

# How would a progressive wealth tax work?

## Evidence from the economics literature<sup>1</sup>

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Senator Elizabeth Warren recently proposed a [new wealth tax](#) on the richest Americans. Though the United States does not have a wealth tax, a number of countries around the world have or had progressive wealth taxes. In this paper, we discuss the merits and demerits of progressive wealth taxation in light of the international experience and economic theory. In short, a progressive wealth tax focused on the ultra-wealthy (households with more than \$50 million in net wealth) could raise substantial revenues and the economic incidence of the tax would lie overwhelmingly on the richest families. After defining what a progressive wealth tax is, in section 2 we discuss issues of tax avoidance and evasion; in section 3 we discuss the real effects of wealth taxation on the economy; and in section 4 we make concrete proposals to administer a progressive wealth tax effectively in the United States.

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<sup>1</sup> We thank Greg Leiserson for very helpful comments and discussions.

## 1. What is a wealth tax?

A wealth tax is an annual tax levied on all of net wealth (financial plus non-financial assets minus debts) above an exemption threshold. Wealth taxes are typically very progressive, because net wealth is highly concentrated (much more than income, due to the cumulative and multiplicative processes that govern wealth accumulation). Wealth taxes are more progressive than property taxes, because property taxes are only levied on real estate, which is much more equitably distributed than net wealth. Wealth taxes also more closely track ability to pay than property taxes because they allow people to deduct debts.<sup>2</sup>

The progressivity of a wealth tax depends on how high the exemption threshold is and on whether a graduated rate schedule is applied among taxpayers.<sup>3</sup> The wealth tax recently proposed by Senator Warren is particularly progressive because it has a high exemption level of \$50 million and would thus affect less than 0.1% of U.S. households. Ranked by wealth, only the wealthiest would pay the tax. Ranked by income, the top 0.1% of tax units would pay 95% of the tax and the top 1% would pay 97%. For

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<sup>2</sup> Property taxes on real estate are typically assessed on the gross value of the property with no deductions for mortgage debt.

<sup>3</sup> See Landais, Camille, Thomas Piketty, and Emmanuel Saez *Pour une révolution fiscale: Un impôt sur le revenu pour le xx<sup>e</sup> siècle*. Paris: Le Seuil, 2011 for an analysis of the progressivity of the French wealth tax in the overall French tax system in 2010.

comparison, 60% of the tax cuts in the Tax Cuts and Jobs Act of 2018 accrue to the top 0.1% higher earners (in year 2027).<sup>4</sup>

Among countries that have a wealth tax, revenues collected range from modest (about 0.2% of GDP in Spain and France) to significant (about 1% of GDP in Switzerland).<sup>5</sup> We have [estimated](#) that the Warren wealth tax would raise about 1% of GDP, about as much as in Switzerland, in spite of its high exemption level (\$50 million). This is because wealth is much more concentrated in the United States than in Switzerland<sup>6</sup> and because the proposed tax base does not exempt any asset class.

## 2. Tax avoidance and tax evasion

As with any tax, a concern with wealth taxation is tax avoidance and evasion. Rich taxpayers might minimize their reported wealth, hide their wealth abroad, or expatriate.

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<sup>4</sup> See Table 3 in [Tax Policy Center, 2017 "Distributional Analysis of the Conference Agreement for the Tax Cuts and Jobs Act."](#)

<sup>5</sup> See OECD, *The Role and Design of Net Wealth Taxes in the OECD*, 2018.

<sup>6</sup> See Alvaredo, Facundo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2018. *The World Inequality Report 2018*, Cambridge: [Harvard University Press](#), <http://wir2018.wid.world/> for a comprehensive review of wealth inequality trends and levels across the world.

