

The Psychology of Taxing Capital Income: Evidence from a Survey Experiment on the Realization Rule

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Abstract: The realization rule requires that assets usually must be sold before gains on them are taxed and thus makes taxing capital income much harder. We conduct the first survey experiment to understand public attitudes about the realization rule. We have three main findings. First, respondents strongly prefer to wait to tax gains on stocks until sale: 75% to 25%. But the flip side is that there is surprisingly strong support for taxing gains on assets at sale or transfer, including at death, in areas where current law never taxes those gains. Second, these stated views change only modestly when randomized participants observe a policy debate composed of videos explaining both the pros and cons of taxing before sale, though the pro and con treatments have large effects individually. And, third, among many possible explanations of these attitudes, we find particular evidence for three: mental accounting; status quo effects; and a desire to tax consumption, not income.

I. Introduction

Though Mark Zuckerberg’s wealth has increased by tens of billions of dollars over the past couple of decades, he has paid relatively little income tax (Eisinger et al. 2021). The primary reason is a central tenet of income tax law: the realization rule. The income tax’s use of a realization rule means that increases in the value of property—like stocks or a house—are not taxed until those gains are “realized” when the owner sells or otherwise disposes of the property. Until such a realization event, therefore, Zuckerberg owes no tax on the appreciation of his Facebook shares, even as other wealthy individuals pay high taxes. When this effect is multiplied across the U.S. economy, trillions of dollars of appreciation go untaxed for years or escape taxation altogether (Batchelder and Kamin 2019).

Whether the realization rule—used nearly universally in income taxes around the world—

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is good policy is debatable. The rule solves otherwise difficult valuation problems, ameliorates liquidity issues, and is arguably more administrable than any alternative. On the other hand, the rule reduces tax revenue, is regressive (compared to statutory rates), favors some forms of capital (e.g., stocks, real estate) over others (e.g., bonds), locks in owners into existing portfolios with unrealized gains, and still requires complex rules to avoid taxpayers abusing it.

Either way, the realization rule is top of mind for policymakers. In October 2021, a bill to tax unsold gains as income for the richest Americans appeared (briefly) to be on track to be enacted (Weisman 2021). Likewise, the White House (2022) and states (Calvey 2020; Vielkind 2021) have also proposed policies taxing unsold gains. This makes it useful to know what the public thinks. But, despite the centrality of the realization rule to tax law and its current policy relevance, we have little empirical evidence on what the public actually thinks about taxing unsold gains and the realization rule, much less why they have those attitudes. This lack of basic information is especially significant because some have hypothesized that the main reason that the realization rule exists are not the policy merits per se but rather public sentiments against taxing so-called “paper gains” (e.g., Schenk 2004). The goal of this project is to help rectify this basic ignorance about the psychology of the realization rule, given its huge implications for the ability of the government to tax capital through an income tax.

Survey experiments are increasingly used in the emerging field of empirical social economics to understand the nature of attitudes that do not readily reveal themselves in market settings (Alesina et al. 2018; Kuziemko et al. 2015; Weinzierl 2017; Liscow and Pershing 2022). They are especially useful where the attitudes of the public may differ considerably from those of certain elites, like tax policy experts, as we suspect to be the case here. In our case, we use a survey experiment to help answer: Are there consistent and widespread attitudes against taxing gains on assets that have not been sold or transferred; how do framings or persuasion treatments change those views; and what seems to underlie those attitudes?

To help answer these questions, we conducted survey experiments with a provider of high-quality, demographically representative samples of Americans. In total, we have about 6,500 respondents. We ask about a variety of assets, but focus on publicly-traded stocks because they are a clear case where valuation and liquidity issues are relatively unimportant. In addition to the main “control” version, we randomly assign some respondents to receive one of seven persuasion treatments. These treatments provide arguments for or against taxing unsold gains to test what arguments, if any, change respondents’ attitudes. We also ask dozens of additional hypotheticals

where we vary the tax policy or factual circumstances. We often pair questions where experts would see the facts as economically identical in both cases, but where respondents may find important differences. Seeing whether respondents' support for taxing unsold gains changes in these questions allows us to gain greater understanding about what explains their attitudes. Finally, we run additional robustness surveys to ensure our results are not sensitive to certain survey design choices.

Our analysis reveals three main findings. First, respondents strongly prefer to wait to tax gains on publicly-traded stocks until sale versus taxing unsold gains each year: 75% to 25%. Though this opposition is strongest among those who are wealthier or own stocks, all demographic groups oppose taxing unsold gains by large margins. This opposition persists and is often strengthened when looking across a variety of other assets and policy framings. For example, surprisingly, even among those who do not own stock, nearly half prefer increasing ordinary tax rates on everyone, including themselves, to a tax on unsold stock gains. We also find similar attitudes concerning unsold gains in the context of property taxation, where a series of popular “tax revolts” (most famously Proposition 13 in California) have targeted taxes on paper gains (Zelinsky 1997). But a flip side is that there is surprisingly strong support in the public for taxing gains on assets at sale or transfer, including at death, in places where current law never taxes those gains.

Second, while attitudes are fairly malleable with targeted persuasion treatments, views change only modestly—from 25% to 30% support—when a randomized set of participants observe a policy debate composed of two videos explaining the pros and cons of taxing gains before sale. Several other randomly assigned treatments—including limiting taxes on unsold gains to only the very rich—also typically garner only modestly more support, even as other tax policies targeted at the rich elicited broad support. Even for our most persuasive treatments, where we do find large changes in attitudes, a considerable majority opposes taxing unsold gains.

Third, we explore possible explanations of these attitudes, and find the most evidence for three. First, in their everyday lives, people widely use “mental accounting” heuristics, under which they react differently to unsold gains than other ways of getting richer, like wages—apparently not regarding unsold gains or losses as fully “real” until sold (Thaler 1980). We show that those who exhibit such views are considerably more likely to oppose taxing unsold stock gains, suggesting that mental accounting helps drive opposition to taxing unsold gains. Second, people seem to support the status quo of not taxing unsold gains in part because it is the status quo. Knowing that

unsold gains are not taxed under current law is a strong predictor of favoring that policy. And a randomized treatment that makes some respondents think that unsold gains are taxed under current law increases support for that policy. Third, in the context of taxing capital income—particularly that arising from unsold gains—a sizable share of participants appear to actually wish to tax consumption, rather than income itself. More broadly, opposition seems to spring in significant part from deep-seated psychology—like mental accounting—which likely provide an important drag on the public support taxing individuals directly on unsold gains.

Our main goal with the project is descriptive: understanding empirically how the public thinks about taxing unsold gains. We also seek to understand how these views would evolve if there were a longer public debate on the issue by analyzing the differing responses to our various policy frames and randomized persuasion treatments. A better understanding of attitudes about the realization rule could matter for at least three reasons—of course, knowing that any such measurement, while valuable, is imperfect. The first reason is explanatory. While the effect of public attitudes on policy outcomes is complex—since many other things influence such outcomes (Kingdon 1995)—our results suggest that public attitudes can help explain the continued use of the realization rule. A second reason is instructive. Understanding the widespread opposition to taxing unsold gains—without necessarily assuming that those attitudes exist in any consistent or coherent form (Converse 1964)—helps suggest ways of designing and framing policies that could be both palatable and workable. Third, though not our focus, the public’s attitudes may have normative weight on their own account (Fishkin 2018); we remain agnostic here. We return to these implications in the conclusion.

As noted above, there are now a large number of studies of public attitudes toward various aspects of taxation. Broadly, ours fits in with those suggesting that perceptions of fairness, rather than efficiency, drive a large portion of American attitudes toward taxation, e.g. Stantcheva (2021); Fisman et al. (2020). More specifically, our findings dovetail with others that suggest that Americans have strong preferences over how taxes are constituted, even among those that result in the same final distribution of resources, e.g., Sheffrin (2013). This is, however, the first paper to develop empirical evidence on attitudes about the crucial issue of income realization. Also, by presenting suggestive evidence linking these views to mental accounting (Thaler 1980; Thaler 1985; Odean 1998), our paper also contributes to the literature on the ways that misperceptions and use of heuristics relate to people’s attitudes toward the tax system (e.g., De Bartolome 1995; Slemrod 2006; Rees-Jones and Taubinsky 2019).

Section II summarizes the structure of the surveys. Section III discusses the main results. Section IV explores explanations for the opposition to taxing unsold gains. Throughout, unless otherwise noted, we discuss the results from the control survey, without the treatments. The full survey text is in the appendix, along with the statistics on the share of respondents giving each answer in brackets. In the main text, we reference the question number to which the result refers as “Q#.”

II. Survey Design

We designed surveys to understand public attitudes about the realization rule and implemented it using Qualtrics. We created eight versions of the Primary Survey in order to test the effects of seven persuasion treatments compared to the “control” version. In addition, we subsequently ran a Robustness Survey with three versions: a “robustness benchmark” and two variants of it. At the heart of each survey was a set of questions asking respondents about their preferences for taxing stock gains in the year the gains occur, rather than when they are sold. We also asked respondents comprehension questions, as well as questions on their policy preferences, demographics, and related hypotheticals about sold and unsold gains.¹

The surveys were designed to ensure data quality following Stantcheva (2021). Language in the consent form appealed to respondents’ sense of social responsibility and warned that we would seek to detect careless answers and may withhold payment as a result. We drop participants who fail a simple exercise of following directions in a later question (Q36). We asked respondents to answer two comprehension questions to improve understanding of the programs presented, and our question order—asking free-form questions before multiple-response questions—was designed to avoid influencing the free-form answers. Policy preference questions were phrased to be able to verify whether responses are generally consistent. At the end of the survey, we also asked respondents if the survey was biased or confusing.² The median time to complete the control survey was 30 minutes, but our main questions come just a few minutes after the start. Although this is a long survey, there is evidence that the length of the survey does not harm engagement: Appendix Table 1 shows that randomizing the length of the survey prior to reaching a given question has no statistically significant impact on the responses to that question.

¹ We asked for demographic information at the beginning of the survey to screen out participants early, as respondents who did not qualify were not paid.

² Respondents overwhelmingly said that the survey was unbiased (81%, Q118) and that they understood at least most (81%, Q117) of the survey.

We distributed the surveys through a commercial survey company, Respondi, that specializes in producing high-quality survey responses. Through potential participant screening and repeated contact of individuals, Respondi creates incentives for respondents to carefully complete the survey to ensure they will be invited to future survey panels.³

A. Control Survey

The control survey is the primary version that the other treatments are based on. We begin with orienting material and basic instructions. Respondents first see a screen explaining what publicly-traded stocks are. It then explains that this survey focuses on such publicly-traded stocks, like the fictitious “Grocery Co,” that are not held in retirement accounts. We then ask two comprehension questions. These ask respondents how much tax an investor with unsold stock gains would owe if tax is imposed either: (a) only at sale or (b) each year as gains occur. In the rare cases where respondents get the answers wrong, we explain the correct result. This orienting material is meant to help get respondents thinking about a subject—when unsold gains should be taxed—that we expect few have previously considered, even as asking their views on the subject surfaces existing intuitions.⁴ Because most of our questions are framed using concrete scenarios with specific taxpayers (with randomly assigned names), we explain in our last introduction screen that, though our hypotheticals reference specific people, the policies apply to other similarly situated parties. We do not tell respondents that unsold stock gains are currently untaxed, to avoid nudging respondents to oppose taxing unsold gains for that reason.

We then turn to the main survey questions. To establish respondents’ attitudes toward taxing stock gains, we ask them using a Likert scale (with seven options from strongly oppose to strongly support) if they support taxing a person with sold stock gains. We also ask them a parallel question about their support for taxing someone in the “economically equivalent” position with unsold stock gains. We include these two questions (whose order was randomized) both to have an experimental test of support for taxing sold versus unsold stock gains and also to get our participants thinking more deeply about these issues.

³ See <https://www.respondi.com/EN/access-panel>. Responses were largely high-quality—for example, when we asked respondents why they preferred taxing only on sale, the average answer length of the free response was a rather lengthy 21 words. Respondi worked with a U.S. partner to collect data. Another study recently found using the Respondi sample that at least answers to factual questions were unaffected by the use of financial incentives to participants. Stantcheva (2021, p. 8).

⁴ These questions of first impression, which nevertheless draw on existing intuitions, are common in the literature on “moral judgments,” such as surveys concerning the “trolley problem” about whether people prefer, for example, that the driver of a trolley continue straight ahead and kill five people or flip a switch and kill only one. Christensen and Gomila (2012).

We then ask our “baseline” question, which offers respondents a head-to-head choice for when stock gains should be taxed: (1) in the year when the gains occur or (2) only when the stocks are sold. It looks like this:

Facts: Suppose that Leah bought stock in Grocery Co. at the end of last year.

This year, Leah's stock in Grocery Co. goes up in value by \$50,000. She **does not sell** any of her stock.

The government is choosing between two policies for taxing people like Leah. **Which do you prefer?**

Leah pays income tax **this year** on the increase in her stock, even though she **does not sell** it.

If her stock later goes back down in value, these taxes are refunded. And, because gains have already been taxed, she will not have to pay tax on them again when she sells her stock.

Leah pays income tax on increases in her stock only **when she sells** her stock in the future.

The setup is designed to be as simple as possible while still conveying the important policy aspects. A scenario with a specific taxpayer makes matters concrete. A \$50,000 stock gain is large to the average American, but is an amount of money not entirely outside the scope of what respondents would be familiar with. For our option to tax unsold gains this year, we also provide some additional detail (in smaller font, to reduce the sense of additional complexity or oddity) explaining two aspects of the policy: taxes are refunded if the stock later goes back down in value, and the taxpayer will not be double-taxed on the gains. We focus on this head-to-head question to reduce status quo effects, make clear what the counterfactual is to each option, and provide clear comparators for subsequent questions. (We randomize the order in which the answer options appear as we do for the rest of the survey.)

Once respondents’ preferences were established for taxing unsold stock gains, follow-up questions asked them why they had this particular preference. Respondents were first asked to give a free-form response explaining their choice. They were then asked whether they agreed with each of a list of advantages and disadvantages of taxing unsold stock gains. We call this “structured reasoning.”

Then the respondents were asked a large number of additional questions, offering various fact patterns, policies, and framings exploring potential reasons for opposition and other contours of people’s beliefs about taxing sold and unsold gains. Some of these questions were randomized

in. Of course, these questions always come after the baseline question; so, while we do have considerable variation in answers across questions, we cannot reject the possibility that a desire for consistency attenuates the difference from the baseline. In the interest of readability, the results of many of these questions are not discussed here and are instead left to future analysis.

After conducting three pilot surveys that allowed us to hone our questions, we listed the Primary Survey with Respondi. We paid \$3.45 per response. From January 29, 2021 until March 12, 2021, we collected about 5,000 respondents for all the versions of the Primary Survey simultaneously. The control has about 1,000 respondents. They were, by design, representative of the United States population in terms of age, gender, and income; there were no statistically significant differences with the U.S. population for these variables. Table 1 compares the demographics of the national population to those of the control survey respondents. There are modest (and statistically significant) differences from the national composition for education, race, and politics. The survey is also representative with respect to stock and home ownership, as well as marriage rates and employment status. We also roughly match the policy views stated in other national surveys like Gallup.⁵ Results throughout are very similar when reweighting for demographics and are available from the authors.

B. Persuasion Treatments

While some participants took the control survey, other participants were randomized into one of seven different versions of the survey to which we added persuasion treatments at the beginning of the survey. These treatments explore what drives respondents' reasoning, measure how additional reflection affects attitudes, and test how malleable attitudes are.

The first treatment is the “both-sides” treatment, which presents two videos of “experts,” each about a minute. The “anti-tax” video offers reasons against taxing unsold stock gains. The other, “pro-tax” video explains reasons to support taxing those gains. We chose these to give what we thought would be the most persuasive reasoned arguments against and for, which would be used if there were a public debate on the topic. We loosely based the anti on commentary by the Heritage Foundation and other opponents and the pro on the case made by the Senate Finance Committee plan (Wyden 2019). And, in fact, the arguments used by Democrats and Republicans in Congress in late October 2021—when Democrats briefly appeared to be coalescing around a

⁵ For example, we find that 68% support higher taxes on corporations (Q102), while Gallup finds that 66% support on a similar question. Newport (2017). We find that 77% say that the government spends too much money (Q105), while Reason finds that 76% say that the federal government spends too much. Ekins (2013). We find that 70% say that the rich pay too little in taxes (Q105), while Gallup finds 61%. Newport (2016).

plan to repeal the realization rule for billionaires—largely echoed the points used in the pro-tax and anti-tax videos (e.g., Bobic and Delaney 2021).

The second and third treatments present each of the anti-tax and pro-tax treatments on their own.

We then have two variants of arguments seeking to persuade respondents that taxing unsold stock gains is a good idea. The fourth treatment responds to objections to taxing unsold stock gains that it would be unfair, complicated, etc. The fifth aims to break down the mental accounting categories in which people think of wages—but not unsold stock gains—as income, by arguing that the two are essentially economically identical.

The sixth treatment aims to reduce the impact that the status quo may have on respondents by explaining to them that, under current law, various assets are taxed when gains or losses occur, before they are sold. In particular (though we do not use any technical language), we describe depreciation, which approximates the decline in value of certain assets without a sale, and various derivatives whose unsold gains are taxed annually under Internal Revenue Code § 1256.

The seventh and final treatment asks respondents about the taxation only of rich individuals. Unlike the other six treatments, this treatment did not use a video.

Aside from the addition of a persuasion treatment, the beginnings and main part of these surveys are identical to the control survey. These surveys have fewer follow-up questions, however. The data collection method was also identical to that used for the control survey. We collected about 500 responses from each of the persuasion treatments, except for the “both-sides” treatment, from which we collected about 1,000.

Our respondents for the treatment surveys have essentially the same demographic representativeness as the control survey. Table 1 shows the demographics of all the treatments other than the control together, and Appendix Table 2 shows the demographics and size of each treatment.

C. Robustness Survey

To help ensure that our main results are not driven by certain word or other design choices in the control survey, we ran a subsequent, Robustness Survey. It had three versions: the “robustness benchmark” survey basically matched the control, except with many fewer questions after the baseline, and two other versions with different wording choices in the main questions. We listed the Robustness Survey with Respondi from April 11, 2022, until May 1, 2022, and paid \$3.10 per response. Each of the three variants has about 500 respondents. Our respondents for the Robustness Survey have roughly the same demographic representativeness as in the Primary

Survey as shown in Table 1, with further detail in Appendix Table 3. Full details of the survey are in Appendix B.

III. Main Results

We divide our main results into two portions. We first describe the basic overwhelming opposition to taxing unsold gains in stocks, as well as other assets. This opposition persists across a variety of framings and across all demographic groups. But there is also a flip side: there is strong support for taxing assets when they are sold. We then describe the effects of the randomly assigned treatments. The treatments in the Primary Survey all have statistically significant impacts, but none leads to a majority preference for taxing unsold stock gains in the baseline question. Most notably the treatment simulating “both sides” of the policy debate about taxing such gains has only a modest effect on views. In addition, in the robustness checks, we find no evidence that our main results are driven by question wording or survey design on the dimensions we test.

A. Baseline Preference for Taxing Unsold and Sold Stock Gains

i. Unsold Gains

As mentioned above, we begin by asking Likert-scale questions on whether respondents “support” or “oppose” taxing each of unsold stock and sold stock gains. We find substantially less support for taxing gains on unsold stock than sold stock. Comparing two “economically” equivalent individuals who make \$50,000 of stock gains, one of whom has sold (Q29) and the other of whom has not (Q30), support for levying income tax is 31 percentage points (“ppt”) ($p < 0.05$) higher for the sold stock (74% vs. 43%). The intensity of support for taxing sold and unsold stock is also asymmetric. Among those who support taxing sold gains, 67% do so “strongly” rather than “weakly.” By contrast, that figure is 54% for supporters of taxing unsold gains. We call these our “support” questions.

Respondents’ preferences are even more stark when given the “baseline” head-to-head choice between taxing gains when the stock appreciates or only when it is sold (Q31). In this question, 75% prefer to wait until the stock is sold, with only 25% wanting to tax unsold gains.⁶ This is one of the key results in the paper and is shown in Figure 1. As our best single measure of attitudes about taxing stock gains, this “baseline” question will often be the reference point of our analysis for the remainder of the paper. This preference is also reflected in a separate question

⁶ Including respondents who failed the attention question does not change our main result qualitatively. With those respondents, support is 31%.

asking respondents what they regard as fair: only 27% regard such a tax on unsold stock gains as fair versus 73% who do not (Q71).

This preference is similar across other unsold assets, as shown in Figure 2. Support for taxing unsold gains in commercial real estate investments and private businesses was comparable to that for stocks (21% and 29% respectively, Q59 & Q61), despite these assets presenting valuation and liquidity issues that are considerably more difficult. As we will discuss below, this suggests to us that liquidity and valuation may not be central to motivating opposition to taxing unsold gains. For homes and art, support for taxing unsold gains was closer to 17% (Q64 & Q65). We suspect the public's greater resistance to taxing paper gains in these assets comes from thinking of them partly in non-market terms. Support for taxing the combination of these assets is 22% (Q67).

