Perceived Budget Constraint of the Government*

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Abstract

We provide direct evidence on how the public expects the government to satisfy its intertemporal budget constraint. In a representative survey of U.S. households, respondents expect only 45% of government debt to be financed by future primary surpluses and 23% to be rolled over indefinitely without ever generating surpluses, as if sustained by a bubble. Experts perceive an even larger bubble (37%). Beliefs respond to fundamentals: at a debt-to-GDP ratio of 150%, the perceived bubble shrinks to 15%. A New Keynesian model calibrated to these beliefs implies a 13% larger government spending multiplier.

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1 Introduction

How will the government finance its debt? The answer matters for behavior: a household that expects the debt to be financed with future taxes may want to save, while one that expects the debt to be rolled over forever without surpluses may treat government bonds as net wealth. These expectations are beliefs about the government's intertemporal budget constraint. As public debt has grown across major economies, so has the importance of these beliefs. Yet we have almost no direct evidence on how people answer this question.

In this paper, we provide direct empirical evidence on household beliefs about the government's intertemporal budget constraint. We survey a representative sample of 2,783 U.S. households, asking respondents how they think the government will finance its stock of debt. Crucially, the financing options we present to the respondents arise from a rich but standard intertemporal budget constraint, and together they span sources that extend beyond conventional primary surpluses, including money printing, the erosion of debt by inflation, government asset sales, manipulation of the cost of servicing debt, outright default, and the possibility that debt is simply rolled over forever without collecting primary surpluses. Respondents first select the financing methods they believe the government is likely to use. Then, for each selected method, they allocate shares of the total debt they expect it to cover.

Our central finding is that the public expects only a minority of government debt to be financed in the conventional sense. On average, respondents attribute just 45 percent of outstanding debt to future primary surpluses, split between higher tax rates (16 percent), higher revenue from economic growth (11 percent), and lower spending (18 percent). Smaller shares go to less conventional channels: money creation, lower debt-servicing costs, asset sales, and default each account for between 4 and 6 percent, and only 11 percent of debt is expected to be inflated away.

Most strikingly, respondents expect fully 23 percent of government debt to be rolled over indefinitely without ever generating offsetting surpluses, in other words, to be sustained like a bubble. Respondents trace this rollover possibility to the belief that future investors will keep buying the debt (10 percent), to the liquidity and safety yield on government bonds (7 percent), and, to a lesser degree, to financial repression (3 percent).[1] This belief mirrors recent evidence that observed debt valuations exceed what projected surpluses can justify (Jiang, Lustig, Van Nieuwerburgh and Xiaolan, 2024a).

Because there is no natural benchmark for these magnitudes, we fielded the same questions about current debt financing, together with the bubble decomposition, to a sample of academic and policy economists (295 respondents in total). Experts reinforce the

[1] The remaining 3 percent within the rollover category is classified as "other."

pattern. They expect 37 percent of debt to be rolled over without surpluses, a larger share than households report, and assign correspondingly less to primary surpluses. Experts also lean more on inflation (16 vs. 11 percent) and less on default and asset sales. Within the bubble component, they place more weight on speculative and liquidity motives (16 and 15 percent, vs. 10 and 7 percent among households), while the shares attributed to financial repression and other motives are essentially identical across the two groups. That informed observers perceive an even larger unbacked component reinforces our central finding.

A descriptive snapshot of current beliefs is informative but silent on the question that matters for policy: how expectations would move if conditions changed. Because the relevant counterfactuals are rarely observed in the data, we follow a growing literature that elicits household beliefs in hypothetical scenarios or vignettes (Fuster, Kaplan and Zafar, 2021; Andre, Pizzinelli, Roth and Wohlfart, 2022) and design a sequence of such scenarios. The first poses the same financing question five years ahead, when the U.S. administration will most likely have changed. The remaining scenarios vary the features theory predicts should matter: the level of debt, the existence of the bubble itself, and the nature of the shock that raises debt.

Beliefs turn out to be largely invariant to the first scenario. Most respondents report unchanged expectations, and those who do revise stay close to their view of current financing.