## 2.1. Wealth tax avoidance: lessons from international experience

A natural starting point to think about tax avoidance is the experience of the many countries that implement or have implemented a wealth tax. Four of these countries have been studied recently in the academic literature: Sweden, Denmark, Colombia, and Switzerland. In Sweden and Denmark, two countries with extensive third-party reporting of wealth, Seim and Jakobsen et al. find small avoidance and evasion responses: a 1% wealth tax reduces reported wealth by less than 1%.<sup>7</sup> In Colombia, where enforcement is not as strong, Londono-Vélez and Avila find medium-size avoidance/evasion responses: a 1% wealth tax reduces reported wealth by about 2-3%.<sup>8</sup> In Switzerland, where there is no third-party reporting of financial wealth (due to bank secrecy), Brülhart et al. find very large responses to wealth taxation: a 1% wealth tax lowers reported wealth by 23-34%.<sup>9</sup> Our scoring of Senator

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<sup>7</sup> Seim, David. 2017. "Behavioral Responses to an Annual Wealth Tax: Evidence from Sweden", *American Economic Journal: Economic Policy*, 9(4), 395-421 and Jakobsen, Kristian, Katrine Jakobsen, Henrik Kleven and Gabriel Zucman. 2018. "Wealth Accumulation and Wealth Taxation: Theory and Evidence from Denmark" NBER working paper No. 24371.

<sup>8</sup> Londono-Velez, Juliana and Javier Avila. "Can Wealth Taxation Work in Developing Countries? Quasi-Experimental Evidence from Colombia", UC Berkeley working paper, 2018.

<sup>9</sup> Brülhart, Marius, Jonathan Gruber, Matthias Krapf, and Kurt Schmidheiny. 2016. "Taxing Wealth: Evidence from Switzerland," NBER working paper No. 22376. This extremely large estimate is extrapolated from very small variations in wealth tax rates over time and across Swiss cantons and hence is not as compellingly identified as the other estimates based on large variations in the wealth tax rate.

Warren's wealth tax proposal takes the average of these four studies, which leads to a 15% tax avoidance/evasion response to a 2% wealth tax.<sup>10</sup>

Beyond these four cases, a key lesson from the international experience with wealth taxation is that for such a tax to work well, it needs to have a comprehensive base that includes all asset classes. The greatest risk to enforcement comes from base erosion due to the exemption of specific assets, such as business assets and unlisted corporate equity. Exemptions of this kind allow the wealthy to avoid the tax by converting part of their wealth into non-taxable assets. This undermines tax revenue and the horizontal equity of the tax. International experience shows that base erosion tends to occur when specific constituencies (such as business owners) lobby to become exempt.<sup>11</sup> High exemption thresholds make it more difficult for this lobbying to be successful.

## 2.2. Hiding assets abroad

Wealthy individuals can try to hide assets abroad to evade income and wealth taxes. Recent evidence from customer lists leaked from offshore financial institutions matched to administrative wealth tax records (in Scandinavia and Colombia) shows that offshore tax evasion is highly concentrated among the rich.<sup>12</sup> Wealth concealment is a serious enforcement

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<sup>10</sup>  $(2\% \times (0.5 + 0.5 + 2.5 + 28.5)) / 4 = 16\%$ .

<sup>11</sup> See OECD, *The Role and Design of Net Wealth Taxes in the OECD*, 2018.

<sup>12</sup> See Alstadsæter, Annette, Johannesen, Niels, and Gabriel Zucman. 2018 "Tax Evasion and Inequality" forthcoming [American Economic Review](#) for estimates in the case of

concern.<sup>13</sup> However, just like for legal avoidance, illegal evasion depends on policies and can be reduced through proper enforcement. Key to reducing evasion are (i) the collection of comprehensive data; (ii) sanctions for the suppliers of tax evasion services (the countries and financial intermediaries that facilitate it);<sup>14</sup> (iii) proper resources for auditing.

In terms of data collection, the United States has taken an ambitious path forward with the 2010 Foreign Account Tax Compliance Act (FATCA) that requires all foreign financial institutions to identify and report their U.S. customers to the IRS. In terms of auditing, however, IRS resources are declining and would need to be increased—with a focus on the very rich—to make sure the wealth tax is properly enforced.