Another sign of the strength of the preference comes from a different head-to-head choice (Q91). Respondents are asked to choose between two ways of adding a given amount of new revenue: (a) a new tax only on sold stock gains at rates higher than the current ones, or (b) a new tax on unsold stock gains with rates equal to the current rate for stock sales. For this, only 32% of respondents favored taxing unsold stock versus 68% opposed. This suggests opposition to taxing unsold gains is strong even when the policy explicitly raises the same revenue as a tax on sold gains.

Even more tellingly, respondents prefer raising everyone's taxes versus a new tax on unsold stock gains. Respondents are given a choice between raising a given amount of revenue by: (a) raising everyone's tax rates by the same amount or (b) a new tax on unsold stock gains. Over half of respondents (54%) supported raising everyone's rates,⁷ and only 46% supported the tax on unsold gains (Q92). Indeed, nearly half (46%) of those who *do not own taxable stock* supported raising everyone's rates. Put differently, these people appear to prefer raising their own taxes to a mark-to-market regime on stocks that would not directly affect them.

Yet another sign of the tepid support for taxing unsold gains is that respondents who favor taxing unsold gains in the baseline still often wish to reduce the tax on those gains. For example, only 44% of supporters of taxing unsold gains wish to apply that regime to gains that have already accrued if we began taxing unsold stock gains today (Q95). This is especially notable because

⁷ It is notable here that respondents correctly think that stock is overwhelmingly owned by the rich. On average, respondents say that 69% of stock is owned by the richest 10% of Americans (Q112), which is fairly close to the correct answer of 84%. Wolff (2017).

proposals for a new tax on unsold stock gains generate a lot of their revenue from applying the new tax to gains that have already accrued (Batchelder & Kamin 2019).

A final piece of evidence of the aversion to taxing unsold gains comes from a different form of taxation—the property tax. Popular revolts against property taxation of unsold appreciation in home values motivated us to ask participants about how a property tax should handle appreciated assets (Zelinsky 1997). In this context, respondents are again hesitant to fully tax gains on assets that have not been sold. When asked about a homeowner who paid \$250,000 for their home, which is now worth \$300,000, the average preferred property tax valuation was about \$273,000, because 51% of respondents preferred a tax valuation of less than \$300,000 (Q73), as shown in Appendix Figure 1. By contrast, just 20% thought that someone who had just paid \$300,000 for an almost identical house should be assessed at less than that value (Q75). This result suggests that an important motivation for referenda imposing caps on increases in property tax valuations without a sale may indeed be the paper gains phenomenon.

ii. Who Prefers Taxing Unsold Gains?

In every major demographic or political group, a substantial majority of respondents opposed taxing unsold gains in the baseline question. Some of these groups differed somewhat, however. This is shown in Figure 3. Those who are 44 years old and younger are 13 ppt more likely to prefer taxing unsold stock gains than those who are 45 and older. Those who earn under \$100,000 are 9 ppt more likely to prefer taxing unsold gains than those who earn more than \$100,000. There is a similar gap for education: those without a BA are 11 ppt more likely to prefer taxing unsold gains than those with at least a BA. There is no significant gap for gender. And there is a modest 4 ppt gap for race: non-whites are more supportive. Politics are also predictive: being a Republican is associated with being 14 ppt less likely to support taxing unsold gains than being a Democrat, and being an independent is associated with being 7 ppt less likely than being a Democrat. (All these differences are statistically significant at the 5% level.) However, among all these sub-groups, none has greater than 34% support (the support among 18-44-year-olds) for taxing unsold gains.

Similarly, there are differences in support in the baseline question by stock ownership. As shown in Figure 4, support for taxing unsold stock gains is 13 ppt lower among those who own stocks (in any form) versus those who do not own stocks. Results are similar for those who own taxable stock outside of retirement accounts. But even among those who do not own stock in any form, only 32% support taxing unsold stock gains. And these differences shrink yet further when

controlling for demographics—to just a 6.3 ppt difference (Appendix Table 4). Those who say they understood all or most of the survey are 18 ppt less supportive than those who understand less (21% vs. 39%), and those who get a financial literacy question correct are 14 ppt less supportive than those who did not get it correct (18% vs. 32%). (Appendix Table 5 presents the various demographic variables in a regression together.)

Thus, opposition to taxing unsold gains is stronger among people who: have higher income, own stock, have more education, are more financially literate, or reported understanding more of the survey. This fact may be important for two reasons. First, as a matter of political economy, these groups are likely to exert the most influence on policy related to taxing unsold gains both because of the political power resulting from their wealth and also because they are more likely to be directly affected by the policy. Second, these groups also likely have had the most experience with asset ownership which suggests their attitudes may be more stable, and indeed as discussed below, stock owners do seem less persuadable by the treatments. With all that said, it remains the case that, even outside these groups, support for taxing unsold gains remains quite low.

iii. Sold or Transferred Gains

The flip side of these attitudes is that there is strong support for taxing sold or transferred assets. Figure 5 shows that this pattern holds for those given the choice between taxing at the time of sale or transfer versus never taxing those gains, even in places where current law never taxes such gains. For sold stocks, 76% support taxing (Q42).⁸ Perhaps most notably, taxing unsold gains at death (Q51) has substantial support: 64% in the control and 79% in the rich treatment. This is of independent interest as well. Under current law, neither the decedent (on her final tax return) nor the recipients of this kind of appreciated property must pay tax on such gains. Instead, the recipients receive a step-up in basis to the current fair market value. This costs the fisc about \$45 billion annually (JCT 2019).

We find something similar with sales of homes. Current law exempts the first \$500,000 of gains on the sale of a principal residence for married couples filing jointly. This costs the fisc about \$40 billion annually (JCT 2019). By contrast, we find surprisingly robust support (63%, Q62) for

⁸ Note that this support differs from the Likert-scale question discussed earlier on sold stocks (Q29) because Q42 is a head-to-head question used for comparability with the other head-to-head questions. It is also possible that fewer respondents chose to “never-tax” these sold stock gains because they were not given a similar never-tax option in the baseline question (Q31) and felt a desire to maintain consistency in their answers after the baseline.

taxing gains realized on sales of homes.⁹ Results are even stronger for sold small businesses, with 74% support for taxing upon sale versus never taxing (Q60), which contrasts with the treatment of small business (C-corporation) stock under current law in Internal Revenue Code § 1202.

Note that some of the preference for taxing sold or transferred gains in these questions comes from people who are primarily motivated by an opposition to *never* taxing such gains. For example, a substantial majority opposes allowing unsold gains held at death to escape taxation forever. But, as we discuss below, their views on whether the tax should be (1) now or (2) in the future, when the heir sells the property with a built-in gain, are more complex.

B. Persuasion Treatments

The seven persuasion treatments in the Primary Survey that we explored yielded striking results, most notably how little the both-sides treatment impacted the results, even though each argument on its own had big effects. The proposal for taxing unsold gains for only those with over \$10 million in wealth also had surprisingly little support. Figure 6 shows the results of the treatments. Table 2 shows the results in tabular form. All treatments yielded statistically significant effects ($p < 0.05$). We first review the effects of each of five treatments in turn (deferring discussion of two treatments to the next section, on explanations for the opposition to taxing unsold gains) and then discuss who was most persuaded by them.

i. Treatment Effects

Both-Sides, Anti-Tax, and Pro-Tax

The both-sides videos only modestly increase respondents' preference for taxing unsold stock gains. Watching the videos causes a 5 ppt increase in the likelihood of preferring taxing unsold gains.

At the same time, each of the anti-tax and pro-tax videos—on their own—is quite persuasive, producing large changes in respondents' views. The anti-tax treatment reduces the preference for taxing unsold gains by about 1/3, or 7 ppt. This minute-long video describes taxing unsold gains as unfair, radical, and complicated; says that the tax would punish middle class

⁹ Note that in our question the taxpayer only owns the home for three years, although other assets in the survey were purchased the year before. We make this slight tweak to ensure that the taxpayer would be eligible for the exclusion on home value gains under Internal Revenue Code §121.

families and job-creators; and notes that investors haven't gotten the benefit of their investment yet, among other issues.

The pro-tax treatment nearly doubles the preference for taxing unsold gains—by 19 ppt. This minute-long video emphasizes that taxing unsold gains is fair, analogizing it to taxing wage earners on their gains each year, and saying that it closes a huge loophole that the rich like Mark Zuckerberg take advantage of. As with the anti treatment, these large effect sizes suggest we have done a good job of capturing the salient points in favor and against this policy.

Of course, some of this impact may be due to experimenter demand effects: because it is clear that the intent of these one-sided videos is to alter attitudes, participants' responses may change in line with these persuasion videos even if their underlying attitudes are unaffected. Of course, we cannot say for sure what underlying attitudes are because they are unobserved. However, there are reasons to think that experimenter demand is not the primary thing driving these changes. For example, while participants may not be fully aware of the influence they are under, we can narrow the sample to respondents who reported their subjective belief that the purpose of the survey was to push them to *neither* support nor oppose taxing unsold gains (Q118). When we do so, the treatment effects are nearly identical (e.g., +20 ppts for the pro-tax and -7 ppts for the anti-tax treatments). As well, we can compare the size of the impact of the treatments. While experimenter demand could differ across treatments, we have a variety of treatments that favor taxing unsold gains, but some produce only modest increases in support like the anti-status quo treatment (Q28), while others produce very large effects, suggesting that experimenter demand is not the only effect at play here.¹⁰

Overall, the results provide little evidence that taxing unsold stock gains becomes much more appealing to the participants as they get more familiar with it. On the one hand, the anti-tax and pro-tax treatments produced large effects, which suggest people's views on the question are malleable. That is not surprising given that there has been little public discourse on taxing unsold gains. On the other hand, the both-sides treatment provides the best evidence of what would happen if such a discourse did occur. And in that case, after being exposed to a debate on the policy, there still was little appetite for taxing unsold gains, with only 30% preferring that policy.¹¹ We also

¹⁰ The public's confirmation bias as they generally process information could help explain the results: with the both-sides treatment, respondents who were predisposed toward one answer could find arguments that reinforced that position. By contrast, the one-sided nature of the pro-tax and anti-tax versions would have limited confirmation bias.

¹¹ One might expect that if there was a public debate—with Democrats in Congress lining up in favor of taxing unsold gains and Republicans against—citizens would retreat to their partisan corners. Even if that's true to a degree, we find

find that the answer to the baseline question does not change when we ask them again toward the end of the control survey—after spending 20-30 minutes thinking about the issue (Q82): 22% of that sample prefer taxing unsold gains, compared to 25% initially.

Responding to Objections to Taxing Unsold Gains

This video primarily is aimed at responding to potential objections about taxing unsold gains. The video argues that taxpayers would find taxes on unsold gains simple, easy to pay, with tax bills that are steady over time, and fair. This treatment increases the preference for taxing unsold gains by 16 ppt—a considerable increase, though somewhat less than the policy “pro” treatment.

Rich

Finally, we explore whether respondents’ attitudes are different if policies are limited to taxing only the rich.¹² We are motivated here in part by the plan from Senate Finance Committee Chairman Ron Wyden to tax unsold stock gains only for taxpayers with over \$10 million of wealth or very high incomes. In our “rich” treatment, we tell respondents that we are only asking about how the wealthy should be taxed, in particular those with over \$10 million of wealth. Above each question, we put this box:

Remember: this policy would only apply to people with over \$10 million of wealth.

In addition, we increase the gains at issue from the \$50,000 in the questions to \$1 million, to avoid cognitive dissonance between being very rich and having modest gains.

Surprisingly, the rich treatment only moderately increases the preference for taxing unsold stock gains—by 9 ppt to 34%. Only 41% found such a tax on the rich fair (Q71). This is true despite the fact that 74% of our respondents in this treatment think the rich pay too little tax (Q105), and taxing unsold gains in this treatment would explicitly only raise taxes on the rich. It is true that 51% of respondents prefer to tax the rich on unsold stock gains if any revenue is earmarked for

that Democratic preference for taxing unsold gains remains low in the both-sides treatment (37%) even after hearing arguments in favor that are designed in part to appeal to their partisan instincts.

¹² Respondents’ intuitions about how unsold gains should be taxed could differ depending on the taxpayer’s wealth not only because of a desire to tax the rich, but also for other reasons. For example, people may be less concerned that the rich would face liquidity problems in paying taxes on unsold gains than the population at large. Similarly, people may be less tolerant of very large unsold stock gains accruing to the rich escaping taxation than smaller amounts.

protecting Social Security,¹³ which is a particularly popular use of the funds (Q93).¹⁴ Using a “withholding” tax on the unsold stock gains of the rich to protect Social Security further increases support to 59% (Q94). Nevertheless, when allowed to choose other methods of taxing the rich, respondents strongly preferred those options. For example, respondents overwhelmingly (69%) favored new taxes on the rich implemented via higher rates rather than taxing unsold gains (Q92).¹⁵ Likewise, 74% of respondents in this treatment favored raising corporate tax rates (Q102).

Many opponents of taxing unsold gains seem to just regard it as a bad tax and changing who pays it—rich or not—does not change their mind. Indeed, as noted earlier, nearly half (46%) of respondents in the control with no taxable stock would prefer to raise their own tax rates rather than to tax unsold stock gains, which would not (directly) affect them (Q92).

ii. Who Is Most Affected?

We also measure who changes their attitudes because they randomly receive a treatment. We find that non-stock-owning respondents are more affected by the treatments. In Appendix Table 6, we interact the treatments or combinations of the treatments (to increase statistical power) with an indicator for owning stocks to see whether those who own stocks or those who do not are more impacted. We find that those who do not own stocks are more likely to change their attitudes as a result of getting a treatment. When we combine the three treatments most oriented toward encouraging support for taxing unsold gains—pro-tax, responding to objections, and countering mental accounting (discussed in the next section)—we find that those who do not own stocks are 10 ppt more responsive than those who own stocks. Similarly, we find that the both-sides treatment causes an 8 ppt greater increase in support for those who do not own stocks than for those who do own stocks. In turn, this implies that almost the entire increase in support for taxing unsold gains in this treatment came from those without stocks.¹⁶ Therefore, stockowners—the group most knowledgeable about and also most personally invested in this policy—are essentially unpersuaded by the both-sides treatment.

¹³ In the control, 40% of respondents prefer taxing unsold stock gains in the analogous question (Q93). For the rich treatment, we also include a partisan framing saying that Democrats are considering this change (Q104). The result is basically unchanged, with 50% support.

¹⁴ For example, 74% of Americans say Social Security benefits should not be reduced in any way (Parker et al. 2019).

¹⁵ As elsewhere, respondents are told that each policy would raise the same amount of revenue. In a similar question, 59% of respondents preferred a new tax that increased the rate on sold stock gains of the rich to taxing unsold gains at a lower rate (Q91).

¹⁶ The total increase in support from the both-sides treatment was only 5 ppt, and the non-stock owners (about half the respondents) increased their support by 9 ppts compared to 1 ppt increase for stockowners.

iii. Effect of the Treatments on Reasoning

Appendix Tables 7 and 8 present the impact of the treatments on respondents' stated reasoning. Several of the treatments shift the reasoning for and against taxing unsold gains across-the-board, independent of the specific informational content. For example, the anti-tax treatment increases agreement with almost all of the anti-tax reasons and reduces agreement with all of the pro-tax reasons, while the pro-tax treatment decreases agreement with all of the anti-tax reasons and increases agreement with all of the pro-tax reasons. Likewise, the rich treatment reduces agreement with all of the anti-tax reasons and increases agreement with all of the pro-tax reasons, which—since this treatment contains no persuasion content at all—could be interpreted as evidence for motivated reasoning. This apparent malleability may suggest that public debate and media do shape the tax preferences of the public, at least when novel issues arise.

C. Robustness Checks

In robustness checks, we changed the language of the main questions to see whether this affected respondents' answers. The “unsold wording robustness check” removed text throughout that stressed to respondents that they were choosing to tax *unsold* gains. For example, from the baseline question (Q31), it removed the portion after the comma from: “Mary pays income tax this year on the increase in her stock, even though she does not sell it.”

The “simplified wording robustness check” cut down the text of the option to tax unsold gains, removing the discussion of what happens if the taxpayer's stock drops, throughout the survey. For example, it changed the relevant part of the baseline question (Q31) **from**:

“If her stock later goes back down in value, these taxes are refunded. And, because gains have already been taxed, she will not have to pay tax on them again when she sells her stock” **to**

“She will not have to pay tax on her gains again when she sells her stock”

As shown in Table 2, column (2), these wording changes did not significantly change the baseline response. Respondents randomly assigned to those robustness checks gave answers nearly identical to those in the robustness benchmark; the unsold wording robustness check had 0.37 ppt (SE = 2.68) lower support for taxing unsold gains, while the simplified wording robustness check had 1.23 ppt (SE = 2.61) lower support. And the robustness benchmark itself—given about a year after the Primary Survey—was almost the same as the Primary Survey control, at 1.61 ppt lower.

The responses to the simplified wording robustness check suggest that our main result is not driven by the baseline question making taxing unsold gains sound too complicated. Likewise, the responses to the unsold wording robustness check demonstrates that our main result is not driven by the baseline question over-emphasizing that the stock remains unsold. And the similarity between the Primary Survey control and robustness benchmark a year later provides reassurance about the baseline prevalence of support for taxing unsold gains.

IV. Explaining the Opposition to Taxing Unsold Gains

We explore several explanations for respondents' opposition to taxing unsold stock gains. Our analysis in this section is constructed around several hypotheses about which we built the treatments and policy variants, as well as other questions.¹⁷ We find the most evidence for three reasons mattering: (1) respondents putting unsold gains in a different “mental account” than other ways of getting richer; (2) an inclination to support the status quo; and (3) a desire to tax consumption, rather than income, in the context of capital gains. We also find evidence against several other explanations, to which we then turn.

A. Explanations with Stronger Evidence Favoring Them

i. Mental Accounting

The first explanation is mental accounting. Outside the tax context, many people put unsold stock gains in a different “mental account” from other ways of getting richer, and then treat those gains differently. For example, people spend less readily from unsold stock gains than other (equivalent) increases in lifetime income stemming from rising wages or other sources (Thaler 1985; Schenk 2004; Baker et al. 2007; Di Maggio et al. 2020; Loos et al. 2020). Likewise, reflecting the “disposition effect,” both retail and sophisticated investors tend to sell stocks that have risen since purchase and keep those that dropped in ways that cannot be explained by informed trading, rebalancing, or transaction costs (e.g., Odean 1998, Grinblatt and Keloharju 2001; Locke and Mann 2005). These investors actually lose money by not deducting their losses for tax purposes. Both phenomena appear to stem in part from people who use mental accounting not fully internalizing gains and losses until sale (e.g., Barberis and Xiong 2009).

We find evidence that similar mechanisms are likely at play in individuals' own mental accounting behavior and in their tax policy preferences. First and most importantly, looking at

¹⁷ We also asked about stated reasons to explain support or opposition. But we find little variation in these, so we do not discuss them in detail. Appendix Table 9 puts these variables, along with a few others, in a regression to see what best predicts respondents' choice, producing results that are largely supportive of the other evidence here.

people’s behavior outside of tax, we correlate hypothetical “tithing” to charity with preferences for taxing unsold stock gains. We were motivated by evidence suggesting that people’s charitable tithing often tracks the receipt of cash (Dahl and Ransom 1999, Dahl and Ransom 2002). We ask the respondent to suppose that she will donate 10% of her income to charity and that she has \$80,000 of wages and \$20,000 of unsold stock gains. We ask whether they would tithe \$8,000, \$10,000, or some other amount. Note that liquidity concerns should be addressed because of the large amount of wages to pay tithes out of.

As shown in Figure 7, there is a very large difference in preferences for taxing unsold gains depending on whether an individual seems to be using mental accounting in tithing. Among those who display mental accounting in tithing (i.e., they donate based only on their wages), only 16% prefer taxing unsold gains. In contrast, among those who do not display mental accounting in tithing (i.e., they tithe out of the unsold stock gains), 48% prefer taxing unsold gains—a difference of 32 ppt.¹⁸

Second, we explore the role of mental accounting in a randomized treatment that emphasizes the economic similarity of wages and stock gains. Our primary goal with this treatment is to get respondents thinking of unsold stock gains without placing them in a different mental account from other types of realized income like wages. This treatment increases support for taxing unsold stock gains by 6 ppt (Table 2), which is accompanied by a 5 ppt increase in the share of respondents who agree that an advantage of taxing unsold stock gains is that such gains are income (Appendix Table 8). This supports the idea that this is a persuasive argument for respondents.