The level of debt, by contrast, matters. In a scenario in which debt reaches 150 percent of GDP, average responses shift in economically meaningful ways: the share expected to be rolled over falls from 23 to 15 percent, while the share expected to be defaulted on doubles from 4 to 8 percent. The share financed by future surpluses, however, remains anchored at 45 percent.

We also confront respondents with a scenario in which the bubble can no longer exist. Brunnermeier, Merkel and Sannikov (2020) show that when government debt carries a bubble, the government can keep the bubble attached to its debt, rather than letting it migrate to other assets, by credibly committing to back the debt with surpluses should the bubble vanish. We test this out-of-equilibrium logic by asking respondents who had selected the bubble channel to imagine that the government can no longer roll debt over without raising surpluses. On average they raise the share financed by primary surpluses by 13 percentage points, broadly consistent with the proposed mechanism, though they also shift some debt toward other sources, including default.

Finally, beliefs may depend on the nature of the shock that raises debt. We ask how respondents expect newly issued debt to be financed after two unexpected fiscal expansions, each framed as raising the debt-to-GDP ratio by 10 percentage points: a temporary

rise in military spending and cash transfers of the kind made during the COVID-19 pandemic. Respondents expect future surpluses to cover roughly 42 and 41 percent of the two increases, respectively, and expect 29 and 26 percent to be rolled over indefinitely without collecting primary surpluses. This offers a belief-based reading of the finding in Eichenbaum, Guerreiro and Obradovic (2026) that households do not revise their expected tax liabilities after economy-wide transfers: households may fail to anticipate higher taxes not only because they are inattentive to the government's budget constraint, but because many believe the new debt will be rolled over indefinitely.

These averages mask substantial heterogeneity, some of which is systematically related to individual characteristics elicited in the survey. Conditional on observables, respondents who are parents, college-educated, or Republican-leaning expect a larger share of debt to be financed through future surpluses and a smaller share to be rolled over without them.

In the final part of the paper, we ask whether these beliefs are consistent with conventional macroeconomic models and what they imply for macroeconomic dynamics. We present a standard rational-expectations New Keynesian model augmented with debt in the utility function (Michaillat and Saez, 2021; Mian, Straub and Sufi, 2025), so that government debt can be valued even when the government does not collect primary surpluses. We choose the fiscal and monetary policy parameters to match the financing shares of newly issued debt following a military spending shock. We focus on the case of shocks because it is where the survey questions and the model experiment are closest to each other.

Equipped with the calibrated model, we obtain three main results. First, the government spending multiplier after an increase in military purchases is 13 percent higher in the benchmark model than in a version of the model in which debt does not enter the utility function and must therefore be backed by conventional sources. Second, the model matches the financing shares following the transfer shock, even though the model parameters are calibrated to the military spending shock and the two shocks generate different dynamics of the key macroeconomic variables. Third, we ask a counterfactual question: what would the financing shares be if the government never changed primary surpluses after a spending shock (Bianchi, Faccini and Melosi, 2023; Angeletos, Lian and Wolf, 2024a)? In other words, what does self-financing look like in this model? Such a fiscal expansion is strongly stimulative, so the central bank raises interest rates aggressively, and the interest-rate response enters the decomposition as a negative financing share. The elevated inflation response works in the opposite direction and more than offsets the interest rate effect. Importantly, the bubble component, that is, the debt-in-utility term, covers 71 percent of the new debt.