### 2.3. Expatriation

Another way to avoid taxes is to expatriate. Avoiding taxes in this way is particularly difficult for U.S. citizens because it requires renouncing U.S. citizenship, since U.S. citizens living abroad are liable for U.S. taxes (with credits for foreign taxes paid). The United States also currently has an exit tax

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Scandinavia and Londono-Velez, Juliana and Javier Avila. "Can Wealth Taxation Work in Developing Countries? Quasi-Experimental Evidence from Colombia", UC Berkeley working paper, 2018 for estimates in the case of Colombia.

<sup>13</sup> For evidence on the amount of wealth held in tax havens, see Zucman, Gabriel. 2013. "The Missing Wealth of Nations: Are Europe and the U.S. net Debtors or net Creditors?," Quarterly Journal of Economics. See also Alstadsæter, Annette, Johannesen, Niels, and Gabriel Zucman. 2018 "Who Owns the Wealth in Tax Havens? Macro Evidence and Implications for Global Inequality" Journal of Public Economics.

<sup>14</sup> See Zucman, Gabriel 2015. *The Hidden Wealth of Nations*, University of Chicago Press.

to deter expatriation with over \$2 million in net worth. Individuals renouncing their citizenship are required to pay income tax on all their unrealized capital gains. Building on the existing exit tax, Sen. Warren's proposal would introduce an exit tax of 40% of net worth which would greatly reduce incentives to expatriate for tax reasons.

### **3. Effects on economic activity and inequality**

All economists agree that, to the extent that it would not be entirely avoided, a progressive wealth tax would have real economic effects. Given the sharply progressive nature of the wealth tax, these effects would primarily be distributional. However, from a purely logical perspective it is also possible that a wealth tax would also affect Americans who own less than \$50 million in net wealth. We discuss the theory and evidence below.

#### **3.1. Effect on wealth inequality**

A well-enforced wealth tax would reduce wealth concentration. The reason is simple: if very rich people have to pay a percentage of their wealth in taxes each year, it makes it harder for them to maintain their wealth. Changes in consumption vs. saving decisions can exacerbate this effect: with a wealth tax, wealthy taxpayers may decide to spend more today and save less (this is called the substitution effect: consuming now rather than later becomes relatively cheaper). Changes in consumption vs. saving decisions

could conversely dampen this effect if the wealthy decide to spend less to preserve their wealth (this is called the wealth effect, as the wealth tax reduces the economic resources of the taxpayers).<sup>15</sup> In any case, the wealth of people subject to the tax is expected to rise less fast after the introduction of the wealth tax than before.

This insight is relevant in the U.S. context, given that the three main sources about the distribution of wealth—the Forbes 400 rich list, the survey of consumer finances (SCF), and imputed wealth based on capital income—all show large increases in wealth concentration since the 1980s.<sup>16</sup> If well enforced, wealth taxation would curb the rise in wealth concentration that has taken place in the United States in recent decades.

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<sup>15</sup> See Jakobsen, Kristian, Katrine Jakobsen, Henrik Kleven and Gabriel Zucman. 2018. “Wealth Accumulation and Wealth Taxation: Theory and Evidence from Denmark” NBER working paper No. 24371.

<sup>16</sup> See Zucman, Gabriel. 2019 “Global Wealth Inequality”, Annual Review of Economics 11, 2019 for a survey of the literature. Estimates from estate tax data that infer wealth of living from the decedent population show no increase in wealth concentration since the mid-1980s and would imply that wealth inequality in the US today is as low as in Denmark. In our view, these findings are not realistic and show that wealth reported for estate tax purposes is too low due to tax avoidance (see Section VII.B in Saez, Emmanuel and Gabriel Zucman, “Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data”, Quarterly Journal of Economics 131(2), 2016, 519-578, for a detailed discussion).