A third, though more speculative, indicator of the importance of mental accounting is that our highest measured preference for taxing unsold gains (59%) comes from the proposal of “withholding” tax in the rich treatment (Q94). The proposal has other differences from the baseline question: in particular, funds are dedicated to protecting Social Security. The specific policy is: “This year, people pay *a fraction* (10%) of the amount they will ultimately owe on their stock increases occurring this year. In each later year, people pay tax on another fraction (10%) of the amount they will ultimately owe on this year’s increases. This will continue until their full gain

¹⁸ We also ask about spending out of a dividend versus an equivalent (as yet) unsold stock gain (Q38-Q39). As expected, we find that respondents are far more willing to spend out of the dividend than the (as yet) unsold gain: 71% for the dividend and only 37% for the unsold gain. (Some of this divergence could be driven by respondents perceiving selling the stock as having higher transactions costs.) In Appendix Table 10, we find that a second measure of mental accounting—being unwilling to spend out of the unsold stock gain, controlling for spending out of the dividend—is associated with opposition to taxing unsold gains. This association is less strong than with the tithing-based measure, perhaps because concern with transaction costs is negatively correlated with mental accounting.

has been taxed or they sell the stock.” This proposal has 8 ppt more support than a similar proposal also earmarked for Social Security, but which taxes unsold stock gains fully in the year they occur (Q93). We speculate that, in focusing on “withholding,” the policy hypothetical may conflict less with mental accounting because it does not treat unsold gains the same as current income. Instead, the policy requires a provisional payment on an open account that will be reconciled when the real tax is imposed when the account is closed upon sale.¹⁹

Putting together our evidence on mental accounting suggests that, even outside of the context of taxation, many respondents just do not view unsold stock gains as income in the sense that they do wages. Because they view unsold gains as largely not yet ripe for consideration in making decisions outside of tax, they also hold the same view within tax.

ii. Status Quo

A second explanation that seems to help explain some of the aversion to taxing unsold gains is the effect of the status quo. Several pieces of evidence point toward the importance of the status quo. First, people’s knowledge of current law is associated with their preferences for taxing unsold stock gains. As shown in Figure 4, those who believe incorrectly that such gains are taxed are 31 ppt more supportive of taxing unsold gains than those who correctly believe that they are not taxed.

Another window on the role of the status quo comes from our questions about how to tax unsold gains held at death (Q50-51). Among those who incorrectly believe that such gains are currently taxed at death, 70% favor this policy compared to never taxing them (Q51). By contrast, among those who know that these gains are not taxed, 54% favor taxing them at death compared to never taxing them. While still a majority, this lower rate again suggests a role for beliefs about the status quo.

We also explore the role of the status quo in our “anti-status quo” treatment, which explains that under existing law, owners of certain assets “similar to stocks” are taxed on gains (or losses) each year, even if they have not sold. Likewise, we explain that owners of commercial buildings can take depreciation to account for wear and tear each year, even if they do not sell the building. Our treatment increased the preference for taxing unsold gains by 5 ppt.²⁰ The treatment also

¹⁹ Another explanation is that, although the text talks about “people” paying the tax, respondents read this proposal as being in part about administrative ease and reduced complexity, since others would “withhold” the tax, like taxes for Social Security and Medicare.

²⁰ Note that the treatment did not say that this is a good tax, which helps mitigate the experimenter demand effects. Also, an identical share of respondents (81%) as in the control thought that the survey was trying to get an unbiased

increased the fraction of respondents who reported believing that unsold stock gains are taxed annually today by 8 ppt—from 28% to 36% (Q89)—which helps explain the increase in support for taxing unsold gains.

At the same time, status quo effects are unlikely to drive a majority of the dispreference for taxing unsold gains. First, among people who are unsure of current law—for whom beliefs about current law are likely to have the least effect—only 26% support taxing unsold gains (Figure 4; Q89). Similarly, as noted earlier, we also ask respondents to pick between two explicitly *new* taxes to minimize status quo effects (Q91). In this question, 68% of respondents chose to impose a new tax on sold stock gains rather than to tax unsold gains at the current rate for stock sales. In addition, both the pro-tax and responding to objections treatments increased support for taxing unsold stock gains substantially, even though they simultaneously increased the number of respondents who correctly knew such gains are not currently taxed (by 14 ppt and 9 ppt respectively).

iii. Taxing Consumption

A third explanation that seems to help explain the distaste for taxing unsold gains is a desire to tax consumption rather than income in the context of gains from capital, particularly that from unsold gains. Several pieces of evidence suggest that a significant share of respondents wish to tax consumption. In general, this makes them prefer not to tax unsold gains, which usually appear not to have been used for consumption yet.

In particular, presenting scenarios that adjust whether the taxpayer “consumed” the gain seems to affect support for taxing unsold gains. We give a scenario in which the taxpayer borrows \$40,000 against \$50,000 of unsold stock gains and uses the money for personal expenses. Here, 36% prefer to tax the amount borrowed and consumed, even without a sale (Q41)—11 ppt higher than in the baseline question. This is so even though, when asked about someone who earned \$50,000 in wages, and saves \$10,000, respondents overwhelmingly (72%) wanted to tax the full \$50,000 in wages now rather than waiting for the full amount to be consumed (Q44). This suggests that consumption intuitions could vary between the wage and stock gain contexts.

Similarly, as shown in Figure 8, in the context of sold or transferred assets, a significant share of respondents appears to want taxation of gains on assets to wait until consumption occurs. Most significantly, in the context of *sold* stock gains, in which respondents overwhelmingly (76%)

understanding of support for taxing unsold gains, whereas this share drops in treatments that do say that it is a good or bad tax.

support taxing at sale (Q42) as shown earlier, if the gains this year are reinvested, just 58% prefer taxing when initially sold rather than waiting to tax until the stocks are sold and consumed (Q43). And, though 63% support taxing gains on home sales in the year of sale over never taxing (Q62), just 49% support timing the tax to when it is initially sold if a housing gain is sold and put into a different home (Q63). Likewise, though 64% of respondents favor taxing gains on bequeathed stock at time of death over never taxing (Q50), only 47% support timing the tax to the death of the giver rather than the sale of the recipient, when the proceeds can be consumed (Q50). An even lower share (39%) taxing at transfer for gifted stock (Q52). Even for commercial buildings for which we presume that support for taxing gains is very high and our pilot showed 73% support for taxing such gains, only 61% support taxing on initial sale when the proceeds are reinvested (Q58)—which is both an opportunity for reform, but also still evidence on consumption intuitions.²¹

B. Explanations with Less Robust Evidence Favoring Them

There are several explanations for which evidence is less robust. We review each of these explanations in turn.²²

i. Variability

One potential concern with taxing unsold gains is the year-to-year variability in tax liability as stocks change in value. When we provide multiple policy options that reduce variability, however, support does not increase. We provide an option to tax people based on a four-year average of their (unsold) stock gains. We explain that this policy reduces the variability of people's tax liability, but support for this option is nearly identical to the baseline (27%, Q49). Similarly, we ask about taxing stock based only on a presumed 8% return, which would provide certainty about taxable income ahead of time (Q53). This policy only received 20% support, which is less than the baseline. In addition, we provide a policy in which taxpayers can choose between paying

²¹ Likewise, our analysis of the free-form responses anecdotally suggests a concern with consumption. Thus many respondents said things like, without a sale, the investor “cannot use” the gains, and that she “hasn't spent any of that income yet.” Appendix Table 11 shows the most common single-word free-form responses.

²² This list is structured around our ex ante hypotheses which we designed questions and treatments to test. We do not claim that this list includes all possible reasons for opposition. But some other reasons that people might worry about do not come up in the free-form responses. For example, almost no respondents express concern about a slippery slope of this tax leading to other new taxes, which could in part be because only about half of respondents know that stock gains are not taxed annually now (Q89). Similarly, there is little reason to think that a “Horatio Alger” effect of lower-income respondents aspiring to own considerable stocks themselves someday driving the results. Not only do respondents not say this but also, as discussed earlier, all types of respondents strongly prefer other ways of taxing stocks (in particular, raising rates on sold gains in Q91) to taxing unsold stock gains. Likewise, only a very small (about 1%) of participants discuss distrust about the government refunding losses if stocks go down.

taxes on unsold gains each year, or to wait to pay their tax until they sell, along with interest on the delayed tax (Q48). This is an “optional accrual system.” This would also likely reduce perceived variability, but garners about the same support (28%) as the baseline. Likewise, as discussed below, we ask about taxing levels of wealth instead of gains in wealth (Q56), which would have less variability, and that garners no more support. And, as discussed above, we find similar opposition to taxing unsold gains in the property tax context, which would present fewer variability issues because housing prices are less volatile than stock prices (Jordà et al. 2019).

We interpret this evidence to suggest that, though some respondents evince a stated concern about variability, more likely variability is not actually decisive for them.

ii. Liquidity

We present several scenarios that alleviate liquidity concerns, but none increases support for taxing unsold gains. This suggests concern about liquidity is also not frequently decisive. For example, we create a situation in which the taxpayer has identical (and plentiful) liquidity regardless of whether she sells a stock that has gained value by comparing responses when stockowners sell shares in either case, but in only one case selling shares that appreciated in value. (In the other case, the sold stock was flat since purchase.) As before, however, support for taxing her depends on whether she’s sold the stock with the gain: 72% if she has, 42% if she hasn’t (Q46-47), almost identical to the “support” questions (Q29-30) about taxing unsold gains that preceded the baseline head-to-head question. Likewise, as noted regarding variability, support for the “optional accrual system” (Q48), which lets taxpayers choose to pay when they sell with interest, is almost identical to the baseline, even though we explain to participants that this addresses liquidity and control concerns among others. Furthermore, as discussed earlier, opposition to taxing assets that are less liquid than stocks, like commercial real estate (Q59) and private businesses (Q61), is similar to that for stocks, providing additional evidence that liquidity is not a main driver (Figure 2).

Finally, in the property tax context, offering liquidity through the property tax system does not seem to allay participants’ concerns about taxing built-in gains. We offer a policy scenario that shifts to a property tax where any tax on appreciation can be delayed until the owner sells, at which time the delayed tax must be paid with interest (Q76). This option of getting liquidity through the tax system does nothing to increase participants’ willingness to assess the home at the market value, with 52% still supporting a valuation less than the current market value (Appendix Figure 1).

iii. Control

As just noted, the optional accrual system (Q48) gives taxpayers equal control over the timing of their taxes compared to the realization rule, but offering this policy does not increase support for taxing unsold gains. Likewise, there is strong support for taxing other forms of income over which taxpayers have limited control, like lottery winnings (78%, Q98) or job bonuses (73%, Q99). (However, note that lottery winnings and job bonuses are not exactly parallel in the sense that they really can only be taxed this year if they are to be taxed as income, whereas with unsold stock gains that is not true.)

iv. Complexity

A tax on unsold gains is facially more complicated than one on only sold gains; this complexity could drive down support. We have two partial tests of this mechanism. First, in the simplified wording robustness check, we describe the regime taxing unsold gains more simply than in the baseline question and have a treatment effect of about 0. While some respondents might be concerned about what happens when stocks go down (the language cut for the treatment), this absence of an effect is evidence that randomly varying people's sense of the complexity of taxing unsold gains does not change their support for the policy. Second, in a hypothetical in which the tax becomes *more* complicated—the annual withholding tax in the rich treatment—support for taxing unsold gains actually goes up, not down. Overall, while we cannot rule out complexity as an explanation, it is one with less compelling evidence favoring it.

v. Framing as an Income Tax Instead of a Wealth Tax

We examine whether a wealth tax is more popular than a regime taxing unsold stock gains, when, in the given scenario, they are economically identical (Q55-56). Apart from being of interest given proposals for wealth taxes, we wanted to test whether framing as an *income* tax is different from framing as a wealth tax because either the lower nominal tax rate or the belief that the tax base is more appropriate might tilt support toward a wealth tax. We randomized our participants into one of two questions: paying a given amount as a wealth tax and an equivalent amount as an income tax. (Both taxes are at the state level to prevent the possibility that respondents would fail to support a wealth tax due to concerns about constitutionality.) We find that support is almost identical (36% for wealth tax, 37% for income tax), suggesting that framing a tax as an income rather than wealth tax per se is not an important driver of intuitions.

vi. Uncertainty Over Market Value

In the context of publicly-traded stocks, uncertainty over the present valuation is not a concern. However, in the case of the property tax, it might be. So, in the property tax context, we change the fact pattern to strongly emphasize the uncertainty in the market value of that house (Q77). This prompt does not reduce respondents' preferred tax assessment. This result suggests that people's objections to taxing unsold gains via property taxes is less based on a fear that the government's judgment about the market price might be wrong, rather than some unfairness in having to pay a tax based on the full market price without a sale.

V. Conclusion

How to tax capital is a central question of our time. And the realization rule is integral to how we do or don't tax capital under the income tax. One main claimed explanation for its use is public attitudes toward "paper gains." We offer the first empirical evidence on attitudes toward taxing unsold gains, which is especially valuable given recent legislative proposals. The public does seem to strongly prefer taxing only at sale—by a large, 3:1 margin. Our best evidence of how attitudes would shift as people are exposed to policy arguments—from our "both-sides" video treatment—is that taxing gains before sale would remain widely unpopular. Similarly, even limiting the tax to the rich only modestly changes attitudes. The resistance to taxing unsold gains appears driven in part by deep psychological tendencies, like mental accounting. These attitudes seem likely to help explain the use of the realization rule, especially since opposition is strongest and least malleable in the groups who both have the most at stake and are politically strongest. Although attitudes about taxing unsold gains are somewhat malleable, proponents of this policy seem to be sailing into a significant and durable headwind.

Of course, the policy merits of taxing unsold gains are hotly debated. For those who wish to tax unsold gains, however, the results have specific and general implications. Narrowly, the paper provides some guidance on what structures for a tax on unsold gains would have more or less support. For example, the "withholding" version in the rich treatment has a narrow majority of support, which suggests there may be methods of taxing unsold gains that command popular support. In addition, people do shift their attitudes considerably both when given some kinds of information in favor (or against) taxing unsold gains. These results demonstrate that despite the headwind just noted for proponents of taxing unsold gains, how the policy is "sold" is still important.

More generally for those who wish to tax unsold gains, the paper’s results suggest they should also consider other policy designs that might achieve some of the same goals, without triggering the phenomena—mental accounting, status quo effects, and taxing consumption—we identify as potentially causing the opposition to directly taxing unsold gains. These possibilities could include alternatives that garnered more support in the survey, such as taxing unsold gains at death, taxing gains on housing sales, and raising rates on sold stocks—or even more significant changes like taxing corporations themselves mark-to-market or mandating dividends, as discussed in Fox and Liscow (2022).

Ultimately, beyond the policy alternatives though, there is a deeper point. Viewed at the highest level, we provide evidence of a significant barrier to taxing capital through an income tax—a barrier that does not apply to labor income. There may just be considerable psychological headwinds to taxing capital in particular through an income tax.

The project also raises many questions for future research. Some relate to issues of the tax base. For example, how general is the preference to actually tax consumption rather than income? More generally, these public attitudes reflect views about fairness that extend beyond distributional considerations—often the focus of tax scholarship—to the means of revenue-raising; this may be true in other areas too (Sheffrin 2013). We hope that similar methods to those that we deploy here can be used to gain greater insight into public attitudes about taxation and the psychology, as well as the ideology and potential confusions, that drive them.

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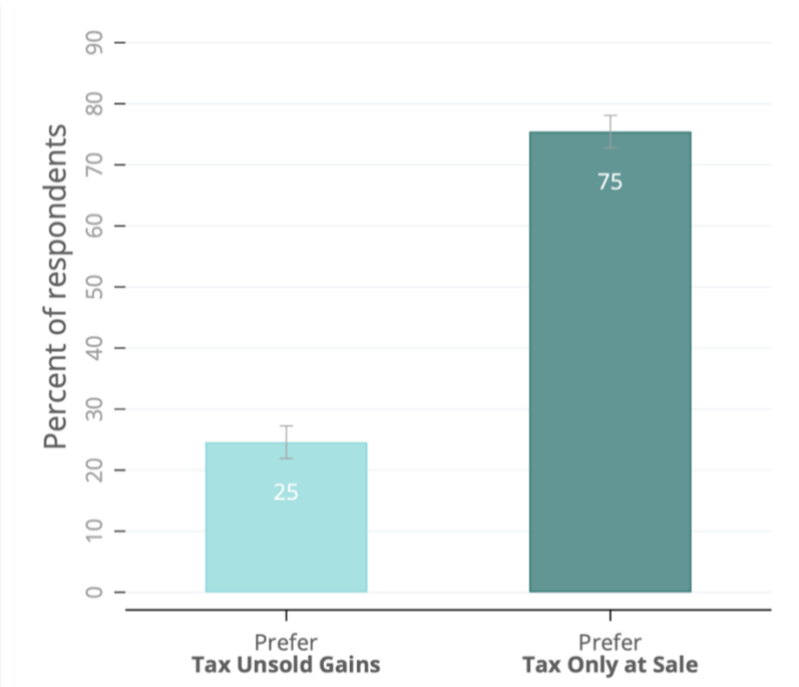
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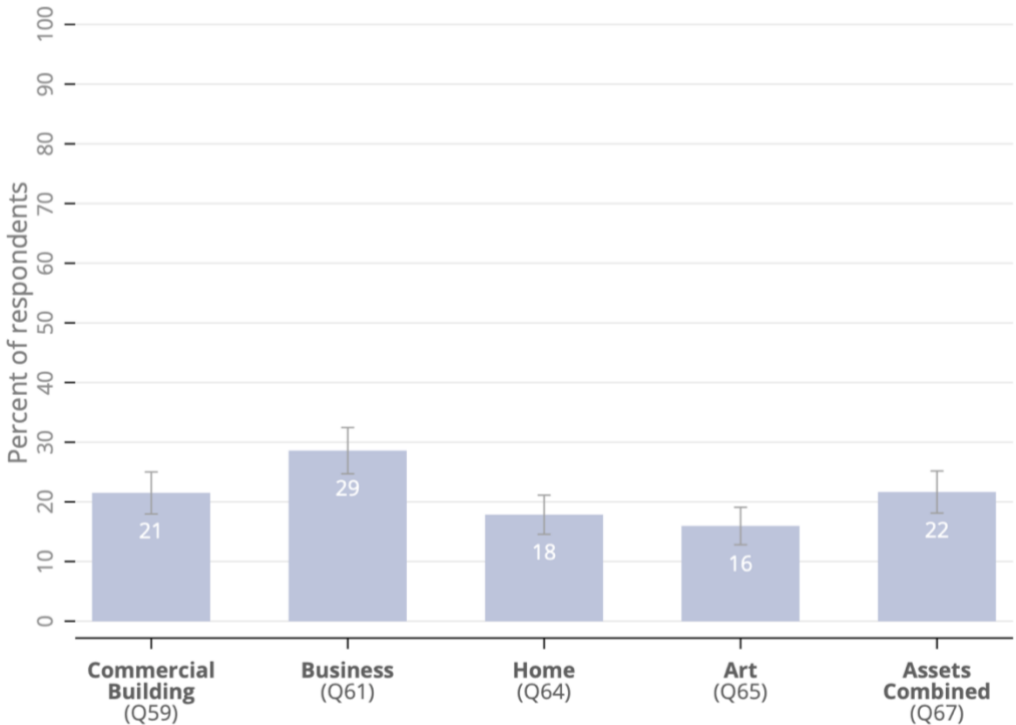
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Figure 1: Percent Preferring Taxing Unsold Stock Gains vs. Only at Sale – Control Sample



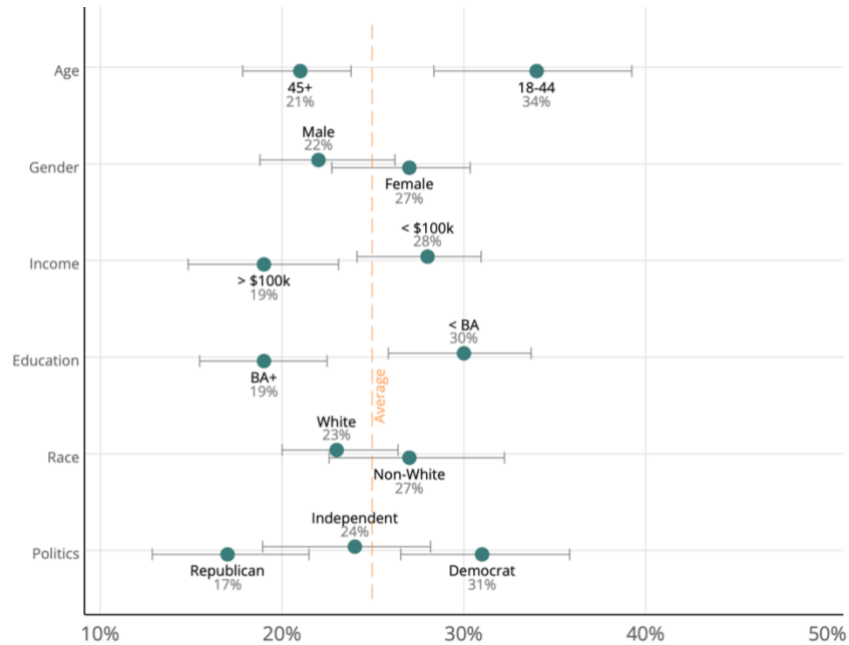
Notes: This figure shows the percent of respondents in the control sample that prefer taxing unsold gains versus taxing only at sale (Q31). Bars indicate 95% confidence intervals.