Related literature. Our paper contributes to several research strands. First, we add to a nascent literature empirically studying fiscal expectations. Roth, Settele and Wohlfart (2022) and Coibion, Gorodnichenko and Weber (2021) use randomized controlled trials to study how information about debt levels and projections affects attitudes toward spending and inflation expectations, and Andrade, Gautier, Mengus, Moench and Schmidt (2025) show that only households perceiving limited fiscal space revise their inflation expectations. Bianchi, Dabla-Norris and Khalid (2025) use surveys of 27,000 respondents in 13 countries to show that the public's knowledge of fiscal variables is limited and that expectations of future tax increases and spending cuts depend on perceived debt levels, trust, and lifetime experience with fiscal consolidations. Wu, Xie, Xie and Zhang (2025) show, using a randomized survey experiment across five eurozone countries, that household expectations imply smaller multipliers for debt-financed stimulus in high-debt countries, while the effectiveness of tax-financed stimulus is insensitive to the debt burden. Eichenbaum, Guerreiro and Obradovic (2026) use survey experiments comparing individual and economy-wide cash transfers to show that households do not revise their expected own tax liabilities in response to deficit-financed transfers and plan to spend out of them at the same rate as out of an individual windfall, contrary to the Ricardian benchmark.

Like the last two papers, our study uses hypothetical scenarios, which recently became a popular tool in economics (Haaland, Roth and Wohlfart, 2023), to elicit respondents' beliefs in parts of our design. Unlike all the above papers, we elicit the complete decomposition of the government's intertemporal budget constraint: respondents allocate existing or newly issued debt across the full menu of financing channels, including unconventional options such as default and indefinite rollover without surpluses. Moreover, the studies above elicit beliefs at finite horizons, typically a few years ahead, which cannot capture delayed adjustments or margins that operate only in the indefinite future. Our design does not impose such a limit, allowing us to measure the share of debt the public expects to be rolled over without ever being backed by surpluses, which turns out to be the largest single component. We also ask respondents to explain their answers in open-ended questions. Finally, we benchmark the household responses against a survey of academic and policy economists.

Our findings speak to the puzzle that in countries such as the United States and Japan, current levels of debt far exceed what extrapolated primary surpluses can justify, raising the question of why investors continue to hold the debt (Chien, Cole and Lustig, 2023; Jiang, Lustig, Van Nieuwerburgh and Xiaolan, 2024b,a). Reis (2022) and Brunnermeier,

Merkel and Sannikov (2024) attribute the gap to a bubble component rooted in the safety and liquidity of government debt. Our evidence suggests that a large share of the public, including those who invest in financial assets, expects debt to be sustained, in part, precisely by such a bubble.

A large macroeconomic literature decomposes the historical evolution of the debt-to-GDP ratio into the contributions of primary surpluses, inflation, growth, and interest rates (Hall and Sargent, 1997, 2011; Cochrane, 2019). Bianchi, Faccini and Melosi (2023) decompose fiscal expansions into funded and unfunded components using a structural estimation. Bouscasse and Hong (2026) estimate the impulse responses of the components of the flow budget constraint of the government following identified shocks in historical data and find that the U.S. debt stays elevated even five years after the shock. While this line of work identifies financing from realized outcomes, we measure what individuals expect going forward.

We contribute to a macroeconomic literature that uses expectations data to discipline models. In the fiscal branch of this literature, Iovino and Sergeyev (2023), Bianchi-Vimercati, Eichenbaum and Guerreiro (2024), and Eichenbaum, Guerreiro and Obradovic (2026) present models with level-k thinking and cognitive discounting to study how macroeconomic dynamics change under deviations from full-information rational expectations. We take a different route and calibrate a rational-expectations model to our survey results. Once government debt enters the utility function, the model is calibrated to match the measured financing beliefs. So our findings can be interpreted through the lens of such a model. Moreover, because the beliefs we elicit concern the indefinite future, they cannot be validated against realized data, which makes it difficult to argue for one behavioral expectations model over another. We therefore retain the rational-expectations benchmark against which behavioral alternatives can be compared in the future.

The rest of the paper is organized as follows. Section 2 develops the conceptual framework underlying our survey financing options. Section 3 presents the survey design. Section 4 reports the average results across respondents. Section 5 documents heterogeneity. Section 6 examines the model implications of the average household beliefs. Section 7 concludes. The appendix collects omitted figures, tables, model details, and our survey questions.

2 Intertemporal Budget Constraint of the Government

How can the government finance its debt? To answer this question, we introduce the budget constraint of the government, starting with its standard formulation and then extending it to incorporate additional financing methods that correspond to the options

in our survey.