### 3.2. Effects on the capital stock

A potential concern with wealth taxation is that by reducing large fortunes, it may reduce the capital stock in the economy—thus lowering the productivity of U.S. workers and their wages.

However, these effects are likely to be minimal in the case of a progressive wealth tax for two reasons. First, the United States is an open economy and a large fraction of U.S. saving is invested abroad while a large fraction of U.S. domestic investment is financed by foreign saving. Therefore, a reduction in U.S. savings does not necessarily translate into a large reduction in the capital stock used in the United States. In the extreme case of a small open economy model, a reduction in U.S. saving has no effect on U.S. investment (it's fully offset by an increase in foreign investments in the United States).

Second, a progressive wealth tax like the one Senator Warren proposed would apply to only the very wealthiest families, less than 0.1 percent of filers. Increased savings from the rest of the population could easily attenuate any reduction in the capital stock. Some of the revenues from a wealth tax could be used to fund infrastructure investment, student loan debt relief, or child care, spending that would tend to increase the U.S. capital stock and middle-class saving. More broadly, when thinking about the future evolution of U.S. national saving and investment, it is important to take into account the dynamic of saving and wealth for the middle-class (defined broadly as the

bottom 90% of families ranked by wealth). In sharp contrast to top wealth, middle class wealth has stagnated since the mid-1980s due primarily to a decline in saving via a surge in debt, particularly mortgage refinancing before the Great Recession and student loans.

A large body of recent academic work in behavioral economics has shown that institutions and non-tax policies can have major effects on middle-class saving.<sup>17</sup> Middle class wealth consists primarily of pensions, housing (net of mortgage debt), consumer credit debt, and student loans. Each of these components have historically been directly affected by government regulations. Government-sponsored 30-year mortgages increased home ownership rates and provided an effective tool to save over a lifetime. Regulations encouraged employer-provided pensions in the post-World War II period. Student loans are affected by public funding for higher education. Changes in government regulations since the 1980s have

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<sup>17</sup> The recent behavioral economics literature has shown compellingly that behavioral nudges such as changing default choices for pension savings, or commitment choices, are much more effective ways to encourage retirement savings than traditional tax incentives exempting returns on pension funds from taxation. Madrian, Brigitte C., and Dennis F. Shea. 2001. "The power of suggestion: Inertia in 401 (k) participation and savings behavior." Quarterly journal of economics 116(4), 1149-1187 showed extremely large effects of default choices on 401(k) pension contributions. Chetty, R., Friedman, J., Leth-Petersen, S., Nielsen, T., and Olsen, T. 2014. "Active vs. passive decisions and crowd-out in retirement savings accounts: Evidence from Denmark." Quarterly Journal of Economics 129:1141–1219 showed that defaults not only change retirement savings but also affect overall savings as individuals do not adjust their non-retirement savings; in contrast exempting returns from taxation, the traditional policy, has minimal effects on overall savings as individuals just shift non-retirement savings into retirement savings. Thaler, Richard H. and Cass R. Sunstein, 2008. Nudge: Improving decisions about health, wealth, and happiness, Yale University Press summarize the literature.

contributed to the decline in middle-class saving. The rise in middle-class debt took place in a context of financial deregulation and decline in the public funding for higher education. The surge in mortgage refinancing before the Great Recession was associated with equity extraction (refinancing into a large mortgage) and amortization extensions (starting a new 30-year mortgage) both of which reduce saving.<sup>18</sup>

### 3.3. Effects on entrepreneurial innovation

A wealth tax would reduce the financial payoff to extreme cases of business success, but would it reduce the socially valuable innovation that can be associated with such success? And would any such reduction exceed the social gains of discouraging extractive wealth accumulation? In our assessment the effect on innovation and productivity is likely to be modest, and if anything slightly positive.

