucman and his colleagues. Saez and Zucman (2020) estimate that nearly 60% of profits made by US multinationals are parked in low-tax countries, mainly Ireland and Bermuda. Moreover, the overseas assets of households are likely to be underreported; Zucman

(2013) estimated that 8% of global financial wealth of households is not reported, a figure that does not include overseas real estate holdings. The asset growth rates in certain sectors are likely to be sluggish because of the influence of underreporting.

With respect to households, the growth of assets for the bottom 50% of households, according to wealth deciles, was 302.9% (average, annual growth 4.80%). At the end of 2020, assets for this group amounted to US\$ 7.59 trillion, for a share of 5.95% of total household assets (US\$ 138.99 trillion). The assets of the next 40% wealth percentiles grew 345% (average, annual growth 5.10%) to US\$ 41.93 trillion, or 30.1% of total assets. The assets of the top 90% – 99% grew 491.5% (average, annual growth 6.10%) to US\$ 50.22 trillion, or 36.1% of total assets. Finally, the top 1% saw their assets grow 762.6% (average, annual growth 7.00%) to US\$ 39.36 trillion, or 28.3% of total assets. In 2020, the top 1% of households controlled nearly 30% of total household assets; and, together, the top 10% of households controlled nearly 65%. (Source of data is the Assets Breakdown Dataset from the Federal Reserve, St Louis.)²

A recent OECD study finds the top 20% of personal wealth holders have the highest concentration of financial assets as a portion of their holdings (OECD, 2018: 51, Figure 2.6). High wealth holders often hold multiple housing properties, mainly for investment purposes, and are likely to have self-employed businesses. With respect to non-financial assets, the primary residence is the key holding for the mid-range of households. Those with less wealth are more likely not to own a home. Their real assets will be comprised of vehicles and household effects and valuables. These features influence the resilience of households in times of severe downturns. The poorest deciles of households of OECD countries can weather 2–12 months of unemployment (no income) with savings and other liquid assets, whereas the highest deciles can weather years (Bank for International Settlements (BIS), 2020).

The state of inequality suggests thresholds and exemptions need to be considered in the final design. For instance, if the wealth associated with home ownership were removed from the stock of assets, how would the tax be affected? Owner-occupied dwellings for the US were an estimated US\$ 31.095 trillion in 2020. If this entire amount were deducted from total private assets for 2020, private assets in the tax calculation becomes US\$ 291.104 trillion and the wealth tax increases to 0.2272% from 0.2053% (national debt = 21 trillion and the interest rate = 3.15%). As a result, the share of households (and non-profits) assets becomes smaller than the domestic financial sector, 36.6% vs 39.6%, so the latter now bears the burden of the tax.

Under today's global economic climate, it would be advantageous to stagger the implementation of the tax so that the top tiers of wealth holders are addressed first before shifting towards those with less wealth. This would enable those with less wealth to recover more fully from the pandemic before being asked to contribute. A threshold could be implemented on the size of asset holdings to attain before the tax comes into effect. In addition to an exemption on primary residences below some threshold, exemptions could also be made for household effects, working tools, and transportation vehicles of the poor. As far as implementing the tax, it could be deducted from income prior to the determination of income tax.

The OECD recently recommended a wealth tax entail a low rate, be progressive, have limited exemptions (such as, exemptions for personal and household effects to a certain

limit), use market-determined valuations (updated every few years), allow payments to be made in instalments, enhance transparency, develop third-party reporting, create tax treaties to avoid international double taxation and monitor the effectiveness of the tax (OECD, 2018: 94). The Kaleckian wealth tax exhibits a number of these features. It is low (less than 1/2% on gross assets). It is progressive by weighing more heavily on those with large wealth holdings. It can accommodate exemptions for primary residences and their contents. It can employ market-determined valuations. Information sharing, enhanced transparency, tax treaties, third-party reporting are feasible and headway in some of these areas is already underway. The construction of comparable national wealth figures across countries will need to be addressed, however. There would need to be a mechanism to periodically update asset values. The state of information technology and its rapid development could support the development of this mechanism.

The effectiveness of the tax depends on several factors. Effectiveness, for instance, would be reduced if the tax triggered tax avoidance and capital flight. This issue is not of much concern to working- and middle-class individuals as much of their income consists of wages, pension, and investment income. Information about these sources of income is regularly reported to the Internal Revenue Service (IRS) and severely limits tax dodging (Saez and Zucman, 2020: 61). The elite, however, dodge taxes with the assistance of the tax-planning industry and the use of tax shelters, particularly in overseas tax havens. Saez and Zucman (2020) suggest there are probably millions of tax shelters in existence, which creates a layer of financial opacity which challenges tax authorities, regulators, and investigators' ability to penetrate. Google, for instance, shifted its intellectual property to Bermuda, a known tax haven, by selling it to a shell company called Google Holdings. Moreover, assets and services, such as 'logos, trademarks and management services often do not have an observable market value, (Saez and Zucman, 2020: 74). Zucman (2014) has suggested the creation of a World Financial Registry to promote transparency in reporting assets and income by individuals, and an establishment of global cooperation to pressure tax havens to relinquish illegal activities. The IRS has managed to require foreign banks transmission of data and set a template for international cooperation. Advances made on information sharing and transparency between countries – such as Automatic Exchange of Information, Exchange of Information on Requests and information exchange agreements – make it more difficult to avoid taxes through relocation of assets (OECD, 2018: 67). Accountancy firms, such as PricewaterhouseCoopers, Deloitte, Ernst and Young and KPMG record transactions, suggesting that data reported to the IRS need to be expanded to include these firms to enhance the effectiveness of a wealth tax. The creation of multilateral rather than bilateral tax treaties could also facilitate taxation of overseas assets, above a threshold, by the home country of the wealth holder. Forensic accountants can be employed by the government to monitor for shifts and accuracy of information.