2.1 Conventional Budget Constraint

Consider the government's flow budget constraint, written as

$$B_{t-1} = P_t s_t + \frac{1}{1+i_t} B_t, \tag{1}$$

where B_{t-1} denotes the total face value of one-period government debt maturing in period t, P_t is the aggregate price level, i_t is the nominal interest rate, and s_t is the real primary surplus.[2]

The flow budget constraint (1) already highlights three distinct channels through which the government can finance its outstanding debt.

Primary surpluses. The first term on the right-hand side captures the primary surpluses, the difference between tax revenues τ_t and government spending on goods, services, and social programs (excluding interest payments) g_t. Government revenues can be further decomposed into the tax rate $\psi_{y,t}$, the tax base y_t, such as gross domestic product, and a tax-base-invariant constant term $\underline{\tau}$ as $\tau_t = \underline{\tau} + \psi_{y,t} y_t$.[3]

Interest rate. The second term on the right-hand side of equation (1) is discounted by the nominal interest rate i_t. All else equal, the lower the central bank sets the nominal interest rate, the smaller the amount of debt the government needs to issue to service existing debt, and hence the easier it is to finance the existing stock of debt by collecting surpluses.[4]

Inflation. The real surpluses s_t are multiplied by the price level P_t in equation (1). Because the government issues nominal bonds B_t, the nominal value of real surpluses s_t

[2] A similar government flow budget constraint can be written when government debt is long-term. Following Cochrane (2001) and Woodford (2001), suppose that government bonds are perpetuities that decay exponentially at rate $\zeta \in [0, 1)$. Let V_t denote the nominal value of outstanding government debt at the beginning of period t and Q_t the nominal price of one unit of government bonds. The budget constraint can then be written as

$$V_t = P_t s_t + \frac{1}{(1+\zeta Q_{t+1})/Q_t} V_{t+1},$$

where $(1+\zeta Q_{t+1})/Q_t - 1$ is the nominal yield on long-term government bonds. Note that the value of outstanding bonds is indexed by t, rather than $t-1$, because V_t is no longer predetermined in $t-1$.

[3] When $\underline{\tau} = 0$, the tax rate $\psi_{y,t}$ becomes the effective tax rate.

[4] History provides many examples in which nominal interest rates were managed to alleviate fiscal pressures. In the United States, for example, the Federal Reserve maintained stable yields on government securities from 1942 until the Treasury–Federal Reserve Accord of 1951 (Friedman and Schwartz, 1963).

increases with inflation, making it easier to finance debt, holding other variables constant, if the government collects positive real surpluses. In many macroeconomic models, inflation reduces debt only when it is unexpected. If inflation is anticipated, nominal interest rates typically adjust through the Fisher equation. Household expectations, however, need not conform to it. Households may lack rational expectations, or access to the financial markets that would let them arbitrage away inconsistent beliefs.

2.2 Extended Budget Constraint

We next present additional sources of government debt financing. Consider the following flow budget constraint of the government, where we added several new terms and divided by P_{t-1} relative to equation (1):

$$\frac{B_{t-1}}{P_{t-1}}(1-\delta_t) = \Pi_t \left[s_t + f_t + \frac{M_t - M_{t-1}}{P_t} + \left(\frac{1}{1+i_t} - \frac{1}{1+i_t^s} \right) \frac{B_t}{P_t} + \frac{1}{1+i_t^s} \cdot \frac{B_t}{P_t} \right]. \tag{2}$$

In this equation, $\delta_t \in [0,1]$ is the share of debt the government defaults on in period t, $\Pi_t \equiv P_t/P_{t-1}$ is the gross inflation rate, f_t denotes real proceeds from the sale of government assets (i.e., privatization) or revenues from renting these assets, M_t is the supply of money (i.e., currency), and i_t^s is an alternative interest rate, for example, the interest rate on safe privately issued securities. It can also be a synthetic discount factor that prices government bonds in incomplete markets models, such as Reis (2021) and Brunnermeier, Merkel and Sannikov (2024), or models with debt in the utility function, such as the model in Section 6. $b_t \equiv B_t/P_t$ and $m_t \equiv M_t/P_t$ will denote the real value of public debt and money. We describe each of these new elements in more detail below.