Figure 2: Percent Preferring Taxing Unsold Gains in Other Assets



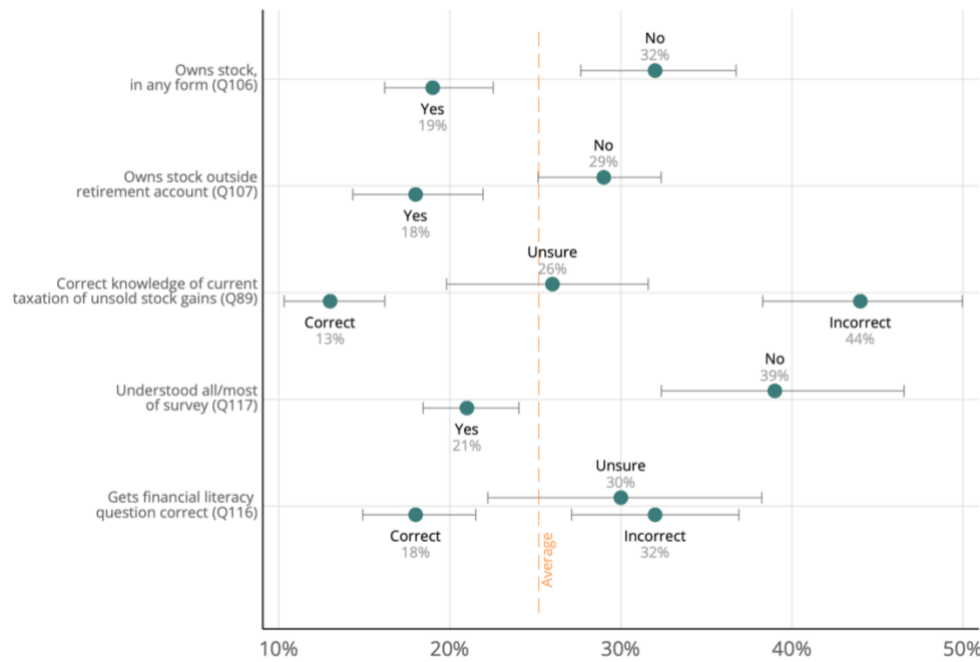
Notes: This figure shows the percent of respondents in the control sample that prefer taxing unsold gains versus taxing only at sale for assets other than stocks. Bars indicate 95% confidence intervals.

Figure 3: Percent Preferring Taxing Unsold Stock Gains by Demographic Group



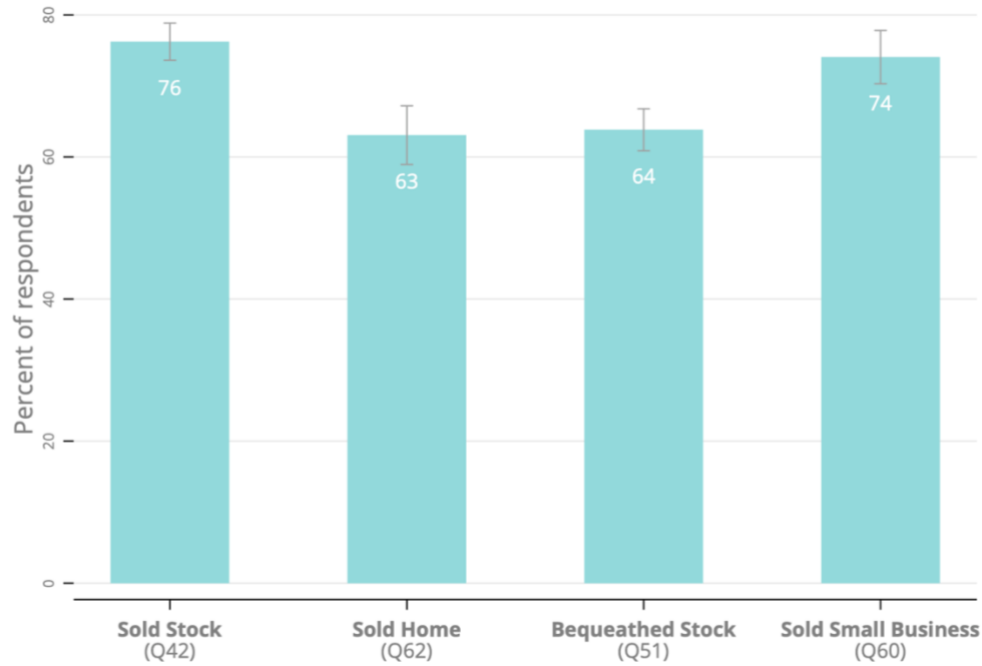
Notes: This figure shows the preference for taxing unsold gains (Q31), by demographic group. Control treatment only. Bars indicate 95% confidence intervals. “Average” refers to the average preference in the full control treatment. See Appendix Table 5, column (1) for coefficients.

Figure 4: Percent Preferring Taxing Unsold Stock Gains by Other Respondent Attributes



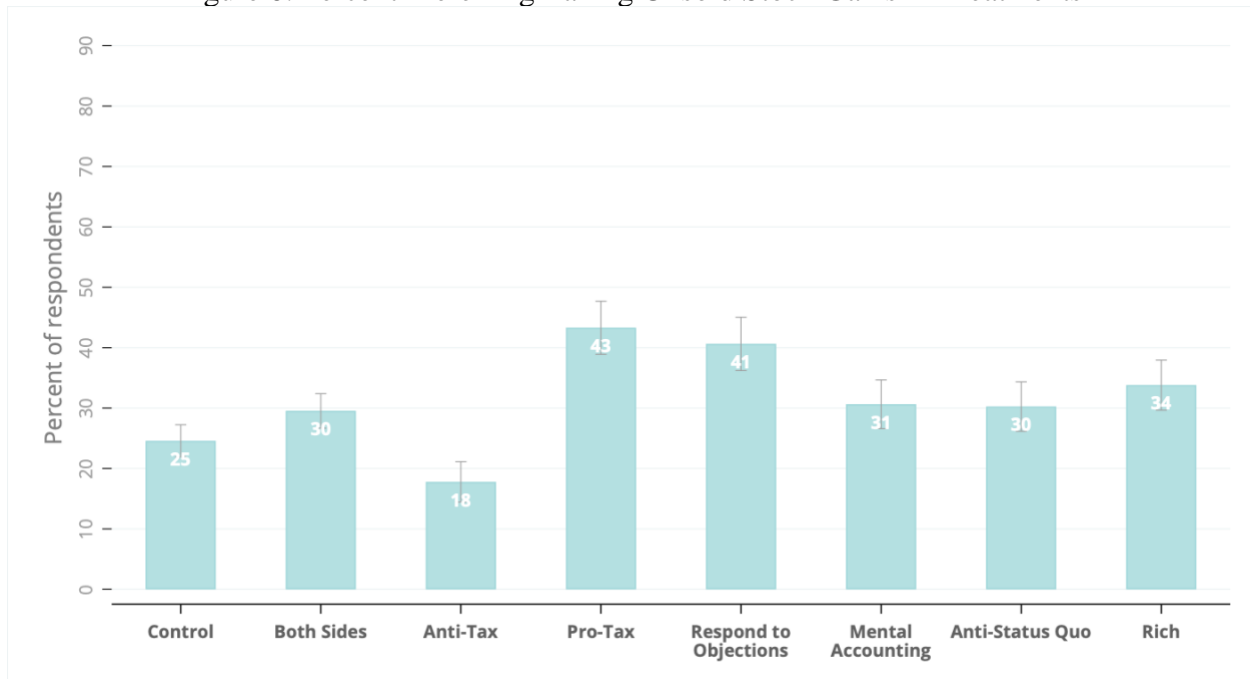
Notes: This figure shows the preference for taxing unsold gains (Q31), by other respondent attributes. Control treatment only. Bars indicate 95% confidence intervals. “Average” refers to the average preference in the full control treatment. See Appendix Table 4 for a similar analysis that includes demographic controls.

Figure 5: Percent Preferring Taxing Sold or Transferred Assets vs. Never Taxing Those Gains



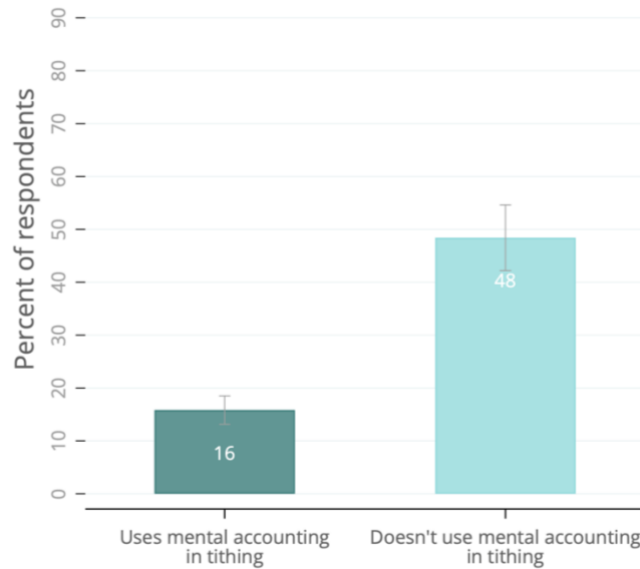
Notes: This figure shows respondents' preferences for taxing gains in various sold or transferred assets when given the alternative that gains would never be taxed. Control treatment only. Bars indicate 95% confidence intervals.

Figure 6: Percent Preferring Taxing Unsold Stock Gains in Treatments



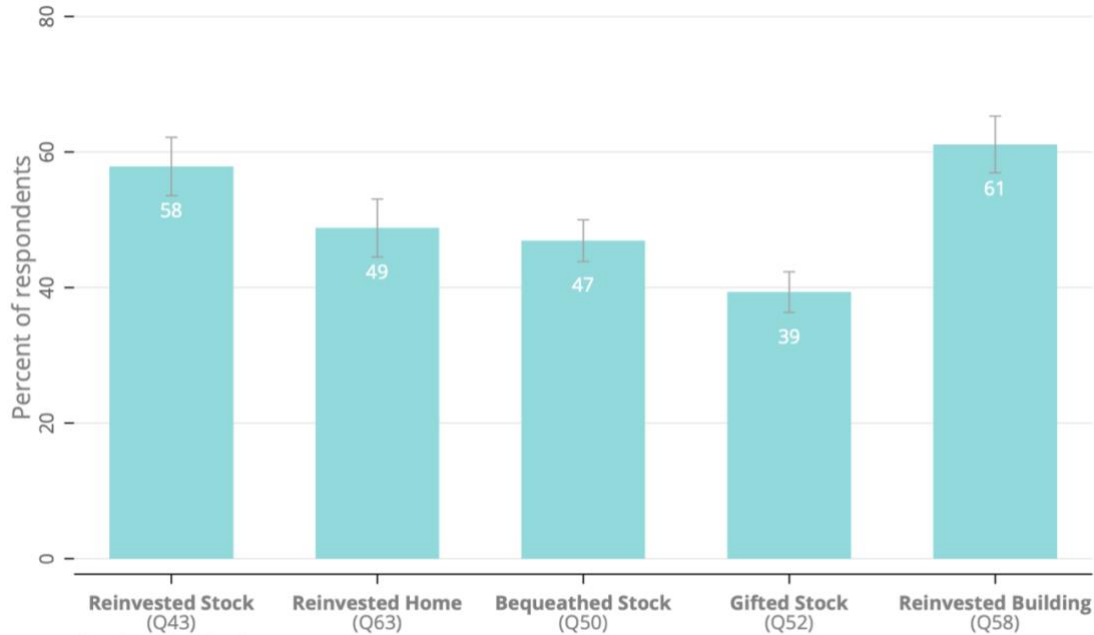
Note: This figure shows the percent of respondents that prefer taxing unsold stock gains in each treatment (Q31). Bars indicate 95% confidence intervals.

Figure 7: Percent Preferring Taxing Unsold Stock Gains by Use of Mental Accounting in Tithing



Note: The figure shows the percent of respondents who prefer to tax unsold stock gains (Q31) broken down by whether that respondent uses mental accounting—i.e., tithes only out of wages and not out of the unsold stock gains—in responding to the tithing question (Q37).

Figure 8: Percent Preferring to Tax Reinvested or Transferred Gains Now vs. at Future Sale



Note: In each scenario, assets in this figure are being sold or transferred. Bars indicate the percent of respondents who would prefer to tax gains now upon this sale or transfer rather than wait until the new or transferred asset is sold in the future. Control treatment only. Bars indicate 95% confidence intervals.

Table 1: Sample Characteristics

	U.S. Population	Control	Treatments	Robustness Survey
Male	0.49	0.48	0.49	0.49
Age 18-34	0.30	0.29	0.31	0.30
Age 35-44	0.16	0.16	0.16	0.16
Age 45-54	0.16	0.15	0.16	0.16
Age 55-64	0.17	0.18	0.16	0.17
Age 65	0.21	0.22	0.21	0.21
Less than \$25k income	0.17	0.17	0.17	0.17
\$25k-\$50k income	0.20	0.19	0.21	0.20
\$50-\$75k income	0.17	0.17	0.16	0.16
\$75-\$100k income	0.12	0.13	0.12	0.12
Over \$100k income	0.34	0.34	0.34	0.34
HS or less	0.38	0.24	0.25	0.27
Some college or more	0.62	0.77	0.75	0.73
Employed full/part time	0.59	0.57	0.58	0.56
Is married	0.53	0.55	0.55	0.50
White	0.60	0.67	0.67	0.68
Hispanic	0.19	0.12	0.14	0.11
Black	0.12	0.12	0.11	0.12
Asian	0.06	0.06	0.06	0.06
Other	0.04	0.02	0.03	0.04
Republican	0.28	0.29	0.29	0.30
Independent	0.40	0.32	0.32	0.35
Democrat	0.31	0.38	0.39	0.35
Owns stock in any form	0.55	0.59	0.58	0.59
Owns home	0.66	0.67	0.67	0.66

Notes: The table lists the share in each demographic subcategory in the general U.S. population, in the control sample, in all persuasion treatments combined, and in the Robustness Survey. See Appendix C for sources of U.S. population numbers.

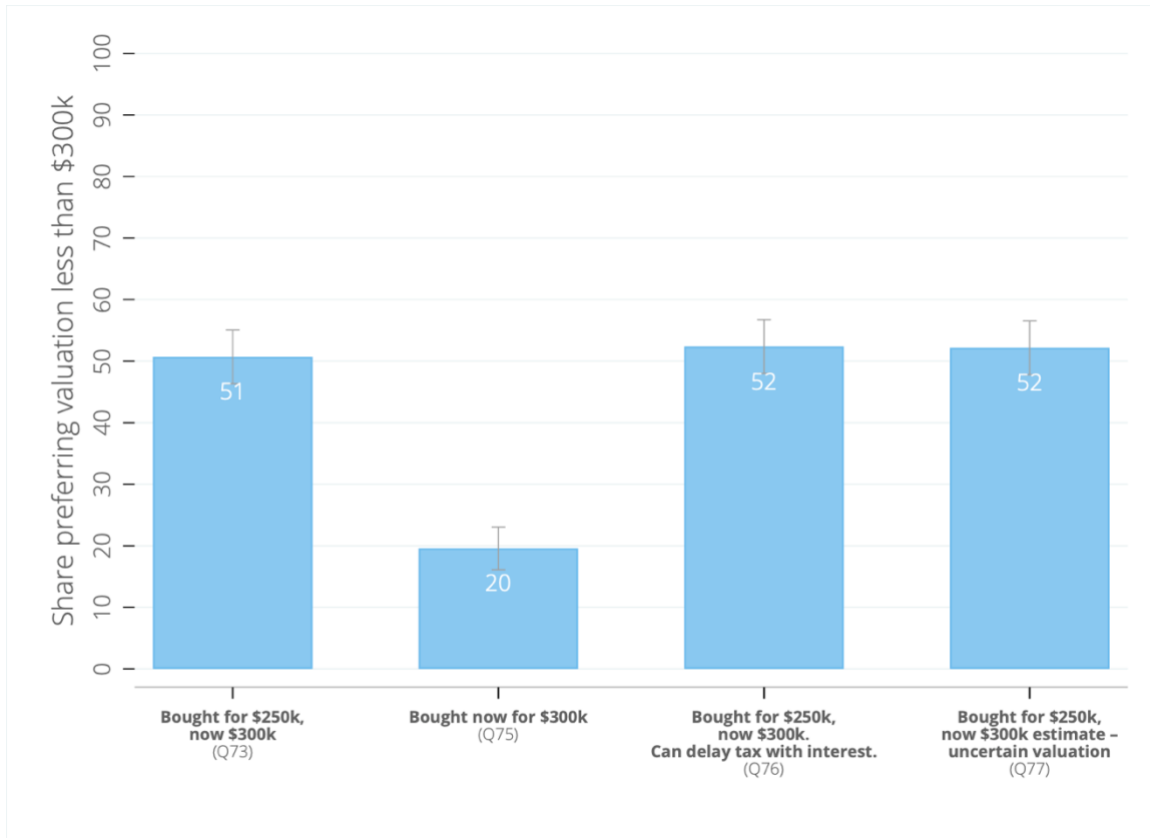
Table 2: Effect of Treatments on Preference for Taxing Unsold Stock Gains

	(1)	(2)
Both Sides	4.95** (1.99)	
Anti-Tax	-6.79*** (2.18)	
Pro-Tax	18.71*** (2.61)	
Respond to Objections	16.05*** (2.62)	
Mental Accounting	6.05** (2.46)	
Anti-Status Quo	5.67** (2.49)	
Rich	9.22*** (2.51)	
Control	24.58*** (1.36)	
Unsold Wording Robustness Check		-0.37 (2.68)
Simplified Wording Robustness Check		-1.23 (2.61)
Robustness Benchmark		22.97*** (1.85)
Observations	4964	1493
R^2	0.024	0.000

Notes: This table shows the treatment effects on the preference for taxing unsold stock gains (Q31). The outcome variable is an indicator for preferring taxing unsold gains multiplied by 100, so that effects are in percentage terms. Effects are relative to the Control (column (1)) or Robustness Benchmark (column (2)) at the bottom of the table. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Figures

Appendix Figure 1: Percent of Respondents Preferring Property Tax Valuation at Less than Fair Market Value



Note: This figure shows the percent of respondents preferring to tax a home at less than a \$300,000 property tax valuation in each of four scenarios. The scenarios are as follows (left to right): (1) House was bought last year for \$250,000, and now comparable houses are worth \$300,000; (2) A nearly identical house next door is bought this year for \$300,000; (3) Same as (1) except policy allows delaying of tax on appreciation until sale, with interest; and (4) House was bought last year from \$250,000, and now the government estimates a valuation of \$300,000, but “home prices in her neighborhood were all over the map.” For full survey text, see Appendix A. Bars indicate 95% confidence intervals. Control treatment only.