Most of U.S. innovation is done by people who have (much) less than \$50 million in net wealth. To foster innovation, it is key to encourage young—and not yet wealthy—people to become entrepreneurs.<sup>19</sup> Recent work has shown that exposure to innovation during childhood has significant causal

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<sup>18</sup> See Saez, Emmanuel and Gabriel Zucman, “Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data”, *Quarterly Journal of Economics* 131(2), 2016, 519-578 for a detailed description of the evolution of bottom 90% savings and wealth over the last century.

<sup>19</sup> Education policies can play in key role in exposing the young to innovation. Various government policies (such as the Small Business Administration) also facilitate funding to small businesses for non-wealth business owners.

effects on children's propensities to become innovators themselves later in life.<sup>20</sup> A large body of work shows that credit constraints are a key factor slowing down small business growth when the owners lack wealth or funding.<sup>21</sup>

The economics literature suggests that a highly progressive wealth tax could in fact have a positive effect on innovation. Established businesses typically devote a lot of their resources to protect their dominant positions by fighting new competition. A progressive wealth tax hits wealthy owners who have already established their businesses while it does not affect (yet) new emerging businesses.<sup>22</sup> Compared to taxing capital income, taxing wealth also has the advantage that it provides incentives to invest in high-yielding assets, such as start-ups, instead of less productive assets such as

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<sup>20</sup> See Bell, Alex, Raj, Chetty, Xavier Jaravel, Neviana Petkova, and John van Reenen. 2019. "Who Becomes an Inventor in America? The Importance of Exposure to Innovation" forthcoming Quarterly Journal of Economics.

<sup>21</sup> See e.g., Beck, Thorsten, and Asli Demirguc-Kunt. 2006. "Small and medium-size enterprises: Access to finance as a growth constraint." Journal of Banking & finance 30(11), 2931-2943.

<sup>22</sup> Other policies such as anti-trust should also play a major role to level the playing field. Large businesses with diluted ownership can also be anti-competitive (but at least in this case the rents accrue to a large number of middle-class owners rather than a few super wealthy owners). Antitrust was typically thought as a market efficiency policy blind to distributional considerations. In practice, monopoly rents are concentrated at the top of the wealth distribution and therefore the bad distributional consequences of monopoly power are likely more important than the efficiency consequences. The antitrust movement of the early 20<sup>th</sup> century was famously fueled by anger at the Robber Barons.

luxury real estate. A wealth tax could thus have a positive effect on productivity.<sup>23</sup>

A common objection to wealth taxation is that wealth might be tied up in illiquid assets such as a small business and owners might not have enough liquidity to pay the tax. While this is a valid objection for property taxes—that any homeowner, no matter how poor or rich, must pay—it is unlikely to be an issue for wealth taxes with high exemption thresholds, since the very wealthy have access to credit even if most of their assets are illiquid.

### **3.4. Effects on top talent migration**

Would a wealth tax deter the talented from coming to the United States? This issue looms large in the public debate but there is scant empirical evidence on this issue.

Many factors affect the migration of top talent. Top universities and research centers are a key factor to attract and retain talented foreign students. The number of skilled foreign workers is regulated through immigration and visa policies. The United States is currently restricting top talent migration through its immigration policy. In principle, a change in any of these policies could reverse any adverse effect of steeply progressive wealth taxation on immigration in the United States.

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<sup>23</sup> See for instance Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2013 “Rethinking Capital and Wealth Taxation”; Fatih Guvenen, Gueorgui Kambourov, Burhan Kuruscu, Sergio Ocampo-Diaz, and Daphne Chenk. 2017 “Use It or Lose It: Efficiency Gains from Wealth Taxation”.

### 3.5. Family structure

A wealth tax that applies at the unit of the married couple gives incentives for rich people to stay un-married or give wealth to their children.<sup>24</sup> However, the vast majority of very wealthy Americans are married toady, and incentives to divorce or stay un-married can be removed by having a lower exemption thresholds for single individuals than for married couples (say, \$25 million for singles vs. \$50 million for couples).