A wealth tax's effectiveness also depends on how the tax interacts with other types of taxes, for instance, capital income tax. This interaction is often referred to as 'stacking'. A capital income tax is levied on the returns of assets. Examples of capital income taxes include corporate income taxes and personal capital incomes taxes (rents, dividends, interest and capital gains). Wealth and capital income taxes can be interdependent. Increasing a capital income tax, for instance, means the discounted stream of returns

from an asset will decline. As values of assets declines, wealth declines as do revenues from the collection of a wealth tax. The logic also leads to the idea that imposing wealth tax, or raising one in existence, leads to a reduction in wealth. This concern can be allayed when one recognises, as earlier noted, that the growth rate of assets more than compensates for the wealth tax. The Kaleckian wealth tax simply reduces the growth of assets and does not deplete the asset base. Interaction of wealth taxes with other taxes are somewhat inconclusive, and need additional research (OECD, 2018: 62–63). Reasons for inconclusiveness are due to differences in tax systems across countries. For instance, countries could implement wealth taxes at the national or local level. Taxes on primary residences are sometimes conducted at the local level where the resulting revenues are used to support school systems.

Another concern regarding effectiveness is whether wealth taxes could stymie entrepreneurship and new investment. The breadth of the tax base would ensure that all wealth holders are treated fairly, and thus, not influence investment. However, a wealth tax could be perceived as inequitable because it is invariable to changes in rate of return. The following is an example used by the OECD to compare capital income taxes and wealth taxes. Suppose there are two investors with (net) wealth of EUR 10 million. One invests his wealth for a rate of return of 4% (EUR 400,000). If capital income tax is 30%, the tax liability for this investor is EUR 120,000. The other investor would have the same tax liability if subjected to a 1.2% wealth tax. His assets could well yield 4%, too. But the tax is imposed irrespective of the actual returns on assets. In other words, ‘a net wealth tax implicitly imposes a lower effective tax on the return of high-yield assets compared to low-yield assets’ (OECD, 2018: 49). If the rate of return on investment for the first investor increases to 5%, the tax liability for the first investor increases to EUR 150,000, while the tax liability for the second remains the same. What is not accounted for in this example is the tendency for assets to appreciate in price. As noted earlier, the financialisation process has reinforced the tendency for asset prices to increase. A wealth tax will capture that and narrow the difference in tax liabilities and could even reverse who bears the heavier liability.

Conclusion

GNDs are an important step forward for an ecological transition and can improve the lives of millions by stabilising and improving, incomes and social outcomes. Financing will be a challenge in a climate where fiscal expenditures have strongly increased with the Covid-19 pandemic. This note raised the prospect of a Kaleckian wealth tax, a formulation which has been dormant within the post-Keynesian school of thought. As a wealth tax it will reach a wide base. It is equitable as everyone is asked to contribute – households, non-financial, non-corporate firms, non-financial corporations and the entities that comprise the financial sectors. However, wealth inequality being so severe, particularly in the United States, a threshold for lower wealth deciles should be established to exempt primary residences and household effects. As the Kaleckian tax focusses on gross, not net, wealth it would reach the top deciles of private wealth holders and financial firms, who control a substantial portion of financial assets and real estate, without allowing debt to be used to lower their tax burdens.

The tax also creates a disincentive for further development of the phenomenon known as financialisation, the reliance of financial activities as sources of income. Capitalists' (and workers') savings find their way into speculative or unproductive investments. Taxing the stock of accumulated investment in speculative activities reduces the incentive to participate in these activities by softening the growth of assets.

Sustainability is also a key feature since rising national debt burdens incurred because of the pandemic threaten the implementation of a GND and, worse, the imposition of self-defeating austerity programmes. Generating sustainability by focussing on the relationship between the growth of national debt and the growth of private assets, could not only protect sovereign credit ratings and access to capital markets, but also free the government from the constraints of balancing its budget to enhance economic growth (which is counterproductive to reversing climate change).

There may be initial data issues since valuations of assets need to be conducted. To enhance its effectiveness, there needs to be a concerted, global effort to locate overseas assets for reporting to relevant tax authorities. The upshot is that the size of wealth is so massive that only a small fraction of a percent is needed to generate sustainable financing of national debt AND for locating funds to support green projects, if not a GND in its entirety. The question is whether high wealth individuals begrudge others and the environment of the benefits of addressing climate change.

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Notes

1. The CBO's projections for GDP were obtained by dividing each observation of projected debt series by the corresponding projection for debt/GDP. In other words, $\text{debt}/(\text{debt}/\text{GDP}) = \text{GDP}$.
2. Specifically, the Federal Reserve's Distributional Financial Accounts section of FRED which is housed at the St Louis Fed (Federal Reserve Bank of St Louis, 2021).

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