Appendix Tables

Appendix Table 1: Attentiveness Check - Effect of Survey Length on Preferences in Head-to-Head Survey Responses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Tax unsold gains at death > When heirs sell (Q50)	Tax unsold gains at death > Never tax (Q51)	Tax unsold gains when gifted > When recipient sells (Q52)	Tax unsold stock gains > At sale, both paired with tax on wages (Q54)	Tax unsold stock gains each year > At sale (Q82)	Tax unsold gains this year > Tax at sale at a higher rate (Q91)	Tax unsold gains this year > Raise everyone's income tax (Q92)
<i>Panel A: Effect of number of questions seen prior to this question</i>							
	-0.34 (0.57)	0.61 (0.54)	-0.04 (0.56)	0.36 (0.48)	-0.04 (0.16)	-0.06 (0.17)	0.23 (0.18)
<i>Panel B: Effect of sum of median time for all respondents on questions prior to this question</i>							
	-0.71 (0.91)	0.93 (0.87)	-0.44 (0.90)	0.61 (0.77)	-0.18 (0.45)	-0.34 (0.49)	0.56 (0.52)
Number of observations	2012	2013	2012	2012	2011	2008	2011
Percent respondents supporting taxing unsold gains in question	45.03	66.67	39.76	24.95	24.27	33.52	46.99

Note: This table shows how the length of the survey prior to the recipient seeing particular questions affects their answers to those questions. We measure the effect on all seven of the head-to-head questions in the latter half of the survey (Q50 and after) that were shown to all respondents in the control and both-sides treatments. Variation in length arises from survey questions being shown to random subsets of respondents in these two surveys. Survey length is measured in two ways: the number of questions seen prior to seeing the question (Panel A) and the amount of time spent prior to seeing the question (Panel B). Timing is measured using the sum of the median length of time (among all respondents) spent on each question shown to the respondent prior to the question of interest. Coefficients are from bivariate regressions measuring the effect of either timing or number of questions on the response to the survey question. Regressions include controls for which treatment was received. Robust standard error in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 2: Sample Characteristics, Detailed by Treatment

	U.S. Population	Both Sides	Anti- Tax	Pro- Tax	Respond to Obj.	Mental Acc.	Anti -SQ	Rich
Male	0.49	0.47	0.52	0.50	0.50	0.48	0.51	0.48
Age 18-34	0.30	0.32	0.29	0.29	0.33	0.31	0.29	0.30
Age 35-44	0.16	0.14	0.17	0.18	0.16	0.18	0.15	0.18
Age 45-54	0.16	0.17	0.16	0.15	0.14	0.16	0.17	0.15
Age 55-64	0.17	0.18	0.17	0.16	0.15	0.16	0.17	0.15
Age 65	0.21	0.19	0.21	0.22	0.23	0.20	0.23	0.21
Less than \$25k	0.17	0.18	0.17	0.15	0.15	0.19	0.18	0.18
\$25k-\$50k	0.20	0.23	0.19	0.19	0.20	0.19	0.22	0.20
\$50-\$75k	0.17	0.17	0.17	0.16	0.17	0.15	0.16	0.16
\$75-\$100k	0.12	0.11	0.11	0.11	0.15	0.14	0.12	0.13
Over \$100k	0.34	0.32	0.37	0.38	0.33	0.34	0.32	0.34
HS or less	0.38	0.27	0.26	0.24	0.22	0.26	0.25	0.27
Some college or more	0.62	0.73	0.75	0.77	0.78	0.74	0.75	0.73
Employed	0.59	0.56	0.58	0.63	0.60	0.59	0.59	0.56
Is married	0.53	0.55	0.56	0.55	0.54	0.54	0.55	0.54
White	0.60	0.66	0.68	0.65	0.67	0.69	0.67	0.67
Hispanic	0.19	0.15	0.14	0.13	0.15	0.13	0.13	0.14
Black	0.12	0.11	0.10	0.12	0.09	0.12	0.11	0.11
Asian	0.06	0.07	0.07	0.07	0.06	0.04	0.07	0.05
Other	0.04	0.02	0.02	0.04	0.04	0.02	0.03	0.04
Republican	0.28	0.31	0.28	0.26	0.32	0.32	0.28	0.27
Independent	0.40	0.31	0.34	0.33	0.34	0.29	0.34	0.33
Democrat	0.31	0.38	0.38	0.41	0.35	0.39	0.39	0.41
Owns any form of stock	0.55	0.55	0.61	0.61	0.59	0.57	0.61	0.55

Notes: The table lists the percent in each demographic subcategory in the general U.S. population and in each treatment. Sources for the U.S. population are in Appendix C. Control sample demographics are shown in Table 1.

Appendix Table 3: Robustness Survey Characteristics

Variable	National Average	Robustness Benchmark	Unsold Wording Robustness Check	Simplified Wording Robustness Check
Male	0.49	0.47	0.49	0.51
Age 18-34	0.30	0.29	0.29	0.32
Age 35-44	0.16	0.18	0.17	0.14
Age 45-54	0.16	0.15	0.16	0.18
Age 55-64	0.17	0.16	0.16	0.18
Age 65	0.21	0.23	0.22	0.19
Less than \$25k income	0.17	0.19	0.17	0.15
\$25k-\$50k income	0.20	0.19	0.20	0.21
\$50-\$75k income	0.17	0.16	0.16	0.17
\$75-\$100k income	0.12	0.12	0.12	0.12
Over \$100k income	0.34	0.33	0.35	0.35
HS or less	0.38	0.28	0.27	0.27
Some college or more	0.62	0.72	0.73	0.73
Employed full/part time	0.59	0.55	0.57	0.57
Is married	0.53	0.50	0.48	0.53
White	0.60	0.69	0.70	0.65
Hispanic	0.19	0.08	0.11	0.12
Black	0.12	0.13	0.10	0.13
Asian	0.06	0.05	0.06	0.06
Other	0.04	0.04	0.03	0.04
Republican	0.28	0.30	0.28	0.30
Independent	0.40	0.35	0.33	0.37
Democrat	0.31	0.35	0.39	0.33
Owns stock (incl. retirement)	0.55	0.59	0.58	0.60
Owns home	0.66	0.65	0.68	0.65

Notes: The table lists the percent in each demographic subcategory in the general U.S. population and in each treatment in the Robustness Survey. Sources for the U.S. population are in Appendix C.

Appendix Table 4: Effects of Personal Attributes on Preference for Taxing Unsold Gains – with Demographic Controls

	(1)	(2)	(3)	(4)	(5)
Owens stock in any form (Q106)	-6.33* (3.39)				
Owens stock outside retirement account (Q107)		-5.44* (2.92)			
Correct knowledge of current taxation of unsold stock gains (Q89)			-28.19*** (3.35)		
Unsure of current taxation of unsold stock gains (Q89)			-20.89*** (4.28)		
Understood all/most of survey (Q117)				-13.42*** (4.06)	
Gets financial literacy question correct (Q116)					-7.45** (3.22)
Unsure of financial literacy question (Q116)					-0.14 (4.80)
Constant	5.59** (14.69)	5.52** (14.77)	22.75*** (14.42)	16.28*** (15.02)	9.70** (14.68)
Observations	1009	1009	1008	1009	1009
R^2	0.082	0.081	0.153	0.091	0.084

Notes: This table shows how respondent attributes (stock ownership, knowledge of current taxation of unsold stock gains, understanding of survey, and correct understanding of time value of money) are associated with the preference for taxing unsold gains (Q31). The outcome variable is multiplied by 100, so coefficients are interpretable as percentage points. Control survey only. Demographic controls are included in each column and are indicators for education, race, age, gender, political ideology, and income. There is an indicator for each subcategory offered in the survey (see Appendix A). Robust standard error in parentheses. See Figure 4 for a similar analysis without demographic controls. * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 5: Effects of Demographics on Preference for Taxing Unsold Gains

Over 45 years old	-12.33*** (3.21)	-11.64*** (3.24)
Less than \$100k income	4.62 (2.97)	2.62 (3.05)
Democrat	14.67*** (3.30)	14.30*** (3.29)
Independent	5.95* (3.22)	6.25* (3.20)
Some college or more	-9.31*** (3.56)	-7.02** (3.67)
Male	0.38 (2.81)	1.19 (2.82)
White	-0.87 (3.01)	-0.79 (2.99)
Owens stock directly or in retirement account		-8.97*** (3.18)
Observations	1009	1009
R^2	0.050	0.059

Note: This table shows how demographics are associated with the preference for taxing unsold gains (Q31) when they are included together. The outcome variable is multiplied by 100, so coefficients are interpretable as percentage points. Robust standard error in parentheses. Control treatment only. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table 6: Effect of Treatments on Preferring Taxing Unsold Stock Gains,
by Stock Ownership

Owns stock	-12.83*** (2.82)
Both sides treatment	9.09*** (3.30)
Both sides treatment * Owns stock	-8.31** (4.06)
Three pro-tax treatments	19.12*** (3.07)
Three pro-tax treatments * Owns stock	-9.68** (3.80)
Anti-tax treatment	-6.32 (3.86)
Anti-tax treatment * Owns stock	-0.58 (4.59)
Anti-status quo treatment	8.86** (4.25)
Anti-status quo treatment * Owns stock	-4.83 (5.18)
Rich treatment	11.86*** (4.03)
Rich treatment * Owns stock	-5.86 (5.07)
Control	32.20*** (2.31)
Observations	4963
R^2	0.061

Notes: This table shows the different impacts that the treatments have on the preference for taxing unsold gains (Q31), by whether respondents own any stocks or not. The outcome variable is multiplied by 100, so coefficients are interpretable as percentage points. Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Appendix Table 7: Effects of Treatments on Reasons to Oppose Taxing Unsold Stock Gains

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Haven't consumed	Variability	Liquidity	No control over tax	Taxes too high	Unsure of gains	Investment not concluded	Calculations time-consuming
Both Sides	0	3	0	4	-4	-1	-5**	1
	-2	-2	-2	-2	-3	-2	-2	-2
Anti-Tax	2	6***	2	8***	11***	5*	5**	7***
	-2	-2	-2	-3	-3	-3	-2	-3
Pro-Tax	-9***	-5**	-11***	-9***	-10***	-9***	-16***	-8***
	-3	-3	-3	-3	-3	-3	-3	-3
Respond to Objections	-4	0	-1	2	0	-2	-11***	-9***
	-3	-3	-3	-3	-3	-3	-3	-3
Mental Accounting	-4	3	0	4	0	0	-2	2
	-3	-2	-3	-3	-3	-3	-2	-3
Anti-Status Quo	-4	4*	0	2	3	-2	-4	0
	-3	-2	-3	-3	-3	-3	-3	-3
Rich	-8***	-4*	-22***	-6**	-14***	-6**	-12***	-9***
	-3	-3	-3	-3	-3	-3	-3	-3
Control	75***	75***	74***	67***	48***	66***	76***	67***
	-2	-2	-2	-2	-2	-2	-2	-2
Observations	4499	4497	4497	4498	4498	4496	4499	4496
R^2	0.006	0.007	0.026	0.012	0.019	0.006	0.02	0.013

Note: This table shows treatment effects on choosing each reason for not preferring to tax unsold gains. See Q34 for the full reason text. Dependent variables are an indicator for agreeing with a reason multiplied by 100, so that coefficients can be interpreted as percentage points. Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Appendix Table 8: Effect of Treatments on Reasons to Support Taxing Unsold Stock Gains

	(1) Wages also taxed	(2) Target the rich	(3) More tax revenue	(4) Gains are income	(5) Delayed taxes otherwise
Both Sides	-2 (3)	2 (3)	0 (3)	-2 (3)	1 (3)
Anti-Tax	-12***	-7**	-10***	-9***	-8***
Pro-Tax	14***	11***	14***	11***	9***
Respond to Objections	11***	3 (3)	6* (3)	5* (3)	7** (3)
Mental Accounting	4 (3)	2 (3)	2 (3)	5* (3)	-3 (3)
Anti-Status Quo	3 (3)	-2 (3)	-1 (3)	0 (3)	1 (3)
Rich	12***	9***	10***	17***	5*
Control	42***	41***	50***	39***	58***
Observations	4500	4500	4500	4499	4500
R^2	0.023	0.01	0.018	0.021	0.01

Note: This table shows treatment effects on choosing each reason for preferring to tax unsold gains. See Q34 for the full reason text. Dependent variables are an indicator for agreeing with a reason multiplied by 100. Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Appendix Table 9: Effect on Preference for Taxing Unsold Stock Gains of Stated Reasons

	(1)	(2)	(3)	(4)
Advantages of taxing unsold gains				
Gains are income	13.95*** (4.00)	10.96*** (3.98)	13.82*** (4.06)	11.16*** (4.03)
Wages also taxed	6.42* (3.61)	5.45 (3.50)	6.43* (3.62)	5.71 (3.52)
Target the rich	5.28 (3.41)	3.91 (3.41)	3.32 (3.62)	2.23 (3.63)
More tax revenue	3.94 (2.98)	2.66 (2.91)	4.18 (3.05)	2.84 (3.02)
Delayed tax otherwise	2.11 (2.69)	2.13 (2.63)	3.18 (2.77)	2.78 (2.73)
Disadvantages of taxing unsold gains				
Investment not concluded	-39.11*** (4.51)	-35.63*** (4.46)	-38.17*** (4.64)	-35.22*** (4.58)
Calculations time-consuming	-5.89* (3.27)	-4.52 (3.18)	-5.54 (3.38)	-4.33 (3.30)
Variability	-4.16 (3.72)	-3.88 (3.61)	-4.21 (3.74)	-4.05 (3.63)
No control over tax	-1.04 (3.22)	-1.16 (3.10)	-1.22 (3.27)	-1.2 (3.16)
Liquidity	-4.30 (4.15)	-4.20 (4.08)	-3.35 (4.24)	-3.19 (4.18)
Haven't consumed	-2.11 (4.12)	-0.89 (3.98)	-2.12 (4.13)	-1.26 (4.02)
Taxes too high	1.56 (2.77)	2.09 (2.72)	2.91 (3.00)	3.63 (2.96)
Unsure of gains	-1.56 (3.27)	-0.33 (3.23)	-2.84 (3.33)	-1.53 (3.32)
Other				
Includes unsold gains when tithing		12.65*** (3.89)		12.12*** (3.97)
Correct knowledge: current tax of unsold stock gains		-11.62*** (2.81)		-10.70*** (2.96)
Demographic Controls	No	No	Yes	Yes
Observations	743	742	743	742
R^2	0.347	0.378	0.378	0.403

Note: This table shows how much each structured reason (Q34) statistically predicts a preference for taxing unsold gains. Each row is an indicator; the outcome variable is multiplied by 100 so coefficients are interpretable as percentage points. Columns (2) and (4) adds tithing from unsold stock gains (Q37) and correct knowledge of current law (Q89) as covariates. Columns (3)–(4) add demographic controls: education, age, income, race, gender, and political ideology using an indicator for each subcategory offered in the survey (see Appendix A). Robust SE in parentheses. Control treatment only. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table 10: Effect of Second Mental Accounting Measure on Preference for Taxing
Unsold Gains

	Chose taxing unsold gains over taxing at sale (Q31)
Will sell dividend for vacation	-1.72 (1.50)
Will sell gains for vacation	4.37*** (1.38)
Constant	24.16*** (1.69)
Observations	4964
R^2	0.026

Note: Includes fixed effects for each treatment. Robust standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 11: Words Most Associated with Opposing and Supporting Taxing Unsold Gains

Opposing		Supporting	
word	t-stat	word	t-stat
actual	-6.50	refund	3.07
sell	-6.32	wont	2.96
realize	-5.96	get	2.86
gain	-5.79	still	2.18
complicate	-5.49	good	2.11
yet	-5.18	share	2.07
market	-5.18	run	1.92
stock	-4.70	think	1.86
loss	-4.64	late	1.82
investment	-4.64	must	1.76
little	-4.36	hes	1.76
hand	-4.29	decide	1.74
sense	-4.02	already	1.74
cash	-3.90	back	1.73
may	-3.79	help	1.72
anything	-3.63	worry	1.64
unrealized	-3.63	future	1.59
fluctuate	-3.63	whether	1.46
something	-3.54	everyone	1.45
hasnt	-3.34	within	1.42

Note: This table compares the most distinctive words used by those preferring taxing gains at sale versus those preferring taxing unsold gains. Responses are from the free-form reasoning question (Q32). See Appendix C for more details on language processing. Control treatment only.

Appendix A – Primary Survey Text

Yale University Consent Form

You are being invited to take part in a research study. The following information explains why the research is being done and what the research will involve. Please take the time to read the following information carefully.

Purpose of the Research:

We are a non-partisan group of researchers at Yale University and the University of Michigan. Our goal is to learn about people's views about what tax policy should be, particularly how to tax owners of corporate stocks. Your answers will help contribute to our knowledge about these views. You must be eighteen (18) years of age or older to participate.

Study Procedures:

Your participation involves completing a survey, which will take approximately 20 to 30 minutes. You will receive payment if you complete the survey and pass our survey quality checks, which use sophisticated statistical methods to detect incoherent and rushed responses.

Responding without adequate effort may result in your responses being flagged for low quality, and you may not receive your payment.

Crucial for the success of our research is that you **read each question carefully and answer honestly**. If you don't know the answer, take your best guess. However, please be sure to spend enough time reading and understanding the questions.

Potential Risks:

There are no known or anticipated risks to you for participating other than a possible loss of confidentiality.

Confidentiality:

All of your responses will be anonymous. Only the researchers involved in this study and research overseers will have access to the information you provide. Your responses will be recorded and stored online. The researchers will not know your name, and no identifying information will be connected to your survey answers in any way. The survey is therefore anonymous. However, your account is associated with a number that the panel administrator must see in order to compensate you, and in some cases these numbers may be associated with public profiles which could, in theory, be searched. For this reason, though the researchers will not be looking at anyone's public profiles, the fact of your participation in the research (as opposed to your actual survey responses) is considered confidential rather than truly anonymous.

Contact Information:

If you have any questions about this study, you may contact:

**Professor Zachary Liscow
Principal Investigator
Yale Law School**

zachary.liscow@yale.edu

If you would like to talk with someone other than the researchers to discuss problems or concerns, to discuss situations in the event that a member of the research team is not available, or to discuss your rights as a research participant, you may contact:

Yale University Human Subjects Committee
203-785-4688
human.subjects@yale.edu

Additional information is available at <https://your.yale.edu/researchsupport/human-research/research-participants/rights-researchparticipant>.

Voluntary and Informed Consent:

Participation in this study is completely voluntary. You are free to decline to participate, to end participation at any time for any reason, or to refuse to answer any question without penalty.

1. Do you agree to participate in this study?

☐ **YES**, I would like to participate in this study, and I confirm that **I am a U.S. resident** and that **I am at least 18 years old**.

☐ **NO**, I would not like to participate.

I. Demographic Questions

2. How many people usually live in your household? Please include yourself in the count.

1 (Just me); 2; 3; 4; 5; 6; 7; 8+

3. What was your total household income, before taxes, in 2019?

*Less than \$13,000; \$13,000 to \$14,999; \$15,000 to \$19,999; \$20,000 to \$24,999;
\$25,000 to \$34,999; \$35,000 to \$49,999; \$50,000 to \$74,999; \$75,000 to \$99,999;
\$100,000 to \$149,999; \$150,000 to \$199,999; \$200,000 and over*

4. Are you currently a student?

Yes, enrolled full time; Yes, enrolled part time; No

5. What is your age?

18-24; 25-34; 35-44; 45-54; 55-64; 65-74; 75+

6. In what state or territory do you live?

*Alabama; Alaska; American Samoa; Arizona; Arkansas; California; Colorado;
Connecticut; Delaware; District of Columbia; Florida; Georgia; Guam; Hawaii; Idaho;
Illinois; Indiana; Iowa; Kansas; Kentucky; Louisiana; Maine; Maryland; Massachusetts;
Michigan; Minnesota; Mississippi; Missouri; Montana; Nebraska; Nevada; New*

Hampshire; New Jersey; New Mexico; New York; North Carolina; North Dakota; Northern Mariana Islands; Ohio; Oklahoma; Oregon; Pennsylvania; Puerto Rico; Rhode Island; South Carolina; South Dakota; Tennessee; Texas; U.S. Virgin Islands; Utah; Vermont; Virginia; Washington; West Virginia; Wisconsin; Wyoming; Other

7. In what zip code do you live?

Free response

8. Do you consider yourself Hispanic or Latino/a?

Yes; No

9. How would you describe yourself? Please pick all that apply.

Asian; Black or African American; White or Caucasian; Other (please specify); Prefer not to say

10. What is your gender?

Male; Female; Other; Prefer not to say

11. What is the highest degree or level of education you have completed? If you are currently enrolled, please indicate the highest degree you have received.

Less than a high school diploma; High school degree or equivalent (e.g. G.E.D.); Some college, no degree; Associate degree; Bachelor's Degree; Master's degree; Professional degree (e.g. M.D., J.D.); Doctorate

12. Are you currently employed?

Yes, part-time; Yes, full-time; No

13. Are you currently married?

Yes; No

14. What do you consider to be your political affiliation?

Republican; Democrat; Independent; Other

15. Which of the following best describes your political beliefs?

Strongly liberal; Moderately liberal; Slightly liberal; Neither liberal nor conservative; Slightly conservative; moderately conservative; Strongly conservative

16. Did you vote in the presidential election in 2020?

Yes; No; Unsure

II. Introductory Materials

17. Many questions in this survey ask how you think “stocks” should be taxed. When a person owns stock, that means that she owns a small piece, or “share,” of a company that can increase or decrease in value depending on how well the company is doing.

In this survey, we are talking about stock in large companies like Apple or Disney. Specifically, many people in our questions buy stock in Grocery Corporation (abbreviated

“Grocery Co.”). Grocery Co. is not a real company, but assume that it is a large grocery store chain, whose stock trades in the stock market.

After someone buys stock, she will own it until she sells it. She might sell it a few days after buying it, or wait several years or even decades, to sell it.

Assume that this stock is *not* part of a retirement account like an IRA or 401(k).

Comprehension Questions

18. To start, consider questions about how two policies would affect taxpayers.

Policy 1: People must pay income tax on increases in the value of their stocks **each year**, even if they **do not sell** the stocks.

Suppose that Pamela bought stock in Grocery Co. last year. It increases in value by \$50,000 this year. She **does not sell** the stock.

Under this policy, does Pamela need to pay income tax this year on the \$50,000 increase in the value of the stock?

Yes; No [89% correct]

[If respondents answer yes: “**Correct**. Under this policy, Pamela **must pay** income tax this year on the \$50,000 increase in her stock value, even though she **does not sell** the stock.”]

[If respondents answer no: “**Incorrect**. Under this policy, Pamela **must pay** income tax this year on the \$50,000 increase in her stock value, even though she **does not sell** the stock.”]

19. Policy 2: Instead of Policy 1, people only have to pay income tax on increases in the value of their stocks **when they sell** those stocks.

Suppose that Pamela bought stock in Grocery Co. last year. It increases in value by \$50,000 this year. She **does not sell** the stock.

Under this policy, does Pamela need to pay income tax this year on the \$50,000 increase in the value of the stock?