A progressive wealth tax can also be avoided by giving assets to children. However, gifts trigger gift tax liability and result in a real de-concentration of wealth, thus generating tax revenues while achieving one of the goals of the wealth tax, namely reduce wealth concentration. The wealth of minor children should be added to the wealth of their parents.

### 3.6. Charitable giving

A wealth tax that does not apply to private foundations or public charities could spur an increase in charitable giving among the extremely wealthy. This increase would reflect both an acceleration in the timing of donations that would otherwise have been made later in life and an increase in the overall level of charitable giving. This increase in charitable giving would also reduce wealth concentration. To prevent abuse, foundations used to shelter wealth

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<sup>24</sup> Some countries with wealth taxes (e.g., France) treat cohabiting partners in a non-marital relationship as a single tax unit for wealth tax purposes to avoid couples splitting wealth through divorce.

(i.e., controlled by wealthy individuals and not used for charitable purposes) should be subject to the wealth tax.

#### **4. Enforcing a wealth tax**

The key to successful modern income taxation is information reporting by third parties such as employers and financial institutions. This reporting allows the tax administration to get direct information on most income sources so that self-reporting is reduced to a minimum. The same principle should be followed for the wealth tax. Taxpayers and the IRS would receive information returns from financial institutions showing the value of their assets at the end of the year. For administrative success, it is essential that such third-party reporting covers the widest possible set of assets and debts (just as the income tax is most successfully enforced on the types of income with third-party reporting).<sup>25</sup> A wealth tax also requires policies regarding information reporting, the valuation of assets, the treatment of trusts, among other design considerations. We discuss these below.

##### **4.1. Information reporting**

The most important extension of the current information reporting system would be to require financial institutions to report year-end wealth balances

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<sup>25</sup> See Kleven, Henrik, Martin Knudsen, Claus Kreiner, Soren Pedersen, and Emmanuel Saez "Unwilling or Unable to Cheat? Evidence from a Tax Audit Experiment in Denmark", *Econometrica* 79(3), 2011, 651-692.

to the IRS. In some cases, this could potentially be combined with existing information reporting for capital income payments, while in others it would require new structures. For many types of assets, this information is already stored by third parties (typically financial institutions) so reporting it to the IRS would be straightforward. Information reporting requirements could be readily applied to many types of assets and liabilities including checking and savings accounts, publicly listed stocks, bonds, and mutual funds.

- Interest-bearing assets (deposits, saving accounts, bonds, etc.): information returns 1099-INT already provide information on all interest income. They could also report the outstanding balance. This requirement could be extended to non-interest paying accounts such as zero-interest bank deposits.
- Publicly listed stock: Forms 1099-DIV for dividend income would report the market value of the corresponding stock holdings (and this requirement could be extended to non-dividend paying stock).
- Assets indirectly held through mutual funds: Mutual funds already provide information returns on income earned through mutual funds. It would be easy to add a balance reporting requirement on all mutual funds held by U.S. residents.
- Defined contribution pension assets: The current reporting requirement of individual retirement account balances (form 5498) could be easily extended to all defined contribution plans such as 401(k)s.

- Defined benefits pension assets: Pension distribution forms 1099-R could report whether the distribution is an annuity (so as to be able to compute the value of defined benefits pensions for current pensioners).
- Real estate: local governments have a cadaster of real estate property for the administration of local property taxes. Such property taxes are based on assessed value. In most states, assessed values closely follow market value.
- Vehicles: States already systematically register vehicles (including luxury vehicles such as boats and planes). Such databases could be used to generate assessed values (based on initial value and standard depreciations schedules).
- Mortgage balances: mortgage interest payments are already reported on form 1098. Mortgage debt balances are reported on forms 1098 since tax year 2017.
- Other debt balances: student loans balances could be reported on forms 1098-E (following the model for mortgages). Consumer credit debt is already reported to the credit bureaus and the IRS could require the credit bureaus to provide information returns on outstanding balances.