Default. One way the government can satisfy its budget constraints is by defaulting on its obligations. We account for this by introducing a default parameter $\delta_t \in [0,1]$, denoting the fraction of debt the government defaults on at time t. A higher δ_t reduces the amount of debt the government must finance via other sources. As with inflation, in many macro models, default helps only if it is unexpected. Typically, a higher default probability affects interest rates and does not necessarily reduce the fiscal burden. In our extended *intertemporal* budget constraint below, equation (3), we do not require that higher default expectations translate into higher interest rates. Some respondents may believe that high levels of government debt will eventually lead to default, even if the interest rates remain relatively low.

Government Assets. Governments own assets, such as infrastructure, land, and natural resources. While asset-based financing is rarely the primary mechanism in advanced

economies, it becomes relevant during fiscal distress or in resource-rich countries with substantial public wealth. In such cases, asset sales can delay or reduce the need for politically costly fiscal adjustments.[5] We capture this through the real proceeds from government asset sales or, alternatively, the revenues from renting government assets f_t.[6]

Money printing. The third term in equation (2) represents seigniorage from new issuance of fiat money, which pays zero nominal interest.

"Bubble." Government bonds may be valued for reasons beyond those discussed above. For example, when government debt is perceived as safe, investors may hold it in anticipation of future states in which selling it will be particularly valuable, as in models with idiosyncratic risk (Woodford, 1990; Brunnermeier, Merkel and Sannikov, 2024). Alternatively, safe government bonds may serve as a useful medium of exchange because they are less susceptible to the adverse-selection problems that prevail in markets for risky assets (Gorton and Pennacchi, 1990; Dang, Gorton and Holmstrom, 2012; Gorton, 2012).[7] Additional demand may also arise from policies that artificially increase demand for government bonds, including regulations that require banks to hold them or policies of financial repression (Reinhart, Reinhart and Rogoff, 2015).[8]

These forces create a positive wedge between the alternative discount factor i_t^s and the government bond rate i_t. We formalize this by decomposing $B_t/P_t \cdot 1/(1+i_t)$ into the last two terms in the bracket in equation (2). When government debt is discounted at the rate i_t^s, the wedge appears as an implicit revenue stream similar to seigniorage (Reis, 2022; Brunnermeier, Merkel and Sannikov, 2024).[9]

Because these forces may allow the government to finance itself partly or fully without relying on conventional sources, we refer to this financing option as "*bubble*" financing.

[5] For example, to reduce public debt, the Greek government sold a majority stake in the Piraeus Port Authority (PPA) to China COSCO Shipping Corporation in 2016 (Reuters, 2016).

[6] We do not include the full value of government assets in the budget constraint, as it is unclear how much will ultimately be sold or rented.

[7] Krishnamurthy and Vissing-Jorgensen (2012) and Nagel (2016) document such a convenience yield in the U.S. Treasury market.

[8] We view financial repression and interest rate manipulation, mentioned in Section 2.1, as distinct. Financial repression is a wedge in the bondholder's Euler equation. Interest rate manipulation is a change in the level of the interest rate that leaves this wedge unchanged.

[9] A prominent strand of the debt-sustainability literature, sparked by Blanchard (2019)'s AEA Presidential Address, emphasizes the condition $r < g$, an interest rate on public debt below the economy's growth rate, as what allows the government to run deficits without ever collecting surpluses. However, $r < g$ is not sufficient for such rollover: in many standard environments, including models with aggregate risk, the government must still back its debt with surpluses even when the safe rate is below the growth rate Mehrotra and Sergeyev (2021). We therefore do not organize our analysis around the $r < g$ condition. Such beliefs are nevertheless captured by our survey design: a respondent who expects rollover sustained by $r < g$ would select the bubble option, consistent with the models in which this form of rollover constitutes bubble financing.