Yes; No [89% correct]

[If respondents answer yes: “**Incorrect**. Under this policy, Pamela **does not pay** income tax on the increase in the value of her stock **until she sells it later**.”]

[If respondents answer no: “**Correct**. Under this policy, Pamela **does not pay** income tax on the increase in the value of her stock **until she sells it later**.”]

20. To help improve our tax policy, we want to know your opinion on how people should be taxed.

In the upcoming questions, we will tell you about people in various situations and propose a policy for how they should be taxed.

Carefully consider each set of facts and proposed policies. Then tell us your opinion. There are no right or wrong answers.

[High asset treatment does not get the remainder of this screen]

Each proposed policy would apply to everyone in similar situations to the person in the question.

For example, a question might say: “Sam bought a car” and propose that Sam pay a 1% sales tax. In that example, you should assume that the policy would require **all car buyers** to pay a 1% sales tax.

21. [for high-asset survey]

We are specifically interested in knowing your opinion of how wealthy people should be taxed. In particular, we are asking you about the taxation only of those who have over \$10 million in wealth, which puts them in the top 1% of American households.

The policies we ask you to consider will apply only to these wealthy Americans, and not to people with less than \$10 million in wealth. For example, a question might say: “Sam bought a car” and propose that Sam pay a 1% sales tax. In that example, you should assume that the policy would require **all car buyers with at least \$10 million of wealth** to pay a 1% sales tax.

[Going forward, a box will appear in all policy scenarios, saying: “**Remember: this policy [“these policies” if multiple policies] would only apply to people with over \$10 million of wealth.**”]

III. Persuasion Treatments

[Some respondents are randomized into one of these treatments. They will be videos, with the actor in the video randomized across participants.]

22. Template (3 screens):

[Keep names constant here, so no name randomization.]

[1st Screen (text)]:

Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.

This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She **does not sell** any of her stock.

Proposed Policy: Mary pays income tax **this year** on the \$50,000 increase in her stock, even though she **does not sell** it.

If her stock later goes back down in value, these taxes are refunded. And, because her gains have already been taxed, she will not have to pay tax on them again when she sells her stock.

[Text unique to each treatment, introducing the video(s). See below.]

[2nd screen (text and video)]:

Written:

Simplified Facts: Mary’s stock goes up by \$50,000 this year, but she does not sell.

Proposed Policy: Mary pays tax this year on the \$50,000 increase.

Video:

[text from below]

Written:

The video is approximately one minute. The “next” button will appear when it is finished playing.

[3rd screen (text)]:

Thank you for watching. One of the next two questions is on this policy, and some subsequent questions are on variants of this policy.

23. A. Persuasion Treatment 1: Pro-Tax Policy Stakes

Please click the “next” button to see a video of an expert describing arguments for this proposed policy.

[Video: <https://youtu.be/4N4CQKuIdR8> and <https://youtu.be/GXutbEHDDto>]

“This tax is fair. It ensures that everyone—including the rich—pays their fair share, on-time. And it would provide revenue the government can use to strengthen the economy and help its citizens.

Most people are taxed on their *entire income* every year, because their income comes from wages. But there’s a loophole for people owning stocks—who are mostly rich. They are *not* taxed on increases in their stock each year. Instead, they pay tax only when they choose to sell the stock later. And, of course, people prefer paying taxes far in the future to paying today. This means that Mark Zuckerberg can see his Facebook stock go up by **billions of dollars** without paying **any** tax. This is unfair because, by contrast, someone who earns *wages* must pay taxes now. This tax closes that loophole. It makes sure that everyone pays tax when they get richer, whether that income comes from wages or increases in stock value.”

24. B. Persuasion Treatment 2: Anti-Policy Stakes

Please click the “next” button to see a video of an expert describing arguments against this proposed policy.

[Video: <https://youtu.be/U913pj0LdmM> and <https://youtu.be/gCySTiw7Chc>]

“This is an unfair and radical tax. It would mean taxing something that is just not income. If investors have not sold their stocks, they have not gotten the benefit of their investment yet. They do not even know how much they will eventually make or lose. Worse, investors would have to pay tax even though they have no control over the amount they earn in the stock market. Because the stock market is volatile, they could end up with big surprise tax bills. And some people would actually have to sell their stocks to pay the tax. This would all make the tax system even more complicated and time consuming. Finally, it would punish middle-class families who have stocks they are depending on and job-creators whose investments benefit all of us.”

25. C. Persuasion Treatment 3: Both-Sides of Mark-to-Market Taxation of Stocks

Please click the “next” button to see two videos of experts describing arguments for and against this proposed policy.

[Randomize order of videos (with closed captions) of arguments – one is read by Zach; the other is read by Audrey, and both will record a version of each side.]

One person says this: [pro-tax policy – link in Treatment 1]

Another person says this: [anti-tax policy – link in Treatment 2]

26. D. Persuasion Treatment 4: Responding to objections on mechanics of MTM

Text at bottom of first page:

Please click the “next” button to see a video of an expert describing arguments in favor of this proposed policy.

[Video: <https://youtu.be/xD1yn81EAe4> and <https://youtu.be/JRVbxd815cQ>]

“Taxing stock gains each year, even if the stocks are not sold, is a good policy for four reasons.

First, this tax is fair. Compare Mary to John, who makes \$50,000 in wages. *John* must pay tax on his wages this year. Like John, Mary got richer by \$50,000 and this tax ensures they *both* pay tax this year on that amount.

Second, this tax is steady over time, since people pay tax gradually as stock increases occur. By contrast, waiting to tax people until they sell produces big tax bills because, by then, they have multiple years of gains to pay tax on.

Third, this tax is simple to calculate because of technology today. People would get a statement each year telling them how much their stocks increased, so that they know how much tax they owe.

Fourth, this tax is easy to pay. Usually people can pay the tax from their bank account. But they always have another option. They can pay the tax simply by selling some of their stock that has gone up in value. And selling has very low fees in today’s markets.”

27. E. Persuasion Treatment 5: Mental accounting → Horizontal Equity

Please click the “next” button to see a video of an expert providing information relating to this proposed policy.

[Video: <https://youtu.be/2OMSzklnRMgGVE> and <https://youtu.be/DoeUbbj9oSA>]

“Mary’s \$50,000 increase in stock value should be taxed the same as if she’d made \$50,000 from her job. Economically, there’s **no meaningful difference**. So, the tax should be the same. Yes, she has not sold her stock *yet*. But Mary can sell her stock at any time, with no fees. This would give her the *same amount of cash as the job*.

Here's a different angle: imagine Mary did not have the stock gain, but *had* earned \$50,000 from her job. **That would not really change her position.** Mary could just invest her \$50,000 of wages in the stock, **and she'd be in the exact same position as now.**

Whether Mary makes \$50,000 from her job or from seeing her stocks go up, the bottom line is the same: she's \$50,000 better off. And she can spend it or invest it. So, Mary should be taxed the same in either case."

28. F. Anti-status-quo treatment

Please click to see a video of an expert comparing this policy to how other assets are taxed today.

[Video: <https://youtu.be/RMFmt-qUz7g> and https://youtu.be/n_g6g3zSClo]

"Today, under current law, many assets are taxed on changes in value each year, even if they are not sold.

- For example, when people buy certain assets that are similar to stocks, they must pay income tax on increases in the value of those assets each year, even if they do not sell the asset.
- Similarly, when people buy a commercial building, they can reduce their taxes each year to account for the building wearing out and losing value over time, even though they do not sell the building."

IV. Stock Module

A. Baseline Stock Questions

[Randomize the order of the quasi-control and quasi-treatment.]

29. (Quasi-Control) Tax Sold Stock

Facts: Suppose that Amy bought stock in Grocery Co. at the end of last year.

This year, Amy's stock in Grocery Co. goes up in value by \$50,000 ["\$1 million" for rich treatment]. At the end of this year, she **sells** her stock in Grocery Co.

Proposed Policy: Amy pays income tax **this year** on the \$50,000 ["\$1 million" for rich treatment] increase in stock value.

Do you support or oppose this policy? [The order of the "support" and "oppose" is always randomized.]

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose

[The order "support" and "oppose" is always randomized in the answer choices.]

[74% support (all results are from the control treatment only, unless otherwise noted)]

30. (Quasi-Treatment) Tax Unsold Stock

Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.

This year, Mary's stock in Grocery Co. goes up in value by \$50,000 ["\$1 million" for rich treatment]. She **does not sell** any of her stock.

Proposed Policy: Mary pays income tax **this year** on the \$50,000 ["\$1 million" for rich treatment] increase in her stock, even though she does not sell it.

If Mary's stock later goes back down in value, these taxes are refunded. And, because her gains have already been taxed, she will not have to pay tax on them again when she sells her stock.

Do you support or oppose this policy?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [43% support]

31. **Baseline Head-to-head choice**

Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.

This year, Mary's stock in Grocery Co. goes up in value by \$50,000 [\$1 million for rich treatment]. She **does not sell** any of her stock.

The government is choosing between two policies for taxing people like Mary. **Which do you prefer?** [make each option clickable]

Option 1

- Mary pays income tax on increases in her stock only **when she sells** her stock in the future.

Option 2 [25% support]

- Mary pays income tax **this year** on the increase in her stock, even though she **does not sell** it.
- If her stock later goes back down in value, these taxes are refunded. And, because gains have already been taxed, she will not have to pay tax on them again when she sells her stock.

B. Free-form Reasoning

32. [If chose MTM option]: You said that you prefer for Mary to pay income tax on the increase in the value of her stock **this year**, even though she **does not sell** it.

Why do you prefer taxing her this way?

Free response [14.92 word average response]

[If chose non-MTM option]: You said that you prefer for Mary to pay income tax on increases in the value of her stock only **when she sells** it in the future.

Why do you prefer taxing her this way? [20.09 word average response]

Free response

C. Structured Reasoning

33. [broken up into three screens: 2 for disadvantages, 1 for advantages; in randomized order. Always have either all the advantages or all the disadvantages first.] [Randomize these in for control & both-sides: 75% of people do get it, and 25% don't. For all other treatments, all respondent receive it.]

Thank you for giving us your reasoning. Now, we want to learn-more about which factors mattered to you as you decided which policy to choose. On the next three screens, you will see potential advantages and disadvantages of taxing ["people with more than \$10 in wealth on their" for rich]stock increases each year, even if the stock is not sold. Please tell us whether you agree or disagree that these are important advantages or disadvantages of this tax policy.

34. In my opinion, an **important disadvantage** of taxing unsold stock increases each year ["for those who have over \$10 million of wealth"] is that...

- a. *...it creates a lot of a variability in how much tax a person must pay each year since stocks are volatile. [75% agree]*
- b. *...people are taxed even though they do not have control over the amount that they earn in the stock market. [67% agree]*
- c. *...people are taxed even though they do not have money to pay the tax if they have not sold the stocks. [74% agree]*
- d. *...it would be time-consuming for people to calculate gains and losses each year to pay taxes. [67% agree]*
- e. *...people are taxed before they get the benefit of their investment: being able to use the money from a sale to pay for their expenses. [75% agree]*
- f. *...people should not be taxed until they conclude their investment by selling the stock. [76% agree]*
- g. *...taxes on stocks and investments are too high already and this policy would further discourage investment. [48% agree]*
- h. *...instead of waiting for a sale, the policy taxes investors before they know how much they will eventually make on it. [60% agree]*

In my opinion, an **important advantage** of taxing unsold stock increases each year ["for those who have over \$10 million of wealth" for rich] is that...

- a. *...wages and other forms of income are taxed every year, and this policy treats stock increases the same way: it taxes them each year. [42% agree]*
- b. *...increases in stock prices mostly benefit the rich, and we should pursue more ways like this policy to make the rich pay more tax. [41% agree]*
- c. *...it creates more tax revenue for the government to use to improve the economy and help its citizens. [50% agree]*
- d. *...people whose stock goes up in value get richer, so they have income and should be taxed. [39% agree]*

e. ...without it, stockowners can delay paying tax for years. [58% agree]

Agree; Unsure; Disagree

35. Loss stock

Facts: Suppose that Ned bought stock in Grocery Co. at the end of last year.

This year, Ned's stock in Grocery Co. goes down in value by \$50,000 ["\$1 million" for rich]. He **does not sell** any of his stock.

The government is choosing between two policies for taxing people like Ned. **Which do you prefer?**

Option 1

- Ned reduces his income taxes to reflect decreases in his stock value only **when he sells** his stock in the future.

Option 2 [28% support]

- Ned reduces his income taxes **this year** to reflect the decrease in stock value, even though he **does not sell** his stocks.
 - If Ned's stocks go up in value in the future, he will also pay taxes on those increases each year, even if he **does not sell** his stock.

36. Attention Question

To facilitate our research on decision-making, we are interested in knowing certain factors about you, the decision maker. Specifically, we are interested in whether you have taken the time to read the directions; if not, then some of our questions that rely on changes in the instructions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the question below and simply put the slider to 15. Thank you very much.

Bearing in mind the instructions above, out of 100 adults in the U.S., how many are currently paying any income tax at all?

Slider, 0-100, in increments of 5. [65% out of all people who saw this question answered it correctly and were able to continue.]

D. Mental Accounting Questions

[Include for all treatments.]

37. Tithing:

The survey has asked you several questions about how stocks should be taxed.

The next few questions are not about taxes, but instead about what you would do in various situations, if you owned stock.

Suppose you belong to an organization that requires members to give 10% of each year's income to certain charities. You intend to give exactly 10% to these charities.

Imagine that your salary is \$80,000 this year. In addition, you own some stocks, which go up by \$20,000 this year. You **do not sell** any of the stock.

How much would you donate to the charities this year?

\$8,000 [71%]; \$10,000 [25%]; *Other amount: please specify* [4%]

“Mailbox Effect” [Order of next 2 questions randomized and on different pages]

[First screen: “Suppose that the pandemic is over and you have long wanted to take a family vacation that costs about \$2,000, but your budget has been too tight to take the trip.”]

[Second screen: “Suppose again that the pandemic is over and you have long wanted to take a family vacation that costs about \$2,000, but your budget has been too tight to take the trip.”]

38. Suppose, in addition, [if question appears second: replace “, in addition,” with “, instead of the stock from the last screen,”] that you own stock in Grocery Co.

- It goes up by \$2,000 this year.
- Assume you will owe no tax whenever you sell your stock.

Would you sell \$2,000 worth of your Grocery Co. and pay for the vacation?

Yes [37%]; *No*

39. Suppose, in addition, [if question appears second, replace “, in addition,” with “, instead of the stock from the last screen,”] that you own stock in Beverages Inc., which is another company whose stock trades in the stock market.

- The stock price is flat this year, but it pays a \$2,000 dividend check to you at the end of the year. A dividend is cash that a company pays to its shareholders.
- Assume you will owe no tax on it.

Would you use the \$2,000 dividend check and pay for the vacation?

Yes [71%]; *No*

Transition to next module

40. The survey now asks more questions about how stocks should be taxed.

Many questions going forward are about policies for taxing stocks that have gone up in value but have **not been sold**.

Assume that these policies are like the ones you saw earlier for taxing unsold stock in two ways:

1. If the stocks later go back down in value, the taxes paid earlier are refunded.
2. Because the increases in people’s stocks have already been taxed, they will not have to pay tax on them again when they sell their stock.

After reading, please proceed to the next screen.

D. Consumption Tax Intuitions

Borrowing and Freed-up Income

[Randomized into control & both-sides. Everyone else gets this.]

41. Facts: Suppose that Christina bought stock in Grocery Co. at the end of last year. The value of the stock goes up by \$50,000 [\$1 million] this year.

Christina does not want to sell her stock. But she does want to use some of the increase in the value of her stock to pay for personal expenses.

So, instead of selling, she takes out a loan from a bank. She borrows \$40,000 [\$800,000], promising the bank that it can take her stock if she does not repay the loan.

She then spends the \$40,000 [\$800,000] on her personal expenses. She **does not sell** any of the stock.

The government is choosing between two policies for taxing Christina. **Which do you prefer?**

Option 1

Christina pays income tax on increases in her stock only **when she sells** her stock in the future.

Option 2 [36% support]

Christina pays income tax on increases in her stock if **she sells** it or if she **uses the stock to borrow**.

So, she pays income tax **this year** on \$40,000 [\$800,000] of her stock increase.

Other Consumption Questions

[Everyone gets this]

42. Facts: Stephanie bought stock in Grocery Co. at the end of last year.

This year, Stephanie's stock in Grocery Co. goes up in value by \$50,000 [\$1 million]. At the end of this year, she **sells** her stock in Grocery Co.

The government is choosing between two policies for taxing people like Stephanie. **Which do you prefer?**

Option 1 [76% support]

Stephanie pays income tax **this year** on the \$50,000 [\$1 million].

Option 2

Stephanie **never** pays income tax on the \$50,000 [\$1 million].

[Randomized into control & both-sides. Everyone else gets this.]

43. Facts: Amelia bought stock in Grocery Co. at the end of last year.

This year, Amelia's stock in Grocery Co. goes up in value by \$50,000 [\$1 million]. At the end of this year, she **sells** her stock in Grocery Co.

Amelia **reinvests** the money in a different stock.

The government is choosing between two policies for taxing people like Amelia. **Which do you prefer?**

Option 1

Amelia pays income tax **this year** on the \$50,000 [\$1 million].

Option 2 [58% support]

Amelia pays income tax on the \$50,000 [\$1 million] only **when she sells the new stock and spends the money** in the future.

[Randomized into control and both sides. Everyone else gets this.]

44. Facts: George earns \$50,000 in his job this year as wages. He spends \$40,000 of it on personal expenses and saves \$10,000 [\$200,000].

The government is choosing between two policies for taxing George. **Which do you prefer?**

Option 1

George pays income tax **this year** on his \$50,000 [\$1 million] of wages.

Option 2 [72% support]

George pays income tax **this year** on the \$40,000 [\$800,000] of his wages he spent.

He pays income tax on the \$10,000 [\$200,000] he saved only **when he spends it** in the future.

E. Equivalent Liquidity Pairing

[Randomize in block to control and 1000-person both-sides; exclude from other treatments.]

45. [in a box with red font] Facts: Suppose that Megan purchased \$30,000 of stock in Grocery Co. and \$80,000 of stock in Beverages Inc. at the end of last year.

This year, Megan's stock in Grocery Co. goes up in value by \$50,000, while her stock in Beverages Inc. is flat. This is shown in the table:

	Megan's Purchase Price (End of Last Year)	Current Value (End of This Year)
Grocery Co.	\$30,000	\$80,000
Beverages Inc.	\$80,000	\$80,000

We will ask you two questions regarding these facts, which will be shown in this same box.
[Randomize order of the next two questions]

46. [Box with facts at the top]

Suppose that ["instead," if shown second] Megan **sells** her stock in Grocery Co. at the end of this year for \$80,000. Recall that this is \$50,000 more than she bought it for.

She **does not sell** her stock in Beverages Inc.

So, at the end of this year, she has \$80,000 in cash from the stock sale and \$80,000 in stocks.

Do you support or oppose Megan having to pay income tax this year on the increase in the value of her stocks?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [72% support]

47. [Box with facts at the top]

Suppose that [“instead,” if shown second] Megan **sells** her stock in Beverages Inc. at the end of this year for \$80,000, which is what she paid for it originally.

She **does not sell** any of her Grocery Co. stock.

So, at the end of this year, she has \$80,000 in cash from the stock sale and \$80,000 in stocks.

Do you support or oppose Megan having to pay income tax this year on the increase in the value of her stocks?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [42% support]

F. Liquidity Offered through the Tax System

[Randomize in one of the next two questions to control & 1000-person both-sides.]

48. Facts: Suppose Jessica bought stock in Grocery Co. at the end of last year. This year, the value of the stock goes up by \$50,000 [\$1 million]. She **does not sell** any of the stock.

The government is choosing between two policies for taxing people like Jessica. **Which do you prefer?**

Option 1

- Jessica pays income tax on increases in her stock only **when she sells** her stock in the future.

Option 2 [28% support]

- Jessica can decide whether to:
 - 1. Pay income tax **this year** on the \$50,000 [\$1 million] increase in stock value.
 - OR
 - 2. Wait to pay tax **until she sells the stock** in the future. But if she waits, she'll have to pay interest on the delayed tax.

49. Facts: Suppose that Ashley bought stock in Grocery Co. four years ago.

For the first two years, Ashley's stock in Grocery Co. went up by \$150,000 [\$3 million] each year. Last year and this year, it went down by \$50,000 [\$1 million] each year. She **does not sell** any of her stock.

The government is choosing between two policies for taxing people like Ashley. **Which do you prefer?**

Option 1

- Ashley pays income tax on increases in her stock only **when she sells** her stock in the future.

Option 2 [27% support]

- Ashley pays income tax **each year** on increases in the value of stock, even if she does not sell.
 - But—to reduce the variability of how much tax people owe—the tax is based on her **average** change in stock value over the last 4 years.
 - So, Ashley would owe income tax this year on \$50,000 [\$1 million], which is the average of the changes in her stock value over the last 4 years.

H. Taxing upon Gift or Death

[Include in control, both-sides, and rich. Exclude from other treatments.]