## 4.2. Valuation

The general principle guiding valuations should be that all assets should be assessed at their prevailing market value. In the majority of the cases, market values are easy to observe by the IRS with proper information reporting. Here we discuss the cases that raise challenges.

### 4.2.1. Valuing closely-held businesses

Rich households sometimes own assets that lack public market values. About 20% of the assets of the top 0.1% are business assets and private (i.e., non-traded) corporate stock for which there is no systematic market valuation.<sup>26</sup>

However, it is possible to draw on the financial system to put market values on many of these assets. Large private businesses (such as Uber) are typically valued on secondary markets and their stock transactions are centrally registered. Making such transactions reportable to the IRS would allow the tax administration to value such stock systematically. More broadly, the financial industry regularly values private businesses (in the context of mergers and acquisition and share issuance). These valuations could be made reportable to the IRS for the purpose of administering a wealth tax and could be used to value assets retrospectively.

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<sup>26</sup> See Saez, Emmanuel and Gabriel Zucman, "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data", Quarterly Journal of Economics 131(2), 2016, 519-578.

For smaller businesses for which no information exists within the financial industry, there already exists a section of the Internal Revenue Code (409A) that values private businesses for the purpose of taxing stock options. These valuations can be perfected based on best international practices. Other countries such as Switzerland have successfully taxed equity in private businesses by using simple formulas based on the book value of business assets and multiples of profits. The IRS already collects data about the assets and profits of private businesses for business and corporate income tax purposes, so it would be straightforward to apply similar formulas in the United States.

#### **4.2.2. Valuing real estate**

Local governments have a cadaster of real estate property for the administration of local property taxes. Such property taxes are based on assessed value. In most states, assessed values closely follow market value.

Commercial websites such as Zillow have also developed systematic methods to estimate real estate values. Therefore, the technology to systematically obtain reliable real estate values exists and these values could be reported systematically to the IRS.

### **4.2.3. Work of art and other valuables**

Valuables such as works of art are often mentioned as assets hard to value. In reality, they are quantitatively small, and they are most often insured, which generates a useable valuation.

### **4.2.4. Valuing defined benefit pension assets**

In the case of defined benefit pensions not yet in payment, the value of assets could be apportioned in proportion to the accrued benefits of each worker using simple formulas based on current salary, tenure, and age. The key requirement is that the total current value of each defined benefit fund should be distributed across beneficiaries.

## **4.3. Wealth held in trusts and other intermediaries**

Some assets are held through intermediaries such as trusts, holding companies, partnerships, etc.<sup>27</sup> Current estate tax enforcement allows taxpayers to claim valuation discounts for assets repackaged into such intermediaries. But this opens the door to widespread avoidance. To prevent avoidance, all the assets of intermediaries should be included in the tax base of their ultimate owner (granter or grantee, in the case of a trust) at their

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<sup>27</sup> Estate tax revenue collected in 2017 from wealthy individuals who died in 2016 was only [\\$20 billion](#). This is only about 0.13% of the \$15 trillion net worth that the top 0.1% wealthiest families owned in 2016. This demonstrates quantitatively that the estate fails to take much of a bite on the wealthiest (in spite of a reasonably high 40% nominal tax rate above the \$5 million exemption threshold, set to increase to \$10 million in 2018). The main factor driving such low tax revenue is tax avoidance. See

market values, without any valuation discount. Formulaic rules can be set to divide the ownership of jointly-held assets for wealth tax purposes.

This is the procedure used for income tax purposes where dividends, realized capital gains, and interest paid by stocks and bonds flow through intermediaries (trusts, partnerships, mutual funds, etc.) to the individual income tax return of the ultimate owner. A third-party reporting of balances paralleling the third-party reporting of income would allow to follow the same procedure for the wealth tax.