50. Facts: Edna bought stock in Grocery Co. at the end of last year. This year, Edna's stock in Grocery Co. goes up in value by \$50,000 ["\$1 million" for rich treatment]. She **does not sell** any of her stock.

Unfortunately, at the end of this year, Edna dies.

The government is choosing between two policies for taxing Edna's \$50,000 ["\$1 million" for rich treatment] increase in stock value. **Which do you prefer?**

Option 1 [47% support]

- Income tax is paid **this year** from Edna's bank account, before it is given to her heirs.
- But Edna's heirs **never** pay income tax on the \$50,000 ["\$1 million" for rich treatment].

Option 2

- **No income tax** is paid from Edna's bank account.
- But Edna's heirs pay income tax on the \$50,000 ["\$1 million" for rich treatment] **when they sell the stock** in the future.

51. Facts (which are the same as the previous facts, but note that the policy options are different): Edna bought stock in Grocery Co. at the end of last year. This year, Edna's stock in Grocery Co. goes up in value by \$50,000 ["\$1 million" for rich treatment]. She **does not sell** any of her stock.

Unfortunately, at the end of this year, Edna dies.

The government is choosing between two policies for taxing Edna's \$50,000 ["\$1 million" for rich treatment] increase in stock value. **Which do you prefer?**

Option 1 [64% support]

- Income tax is paid **this year** from Edna's bank account, before it is given to her heirs.
- But Edna's heirs **never** pay income tax on the \$50,000 ["\$1 million" for rich treatment].

Option 2

- **No one ever pays** income tax on the gains ["\$1 million" for rich treatment].

52. Facts: Jason bought stock in Grocery Co. at the end of last year. This year, Jason's stock in Grocery Co. goes up in value by \$50,000 ["\$1 million" for rich treatment]. He **does not sell** any of his stock.

At the end of this year, Jason gives the Grocery Co. stock to his daughter.

The government is choosing between two policies for taxing Jason and his daughter. **Which do you prefer?**

Option 1 [39% support]

- Jason pays income tax **this year** on the \$50,000 ["\$1 million" for rich treatment] increase in stock value.
- Jason's daughter **never** pays income tax on \$50,000 ["\$1 million" for rich treatment].

Option 2

- Jason **never** pays income tax on the \$50,000 ["\$1 million" for rich treatment] increase in stock value.
- Jason's daughter pays income tax on the \$50,000 ["\$1 million" for rich treatment] **when she eventually sells the stock** in the future.

I. Taxing Expected Gains

[Randomized in to control & 1000-person both-sides. Excluded from other treatments.]

53. The prices of stocks go up and down, and gains from stocks may quickly disappear. Nevertheless, while the stock market has good and bad years, it has grown an average of 8% per year for the past 100 years.

Now consider the following facts and proposed policy:

[same screen]

Facts: Suppose that Ashley bought Grocery Co. stock at the end of last year. It increased in value by 10% this year. She **does not sell** the stock.

Erica bought Beverages Inc. stock at the end of last year. It increased in value by 5% this year. She **does not sell** the stock.

The government is choosing between two policies for taxing people like Ashley and Erica. **Which do you prefer?**

Option 1

- Ashley and Erica pay income tax on increases in their stock only **when they sell** their stock in the future.

Option 2 [20% support]

- To provide people certainty about their tax bills, the government will always assume that stock owners earn an 8% profit on their stocks.
- So Ashley and Erica pay income tax **this year** on 8% of the value of their stocks, even though they **do not sell**.

[Everyone gets this.]

54. Facts: Suppose that George makes \$50,000 [“\$1 million” for rich treatment] in wages this year.

Suppose also that Larry’s Grocery Co. stock goes up by \$50,000 [“\$1 million” for rich treatment] in value, but he **does not sell** it.

The government is choosing between two policies for taxing people like Larry and George. **Which do you prefer?**

Option 1

George pays income tax **this year** on his wages.

Larry pays income tax on the increase in his stock only **when he sells** it in the future.

Option 2 [23% support]

George pays income tax **this year** on his wages.

Larry pays income tax **this year** on the increase in his stock, even though he **does not sell** it.

J. “Equivalent” Wealth vs. Income Taxation Variants

[Randomize in one of the next two questions to control & 1000-person both-sides, and exclude from other treatments.]

55. Facts: Jennifer bought stock in Grocery Co. for \$500,000 at the end of last year.

At the end of this year, the stock is worth \$550,000, an increase in value of \$50,000. She **does not sell** any of the stock.

Proposed Policy: Jennifer’s state government requires her to pay income tax at the end of the year on the \$50,000 increase in value. The tax rate is 11%, so that she would pay \$5,500 in taxes. She does not pay tax on the \$50,000 increase in stock value when she sells the stock.

Do you support or oppose this policy?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [37% support]

56. Facts: [same as for income tax variant]

Proposed Policy: Jennifer’s state government requires her to pay a wealth tax at the end of the year. The tax is 1% of the value of stock at the end of the year (\$550,000), so that she would pay \$5,500 in taxes. She does not pay tax on the \$50,000 increase in stock value when she sells the stock.

Do you support or oppose this policy?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [36% support]

V. Other Asset Module

[The order of these questions is randomized, after the first orienting line. We first randomize the order of the pairs of questions, and then we randomize the order within each pair. Randomize in this module to control & both-sides; exclude from other treatments.]

57. You have been asked about taxation regarding stocks. Now you will be asked about the taxation of other types of assets that people own, along with stocks.

Many questions are about policies for taxing assets that have gone up in value but have **not been sold**. Assume that these policies are like the one you saw earlier on taxing unsold stock in two ways:

1. If the assets later go back down in value, the taxes paid earlier are refunded.
2. Because the increases in people's assets have already been taxed, they will not have to pay tax on them again when they sell their asset.

A. Commercial Real Estate

[Next 2 in anti-status quo treatment]

58. (Control - carryover)

Facts: Suppose that last year George bought an apartment building as an investment. This year—although George does not make any improvements to the building—its value rises by \$50,000 because of rising real estate values in the neighborhood. He **sells** the building and uses the cash to buy another apartment building.

The government is choosing between two policies for taxing George. **Which do you prefer?**

Option 1

George pays income tax on the \$50,000 only **when he sells the second building** in the future.

Option 2 [61% support]

George pays income tax **this year** on the \$50,000.

59. (Treatment)

Facts: Suppose that last year Alex bought an apartment building as an investment. This year—although Alex does not make any improvements to the building—its value rises by \$50,000 because of rising real estate values in the neighborhood. He **does not sell** the building.

The government is choosing between two policies for taxing Alex. **Which do you prefer?**

Option 1

Alex pays income tax on the increase in the value of his building only when he sells it in the future.

Option 2 [21% support]

Alex pays income tax this year on the increase in the value of his building, even though he does not sell it.

B. Private Business

60. (Control – never-tax)

Facts: Suppose last year Richard bought a small business. This year—although Richard does not make any new investments in the business—the value of his business rises by \$50,000. He sells the business.

The government is choosing between two policies for taxing Richard. **Which do you prefer?**

Option 1 [74% support]

Richard pays income tax this year on the \$50,000.

Option 2

Richard never has to pay income tax on the \$50,000.

61. (Treatment)

Facts: Suppose last year James bought a small business. This year—although James does not make any new investments in the business—the value of his business rises by \$50,000. He does not sell the business.

The government is choosing between two policies for taxing people like James. **Which do you prefer?**

Option 1

James pays income tax on the increase in the value of his small business only when he sells it in the future.

Option 2 [29% support]

James pays income tax this year on the increase in the value of his small business, even though he does not sell it.

C. Personal Real Estate

62. (Control – never-tax)

Facts: Suppose Justin bought his home three years ago. Although Justin does not make any improvements to the home, its value rises by \$50,000 because of rising real estate values in the neighborhood. This year, he sells his home.

The government is choosing between two policies for taxing people like Justin. **Which do you prefer?**

Option 1 [63% support]

Justin pays income tax this year on the \$50,000.

Option 2

Justin never has to pay income tax on the \$50,000.

63. (Control - carryover) [always after previous question]

Facts: Suppose Justin bought his home three years ago. Although Justin does not make any improvements to the home, its value rises by \$50,000 because of rising real estate values in the neighborhood. This year, he sells his home and uses the money to buy a new home.

The government is choosing between two policies for taxing people like Justin. **Which do you prefer?**

Option 1

Justin pays income tax this year on the \$50,000.

Option 2 [49% support]

Justin pay income tax on the \$50,000 only when he sells the new home in the future.

64. (Treatment)

Facts: Suppose last year Danielle bought her home. This year—although Danielle does not make any improvements to the home—its value rises by \$50,000 because of rising real estate values in the neighborhood. She does not sell it.

The government is choosing between two policies for taxing people like Danielle. Which do you prefer?

Option 1

Danielle pays income tax on the increase in the value of her home only when she sells it in the future.

Option 2 [18% support]

Danielle pays income tax this year on the increase in the value of her home, even though she does not sell it.

D. Art

65. (Treatment)

Facts: Suppose last year Alice bought a valuable painting, which she hangs in her home. This year, the value of her painting rises by \$50,000, but she does not sell it.

The government is choosing between two policies for taxing people like Alice. Which do you prefer?

Option 1

Alice pays income tax on the increase in the value of her art only when she sells it in the future.

Option 2 [16% support]

Alice pays income tax this year on the increase in the value of her art, even though she does not sell it.

E. Publicly-Traded Stocks

[Randomize this in along with the rest of the other-assets module, but have after the single assets, but before the all assets.]

66. Facts: Stephanie bought stock in Grocery Co. at the end of last year.

This year, Stephanie's stock in Grocery Co. pays her a dividend of \$50,000. At the end of this year, she sells her stock in Grocery Co.

The government is choosing between two policies for taxing people like Stephanie. **Which do you prefer?**

Option 1 [78% support]

Stephanie pays income tax this year on the \$50,000.

Option 2

Stephanie never pays income tax on the \$50,000.

F. All Assets

67. (Treatment)

Facts: Suppose that this year, Robert's assets increase in value by \$50,000 in total. His assets include: some corporate stocks, a business he runs, a painting, an apartment building he owns, and his home. He does not sell any of them.

The government is choosing between two policies for taxing Robert. **Which do you prefer?**

Option 1

Robert pays income tax on the increase in the value of his assets only when he sells them in the future.

Option 2 [22% support]

Robert pays income tax this year on the increase in the value of his assets, even though he does not sell any of them.

G. Other Questions

[Randomize in one of these questions into control & both-sides. Include both questions in anti-status quo Exclude from others.]

68. [For people who did not receive other asset module] You have been asked about taxation regarding stocks. Now you will be asked a question about the taxation of another type of asset that people own.

69. (Depreciation)

Facts: Suppose that last year Edward bought an apartment building that he now rents out to others. Buildings wear out over time in relatively predictable ways. The government

estimates that this year, wear and tear decreases the value of the building by \$50,000. He **does not sell** the building.

The government is choosing between two policies for taxing people like Edward. **Which do you prefer?**

Option 1

Edward **cannot reduce** the income that he is taxed on **this year** to account for his expected losses from wear and tear.

Option 2 [58% support]

Edward **reduces** the income that he is taxed on **this year** to account for his expected losses from wear and tear, even though he **does not sell** the building.

70. (Original Issue Discount)

Facts: Suppose that last year Andrea loaned a company \$25,000 for 5 years with an annual interest rate of 5%. Unlike most loans, however, the company **does not pay interest this year in cash**. Instead, the company will pay Andrea the interest all at once in 5 years.

The government is choosing between two policies for taxing people like Andrea. **Which do you prefer?**

Option 1 [15% support]

Andrea pays income tax **this year** on the 5% interest, even though she has not received the cash yet.

Option 2

Andrea pays income tax only in the **fifth year**, when she gets her interest in cash.

[Randomize this into the control and both-sides. Include for all in other treatments.]

71. Suppose that the government adopts an income tax on increases in the value of stocks each year, even if people **do not sell** the stocks. Would that be a fair tax?

Yes [27%]; *No*

VI. Property Tax & Paper Gains Module

[Randomized in as a whole module for control. Exclude from other treatments.]

72. You have been asked several questions about the income taxation of [“various assets,” “stock” depending whether got other asset module]. You will now be asked questions about the property taxation of people’s homes, based on these facts:

Facts: Michelle owns her home. It is in a subdivision with essentially identical homes. Suppose that she bought her home last year for \$250,000. The value of her home increases from \$250,000 last year to \$300,000 this year (based on sales prices of the essentially identical homes next door).

These facts apply to the following few screens and will be shown at the top of the screen in a blue box.

73. (blue box on top)

Suppose that Michelle's local government places a property tax on her home. Michelle's property taxes will be a fixed percentage of the government's "valuation" of the property.

Policy Question: What valuation should Michelle's local government use when taxing her property?

(slider from "\$200,000 or less" to "\$400,000 or more", in 5,000 increments)

[Mean: \$273,185]

74. [if chooses less than \$300,000] On the previous screen, you chose a valuation of less than \$300,000. Why did you make that choice?

Free form [51% chose less than \$300,000]

75. (blue box on top)

Suppose that Anne purchased a nearly identical house next to Michelle's for \$300,000 this year.

Again, suppose that Anne and Michelle's local government places a property tax on Anne's home. Anne's property taxes will be a fixed percentage of the government's "valuation" of the property.

Policy Question: What valuation should her local government use when taxing Anne's property this year?

(slider from "\$200,000 or less" to "\$400,000 or more," in 5,000 increments)

[Mean: \$290,059]

B. Liquidity

76. (blue box on top)

Suppose that, if the government values Michelle's house at more than the \$250,000 she paid for it, she has two options. She can pay the full amount of property tax this year. Or she can delay paying the "extra" tax due—on the portion of the valuation above \$250,000—until she sells her house. If Michelle waits, she will pay interest on the tax she delayed paying.

Policy Question: What valuation should her local government use when taxing Michelle's property this year?

(slider from "\$200,000 or less" to "\$400,000 or more," in 5,000 increments)

[Mean: \$273,843]

77. Facts: Abigail owns her home. Suppose that she bought her home last year for \$250,000.

Abigail's house is in a neighborhood with homes of quite different sizes and values. This year, home prices in her neighborhood were all over the map. Some houses went up in value, while others fell.

The government estimates—based on sales of somewhat similar houses—that Abigail’s house increased in value from \$250,000 to \$300,000 this year.

Suppose that Abigail’s local government places a property tax on her home. Abigail’s property taxes will be a fixed percentage of the government’s “valuation” of the property.

Policy Question: What valuation should Abigail’s local government use when taxing her property?

(slider from “\$200,000 or less” to “\$400,000 or less,” in 5,000 increments)

[Mean: \$275,494]

78. This is a question about how the tax system works today. Does your state currently impose a limit on how much the government’s property tax valuations can rise each year?

Yes [20%]; No [10%]; Unsure [70%]

VII. What Rate Should Apply to Mark-to-Market on Stocks

[Randomize in the block of the next 3 questions to the control & both-sides. Include for all in rich. Exclude from other treatments.]

79. **Facts:** Samantha bought stock in Grocery Co. at the end of last year. The value of the stock goes up by \$50,000 [\$1 million for rich] this year. She **does not** sell any of the stock.

George bought stock in Beverages Inc. at the end of last year. The value of the stock goes up by \$50,000 [\$1 million for rich] this year. He then **sells** the stock.

Suppose that current law is to tax increases in the value of stocks each year, even if the stocks are not sold. So both Samantha and George will have to pay income tax on the \$50,000 [\$1 million for rich] increase in the value of their stocks.

You will now be asked three questions on the tax rate that Samantha and George should pay on the \$50,000 [\$1 million for rich] increase in their stock value given that law.

Recall that **Samantha did not sell her stock**, but **George did sell**.

The tax rate that Samantha should pay on the increase in the value of her stock should be:

Lower than the tax rate that George should pay [37%]; The same as the tax rate that George should pay [55%]; Higher than the tax rate that George should pay [8%]

[Randomize order of the next two]

80. [same screen] Suppose that Samantha also earns \$50,000 [\$1 million for rich] in wages.

How should the tax rate on wages and the tax rate on increases in the value of her stock compare? The tax rate on increases in the value of her stock should be:

Lower than the tax rate on her wages [29%]; The same as the tax rate on her wages [60%]; Higher than the tax rate on her wages [11%]

81. [same screen] Suppose that Samantha also earns \$50,000 [\$1 million for rich] in dividends from her Grocery Co. stock. Recall that dividends are cash a company pays to its shareholders.

How should the tax rate on dividends and the tax rate on increases in the value of her stock compare? The tax rate on increases in the value of her stock should be :

Lower than the tax rate on her dividends [23%]; The same as the tax rate on her dividends [69%]; Higher than the tax rate on her dividends [9%]

[Give everyone in all surveys this question]

82. You have already seen the next question. We are asking you again, now that you have thought about the issue some more:

Facts: Suppose that Kyle bought stock in Grocery Co. at the end of last year.

This year, Kyle's stock in Grocery Co. goes up in value by \$50,000. He **does not sell** any of his stock.

The government is choosing between two policies for taxing Kyle. **Which do you prefer?**

Option 1

Kyle pays income tax on increases in his stock only **when he sells** his stock in the future.

Option 2 [22% support]

Kyle pays income tax **this year** on the increase in his stock, even though he **does not sell** it.

VIII. Knowledge of Current Tax Law

[Everyone gets the intro and following 2 questions.]

83. You have answered several questions about how tax law should work. In the following questions, we are interested in your understanding of how tax law works today. In particular, we are asking about the taxation of stock in Grocery Co., which is not held in a retirement account

84. Suppose Mary owns Grocery Co. stock. This year, she receives \$50,000 [“\$1,000,000” for rich treatment] in dividends from the stock.

Under existing law, must Mary pay income tax this year on the \$50,000 [“\$1,000,000” for rich treatment] of dividends this year?

Yes [73%]; No [8%]; Unsure [18%]

85. Suppose Mary owns Grocery Co. stock. This year, the value of that stock increases by \$50,000 [“\$1,000,000” for rich treatment], and she **sells** it, but **reinvests** the proceeds in a different stock.

Under existing law, must Mary pay income tax this year on the \$50,000 [“\$1,000,000” for rich treatment]?

Yes [58%]; No [17%]; Unsure [25%]

[Next two questions: only control, both-sides, and rich get them; others don't]

86. Mary bought stock in Grocery Co. at the end of last year. This year, Mary's stock in Grocery Co. goes up in value by \$50,000 ["\$1,000,000" for rich treatment]. She **does not sell** any of her stock.

Unfortunately, at the end of this year, Mary dies.

Under existing law, must income tax be paid this year from Mary's assets on the \$50,000 ["\$1,000,000" for rich treatment] increase in stock value?

Yes [42%]; *No* [27%]; *Unsure* [30%]

87. Mary bought stock in Grocery Co. at the end of last year. This year, Mary's stock in Grocery Co. goes up in value by \$50,000 ["\$1,000,000" for rich treatment]. She **does not sell** any of her stock.

At the end of this year, Mary gives the Grocery Co. stock to her daughter Selma.

Under existing law, must Mary pay income tax this year on the \$50,000 ["\$1,000,000" for rich treatment] increase in stock value?

Yes [39%]; *No* [30%]; *Unsure* [30%]

[Only get next question if got depreciation question above, so that will be control and both-sides some of the time, and anti-status quo all of the time.]

88. Suppose that last year Edward bought an apartment building that he now rents out to others.

Buildings wear out over time in relatively predictable ways. The government estimates that this year, wear and tear decreases the value of the building by \$50,000 ["\$1,000,000" for rich treatment]. He **does not sell** the building.

Under existing law, may Edward reduce his income tax this year to reflect expected wear and tear on the building?

Yes [52%]; *No* [25%]; *Unsure* [24%]

[Everyone gets next question and follow-up]

89. Suppose Mary owns Grocery Co. stock. This year, the value of that stock increases by \$50,000, but she **does not sell** any of it.

Under existing law, must Mary pay income tax this year on the \$50,000 ["\$1,000,000" for rich treatment] increase?

Yes [28%]; *No* [49%]; *Unsure* [21%]

90. [If says "yes"] In the last question, you answered that, if Mary's stock goes up in value by \$50,000 ["\$1,000,000" for rich treatment] this year, but she **does not sell** any of it, she must pay tax on that increase this year.

This answer is **incorrect**.

Under current law, Mary pays income tax on increases in her stock **only when she sells** the stock. So, Mary does not pay income tax this year on it.

The survey now returns to questions about your views on what the law should be.

[If says “no” or did not answer or “unsure”] In the last question, [“you answered that” if answered or “one of the answer choices was that” if didn’t answer or answered unsure], if Mary’s stock goes up in value by \$50,000 [“\$1,000,000” for rich treatment] this year, but she **does not sell** any of it, she does not need to pay tax on that increase this year.

This answer is **correct**.

Under current law, Mary pays income tax on increases in her stock **only when she sells** the stock. So, Mary does not pay income tax this year on it.

The survey now returns to questions about your views on what the law should be.

IX. Other Mark-to-Market Questions

A. Revenue-Neutral Version of Baseline

[randomized order with next question]

91. [“The next two questions ask you to choose between two new taxes to meet the government’s general revenue needs:” if appears first”]

Suppose that the government must raise new revenue by choosing one of two policies. Both policies would raise the same amount of revenue. **Which do you prefer?**

Option 1 [32% support]

A new income tax on increases in the value of stocks each year, even if people **do not sell** the stocks.

- The tax rate is the **same as the current rate** for stock sales.

Option 2

A new income tax on increases in the value of stocks only on those who **do sell** their stocks.

- The new tax rate is **higher than the current rate**.

92. [“The next two questions ask you to choose between two new taxes to meet the government’s general revenue needs:” if appears first”]

Suppose that the government must raise new revenue by choosing one of two policies. Both policies would raise the same amount of revenue. **Which do you prefer?**

Option 1 [46% support]

A new income tax [for rich: “for those with more than \$10 million of wealth”] on increases in the value of stocks each year, even if people **do not sell** the stocks. The tax rate is the same as the current rate for stock sales.

Option 2

A new income tax on everyone [for rich: “with more than \$10 million of wealth”]. It raises everyone’s [for the rich “each of their” instead of “everyone’s”] tax rates (on all sources of income) by the same amount.

93. Status quo vs. MTM to protect Social Security [Randomized into control and both-sides; everyone else gets this]

The government is now considering increasing some taxes to protect Social Security.

The government is choosing between two policies for taxing stock increases. **Which do you prefer?**

Option 1

No policy change: People pay income tax on increases in their stock only when they sell their stock.

- No new revenue is dedicated to protecting Social Security.

Option 2 [40% support]

A new income tax on increases in the value of stocks each year, even if people do not sell the stocks.

- This new tax revenue is **dedicated to protecting Social Security**.

94. Withholding question [Rich only]

Suppose that the previous policy is not adopted. And the government is again considering increasing some taxes to protect Social Security.

Suppose that the government is now choosing between two policies for taxing stock increases. **Which do you prefer?**

Option 1

No policy change: People pay income tax on increases in their stock only when they sell their stock.

- No new revenue is dedicated to protecting Social Security.

Option 2 [59% support (rich treatment)]

A new “withholding” tax on increases in the value of stocks each year, even if people do not sell the stocks.

- This year, people pay *a fraction* (10%) of the amount they will ultimately owe on their stock increases occurring this year.
- In each later year, people pay tax on another fraction (10%) of the amount they will ultimately owe on this year’s increases. This will continue until their full gain has been taxed or they sell the stock.

This new tax revenue is **dedicated to protecting Social Security**.

B. Transition Rules

[Randomize in these next 2 questions as a pair for control, both-sides. Have for all participants in rich. Exclude from all other treatments.]

95. Assume that the federal government begins taxing households annually on increases in the value of their stock, even if it has not been sold. The government would face the question of what to do about increases in the value of stock that happened in the past.

Suppose, for example, that Mary bought her stocks for \$10,000 [“\$100,000” for rich] many years ago, and, before this year, they had increased in value to \$60,000 [“\$1,100,000” for rich] without any of the stock ever being sold. So, the stock has gained \$50,000 [\$1 million for rich] in value.

Do you support or oppose the federal government taxing Mary today on the whole \$50,000 [\$1 million for rich] increase that has already occurred?

(You will be asked what rate should apply in the next question.)

Yes [20%]; No: the government should have to wait until Mary sells to tax her gain.

- 96.** Assuming that this tax is adopted, at what rate should Mary be taxed this year on her past increase in the value of the stocks? [same screen as previous question]

Same rate as if these gains occurred all this year [61%]; Higher rate as if these gains occurred all this year [7%]; Lower rate as if these gains occurred all this year [32%]

X. Alternative Policies

[Randomize module into control and both-sides. All rich get this. All on one page, except for last one.]

- 97.** Mary’s annual salary from her job is \$50,000 [“\$1,000,000” for rich treatment]. Do you support or oppose Mary having to pay income tax on that 50,000 [“\$1,000,000” for rich treatment]?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [77% support]

- 98.** Mary wins \$50,000 [“\$1,000,000” for rich treatment] in the lottery. Do you support or oppose Mary having to pay income tax on that 50,000 [“\$1,000,000” for rich treatment]?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [78% support]

- 99.** Mary receives an unexpected \$50,000 [“\$1,000,000” for rich treatment] bonus in her job. Do you support or oppose Mary having to pay income tax on that \$50,000 [“\$1,000,000” for rich treatment]?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [73% support]

- 100.** Do you support or oppose higher federal taxes on dividends?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [30% support]

[Next question for rich only]

- 101.** Do you support a federal wealth (as opposed to income) tax that taxes the value of all assets a given percentage each year?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [43% support]

[Next question on its own page]

102. Do you support or oppose higher federal taxes on corporations?

Strongly support; Weakly support; Neither support nor oppose; Weakly oppose; Strongly oppose [68% support]

XI. Legitimacy and Partisan Framing

[Randomize in for control and both-sides. All rich get this.]

103. Suppose that people must pay income tax on increases in the value of their stocks every year, even if they do not sell. But they do not pay tax again when they sell.

How, if at all, would this tax affect your voluntary compliance in paying the taxes owed?

Make me more likely to voluntarily comply [19%]; *Have no impact on my voluntary compliance* [62%]; *Make me less likely to voluntarily comply* [19%]

104. Directly inject partisanship [Only rich get this]

The next question is similar to an earlier question, but gives some additional context to these policy proposals.

Over the last year, leading Democrats in the U.S. Senate have proposed increasing some taxes to protect Social Security.

The government, in fact, is now choosing between two policies for taxing stock increases. **Which do you prefer?**

Option 1

No policy change: People pay income tax on increases in their stock only **when they sell** their stock.

- No new revenue is dedicated to protecting Social Security.

Option 2 [50% support (Rich treatment)]

A new income tax on increases in the value of stocks each year, even if people **do not sell** the stocks.

- This new tax revenue is **dedicated to protecting Social Security**.
- Endorsed by leading **Democrats**

XII. Legitimacy, Asset Ownership, Policy Views, and Financial Literacy

A. Policy Views [Everyone gets this]

105. Please indicate how strongly you agree or disagree with the following statements.

- Taxes are too high. [70% agree]
- Taxes on dividends and sales of stock are too high. [45%]
- The deficit is too high. [73%]
- The government spends too much money. [77%]

- e. We should take from the rich to give to the poor. [45%]
- f. It is worth sacrificing economic growth to have greater equality. [35%]
- g. People deserve to keep the money they earn. [83%]
- h. The rich pay too little in taxes. [70%]

Strongly agree; Somewhat agree; Neither agree nor disagree; Somewhat disagree; Strongly disagree

B. Ownership of Assets [Everyone gets next two]

106. Do you own any of the following:

- Stocks
- Mutual funds
- Exchange traded funds

either directly or in a retirement account (401(k), IRA etc.)?

Yes; No [59% yes]

107. Do you own any of the following:

- Stocks
- Mutual funds
- Exchange traded funds

that are not in a retirement account (401(k), IRA etc.)?

Yes; No [39% yes]

[Get next 4 only if are randomized into other-asset module]

108. Do you own your home?

Yes; No [67% yes]

[include next question in anti-status quo]

109. Do you own a building other than your home that you rent out to others?

Yes; No [4% yes]

110. Do you own a business that typically makes at least \$10,000 a year of profit?

Yes; No [9% yes]

111. Do you own pieces of art that in total are valued in excess of \$10,000?

Yes; No [5% yes]

[All treatments have from here to the end.]

C. Knowledge on Distributional Questions

112. We now would like to ask you some informational questions about current economic circumstances and about current policy. Please give your best answer.

Think about the U.S. stock market.

Of all the stock owned by Americans, how much do you think belongs to the wealthiest 10% of households?

Slider from 0-100%. [69.25%]

113. What share of American households have wealth of \$10 million or more?

Slider from 10%-0% with a lot of gradation (Correct is 1%). [3.33%]

D. Financial Literacy [These 3 questions are on the same page.]

We would like to ask you some questions about the economic circumstances of people in various situations. Please give your best answer.

114. Suppose Bob and Sue both recently won money in the lottery. Bob won \$50,000 on December 31 of last year. Sue won \$50,000 the next day, on January 1 of this year.

Bob had to pay tax on his winnings at the end of **last year** (immediately after he won).

Sue had to pay tax on her winnings at the end of **this year** (nearly a year after she won).

Who is better off?

Bob [20%]; Sue [38%]; They are equally well off [35%]; Don't know [7%]

115. Do you think that the following statement is true or false: Buying a single company stock usually provides a safer return than a stock mutual fund?

True [11%]; False [47%]; Don't know [42%]

116. Assume a friend inherits \$10,000 today and his sibling inherits \$10,000 3 years from now. Who is better off because of the inheritance?

My friend [52%]; His sibling [9%]; They are equally well off [26%]; Don't know [13%]

D. Confusion/Bias

117. How well did you feel like you understood the survey?

I understood all of the survey [36%]; I understood most of the survey [45%]; I understood some of the survey [15%]; I understood little of the survey [4%]; I understood none of the survey [0%]

118. Which one of the following best captures your view about the survey?

*It is trying to get an unbiased understanding of my opinions [81%]; It is trying to influence me to **support** taxing increases in stock value before they are sold. [16%]; It is trying to influence me to **oppose** taxing increases in stock value before they are sold. [3%]*

119. Please let us know if there was anything in the survey you thought was confusing or biased. We appreciate your help!

Free response.

Appendix B: Robustness Survey

The Robustness Survey is a 17-question survey that contains a subset of questions in the Primary Survey, with a few changes. The purpose of the treatments in the Robustness Survey is to test the effect of using different language in the main questions (Q29-34) of the Primary Survey. Below, we first summarize the logistics of running this survey. Then, we describe the control of the Robustness Survey, then how the two treatments differ from it.

Survey logistics

Similar to the Primary Survey, the Robustness Survey was hosted on Qualtrics and administered to a panel of demographically-representative U.S. respondents of survey company Bilendi&Respondi. The survey was launched on April 11, 2022, and data collection ended on May 1, 2022. We received 1,500 respondents: about 500 per treatment. We paid the survey company \$3.10 per respondent. The median time to complete the survey was 11.9 minutes.

Robustness Benchmark

The benchmark in the Robustness Survey is a subset of the control treatment in the Primary Survey. Referencing the numbering of the Primary Survey (Appendix A), the screens in the Robustness Survey are:

- #1-20: introductory material
- #29-34: the “main questions”: support for taxing at sale, support for taxing MTM, choice between taxing at sale or MTM, free response, structured reasoning
- #36: attention question
- #37: mental accounting (tithing)
- #89: knowledge of current mark to market law
- #106-108: whether respondent owns stock, stock not in a retirement account, and their home
- #114-119: financial literacy and concluding questions

The two changes from the main survey are:

1. We added a comprehension question after Q34 to check for understanding of what the main questions in the survey were asking. The question reads: “Over the previous six screens, have you been answering questions about stock that has been sold or not sold?” The answer choices are: 1) Sold; 2) Unsold; 3) Unsure.
2. We reworded one explanation in our structured reasoning page (Q34f). The original wording was “People should not be taxed until they conclude their investment by selling the stock.” Our revised statement is: “Until a stock is sold, any gains or losses only exist on paper and thus are not real yet.”

Simplified Wording Robustness Check

This treatment removes language from our main questions about taxes paid on gains being subsequently refunded if the value of the stock goes down later. The purpose of this is to make the mark-to-market regime sound less complicated compared to the taxing-at-sale regime.

This treatment also has an extra comprehension question after the first added comprehension question. This question reads (answer in italics):

“The last several questions have asked you about the government taxing unsold increases in stock value each year. We are interested in how you thought this policy would work.

Suppose that:

- At the end of last year, Mary bought stock in Grocery Co.
- This year, it increases in value. Under the policy, she pays tax on that increase this year.
- Next year, the stock drops back down to the original price she paid. She never sells any stock.

How did you think the policy would work as you answered the previous questions?

The tax Mary already paid is refunded to her next year.;

The tax Mary already paid is not refunded to her next year.;

Not Sure”

The difference in wording from the benchmark are as follows. Only the changed parts of the question are copied below. Changes are underlined.

Question	Benchmark	Simplified Wording Treatment
Q22: Tax Unsold Stock	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>Proposed policy: Mary pays income tax this year on the \$50,000 increase in her stock, even though she does not sell it.</p> <p><u>If Mary’s stock later goes back down in value, these taxes are refunded.</u> <u>And, because her gains have already</u></p>	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>Proposed policy: Mary pays income tax this year on the \$50,000 increase in her stock, even though she does not sell it.</p> <p>She will not have to pay tax on her gains again when she sells her stock.</p>

	<p><u>been taxed</u>, she will not have to pay tax on her gains again when she sells her stock.</p>	
Q23: Baseline Head to Head	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary's stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>The government is choosing between two policies for taxing people like Mary. Which do you prefer?</p> <p>Option 1: Mary pays income tax on increases in her stock only <u>when she sells</u> her stock in the future.</p> <p>Option 2: Mary pays income tax this year on the increase in her stock, even though she does not sell it.</p> <p><u>If her stock later goes back down in value, these taxes are refunded. And, because gains have already been taxed,</u> she will not have to pay tax on them again when she sells her stock.</p>	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary's stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>The government is choosing between two policies for taxing people like Mary. Which do you prefer?</p> <p>Option 1: Mary pays income tax on increases in her stock only <u>when she sells</u> her stock in the future.</p> <p>Option 2: Mary pays income tax this year on the increase in her stock, even though she does not sell it. She will not have to pay tax on them her gains again when she sells her stock.</p>

Unsold Wording Robustness Check

This treatment removes language from our main mark-to-market questions that emphasize that the policy would impose a tax even though the person did not sell the stock. We removed it in case it had the effect implying that this tax is different, or that it was not the status quo.

The difference in wording from the benchmark are as follows. Only the changed parts of the question are copied below. Changed parts are underlined.

Question	Benchmark	Unsold Wording Treatment
Q18: Comprehension Questions	<p>Policy 1: People must pay income tax on increases in the value of their stocks each year, even if they <u>do not sell the stocks</u>.</p>	<p>Policy 1: People must pay income tax on increases in the value of their stocks each year.</p>

	<p>Suppose that Pamela bought stock in Grocery Co. last year. It increases in value by \$50,000 this year. She <u>does not sell</u> the stock.</p> <p>Under this policy, does Pamela need to pay income tax this year on the \$50,000 increase in the value of the stock?</p> <p><i>Yes; No [89% correct]</i></p> <p>[If respondents answer yes: “Correct. Under this policy, Pamela must pay income tax this year on the \$50,000 increase in her stock value, <u>even though she does not sell the stock”</u>]</p> <p>[If respondents answer no: “Incorrect. Under this policy, Pamela must pay income tax this year on the \$50,000 increase in her stock value, <u>even though she does not sell the stock.</u>”]</p>	<p>Suppose that Pamela bought stock in Grocery Co. last year. It increases in value by \$50,000 this year. She <u>does not sell</u> the stock.</p> <p>Under this policy, does Pamela need to pay income tax this year on the \$50,000 increase in the value of the stock?</p> <p><i>Yes; No [89% correct]</i></p> <p>[If respondents answer yes: “Correct. Under this policy, Pamela must pay income tax this year on the \$50,000 increase in her stock value.”]</p> <p>[If respondents answer no: “Incorrect. Under this policy, Pamela must pay income tax this year on the \$50,000 increase in her stock value.”]</p>
Q22: Tax Unsold Stock	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>Proposed Policy: Mary pays income tax this year on the \$50,000 increase in her stock, <u>even though she does not sell it.</u></p>	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>Proposed Policy: Mary pays income tax this year on the \$50,000 increase in her stock.</p>

<p>Q23: Baseline Head to Head</p>	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>The government is choosing between two policies for taxing people like Mary. Which do you prefer?</p> <p>Option 1: Mary pays income tax on increases in her stock only <u>when she sells</u> her stock in the future.</p> <p>Option 2: Mary pays income tax this year on the increase in her stock, <u>even though she does not sell it</u>.</p> <p>If her stock later goes back down in value, these taxes are refunded. And, because gains have already been taxed, she will not have to pay tax on them again when she sells her stock.</p>	<p>Facts: Suppose that Mary bought stock in Grocery Co. at the end of last year.</p> <p>This year, Mary’s stock in Grocery Co. goes up in value by \$50,000. She <u>does not sell</u> any of her stock.</p> <p>The government is choosing between two policies for taxing people like Mary. Which do you prefer?</p> <p>Option 1: Mary pays income tax on increases in her stock only <u>when she sells</u> her stock in the future.</p> <p>Option 2: Mary pays income tax this year on the increase in her stock.</p> <p>If her stock later goes back down in value, these taxes are refunded. And, because gains have already been taxed, she will not have to pay tax on them again when she sells her stock.</p>
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Online Appendix C – Data Appendix¹

i. Sources of demographic information for U.S. Population:

Variable	Source	Notes
Age	U.S. Census Bureau (2019). <i>Annual Estimates of the Resident Population for Selected Age Groups by Sex: April 1, 2010 to July 1, 2019</i> . National Population by Characteristics, 2010-2019. https://www.census.gov/data/datasets/time-series/demo/popest/2010s-national-detail.html .	Data from 2019.

¹ Following Appendix B in Zachary Liscow & Abigail Pershing, *Why is So Much Redistribution In-Kind and Not in Cash? Evidence from a Survey Experiment*, Yale Law School Working Paper (2020).

Race	Kaiser Family Foundation (2021). <i>Population Distribution by Race/Ethnicity</i> . https://www.kff.org/other/state-indicator/distribution-by-raceethnicity .	Data from 2019.
Gender	U.S. Census Bureau, Population Estimates Program (2019). <i>QuickFacts</i> . https://www.census.gov/quickfacts/fact/table/US/PST045219 .	Data from 2019.
Education	U.S. Census Bureau (2020). <i>Table 1. Educational Attainment of the Population 18 Years and Over, by Age, Sex, Race, and Hispanic Origin: 2019</i> . Educational Attainment in the United States: 2019. https://www.census.gov/data/tables/2019/demo/educational-attainment/cps-detailed-tables.html .	Data from 2019.
Politics	Gallup (2021). <i>Party Affiliation</i> . In Depth, Topics A to Z. https://news.gallup.com/poll/15370/party-affiliation.aspx .	Data averaged from 4/1/20 through 1/15/21.
Income	U.S. Census Bureau (2020). <i>Table A-2. Households by Total Money Income, Race, and Hispanic Origin of Householder: 1967 to 2019</i> . Income and Poverty in the United States: 2019. https://www.census.gov/data/tables/2020/demo/income-poverty/p60-270.html .	Data from 2019.
Employed	Bureau of Labor Statistics (2021). <i>The Employment Situation – June 2021</i> . https://www.bls.gov/news.release/pdf/empsit.pdf , p.14, Table A1.	February 2021. Sum of employed men and women 16+. Total population from “Age” row in this table is used to calculate percentage.
Married	U.S. Census Bureau, Current Population Survey (2020). <i>Table A1. Marital Status of People 15 Years and Over, By Age, Sex, and Personal Earnings: 2020</i> . https://www.census.gov/newsroom/stories/spouses-day.html .	Data from 2020. Sum of “Married Spouse Absent” and “Married Spouse Present” columns.

Stock ownership	Federal Reserve System (2020). <i>Changes in U.S. Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances</i> . Federal Reserve Bulletin. https://www.federalreserve.gov/publications/files/scf20.pdf , p. 16, Table 3.	Data from 2019, “Stocks” column.
Home ownership	U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey (2021). <i>Homeownership Rates by Region</i> . https://www.census.gov/housing/hvs/files/qtr420/hown420.jpg .	National Data from Fourth Quarter 2020.

ii. Notes on definitions of demographic categories

1. Race

- a. “Other race” includes two or more races, except when the respondent chose Hispanic/Latino as one of the races, in which case we categorized the respondent as Hispanic/Latino.
- b. Respondents categorized as Hispanic/Latino may be of any race. All respondents categorized as any other race/ethnicity (including “other race”) are non-Hispanic. This is done in line with Census categorization practices.

2. Income

- a. Where we use income in regressions, we use the midpoint of the respondent’s reported income bracket. The lowest bracket (less than \$13,000) and highest (greater than \$200,000) we code as \$9,500 and \$225,000, respectively.

iii. Textual analysis

We took the following steps to clean the free-form responses:

1. Convert all text to lowercase.
2. Standardize some common words, e.g., “tax payer” to “taxpayer,” so that different spellings are not treated differently and so that concepts like “healthcare” are treated as single words.
3. Remove special characters, numbers, punctuation and consecutive spaces.
4. Remove “stop words” (i.e., very common words). These words, such as “my” and “have,” are from the “stopwords” list in the “tm” package in R.
5. Lemmatize the words—that is, convert them to their dictionary entry form—to reduce the number of variants. This is done in two steps: first with the Mechura dictionary in the textstem package in R, then with the Hunspell lemma dictionary, which we use to lemmatize adverbs only.