The quotation marks emphasize that we do not focus on any particular theory of bubbles. Instead, we use the term as an umbrella for the various mechanisms discussed in the macroeconomic literature.

Intertemporal Budget Constraint of the Government. We log-linearize equation (2) at a zero-inflation steady state with constant macroeconomic variables and no default, forward-iterate it, and apply a potentially non-rational expectations operator. This yields:[10]

$$\begin{aligned}\widetilde{b}_{t-1} = \widetilde{\mathbb{E}}_t \sum_{k=0}^{\infty} \beta^k \Big[& \underbrace{\psi_y \widehat{\psi}_{y,t+k}}_{\text{Tax rate}} + \underbrace{\psi_y \widehat{y}_{t+k}}_{\text{Tax base}} - \underbrace{\widetilde{g}_{t+k}}_{\text{Gov. spending}} \\ & + \underbrace{\Delta \widetilde{m}_{t+k}}_{\text{Money printing}} - \underbrace{s_b \frac{1}{1+i} \widehat{i}_{t+k}}_{\text{Nom. interest rate}} + \underbrace{(s_m + s_b)\, \pi_{t+k}}_{\text{Inflation}} \\ & + \underbrace{\widetilde{f}_{t+k}}_{\text{Gov. Assets}} + \underbrace{b \delta_{t+k}}_{\text{Default}} \\ & + \beta \frac{i^s - i}{1+i} \widetilde{b}_{t+k} \Big] + \widetilde{\mathbb{E}}_t \lim_{k \to \infty} \beta^k \widetilde{b}_{t+k}. \end{aligned} \tag{3}$$

where $\widetilde{b}_t \equiv (b_t - b)/y$, $\pi_t \equiv \log(\Pi_t)$, $\widehat{i}_t \equiv \log(1+i_t) - \log(1+i)$, $\beta \equiv 1/(1+i_s)$, $s_b \equiv b/y$ and $s_m \equiv m/y$ are the steady-state ratios of government debt and money to GDP, $\widehat{y}_t$ and $\widehat{\psi}_{y,t}$ are log deviations of GDP and the tax rate from steady state, $\widetilde{g}_t$ is the deviation of government spending from its steady-state value divided by steady-state GDP, and y is steady-state output. In most macroeconomic models, the budget constraint (3) holds under every possible realization of future shocks and in expectation. $\widetilde{\mathbb{E}}_t[\cdot]$ denotes a (potentially non-rational) expectations operator. We express the constraint in log-linearized form to decompose it into distinct channels that correspond to the survey response options.

The first line in equation (3) contains the conventional terms that make up changes in primary surpluses. Using the decomposition of real surpluses into revenues and spending, $s_t = \underline{\tau} + \psi_{y,t} y_t - g_t$, we express the deviation of surpluses from their steady state as $\widetilde{s}_t = \psi_y \widehat{y}_t + \psi_y \widehat{\psi}_{y,t} - \widetilde{g}_t$, where $\widetilde{s}_t \equiv (s_t - s)/y$. The second line includes conventional monetary sources of financing: money printing, interest changes, and inflation. Note that money printing and inflation appear as two separate terms. While they can be correlated, there are situations, such as liquidity traps and variations in money demand, when changes in money supply may not translate to inflation. The third line features less con-

[10] When iterating forward equation (2), we keep only government bonds on the left-hand side, while money printing becomes a term on the right-hand side. See Bassetto and Sargent (2020) for two alternative ways to write the intertemporal budget constraint of the government in their equations (19) and (20).

ventional sources: asset sales and default. The last line captures mechanisms that allow the government to roll over debt without collecting either conventional or unconventional surpluses, that is, the bubble term. We note that the final limit term generally vanishes even in models with government-debt bubbles. In those models, the bubble grows at the interest rate on government debt, while the limit term is discounted at the higher rate i_t^s (Reis, 2021; Brunnermeier, Merkel and Sannikov, 2024).

Overall, equation (3) provides the foundation for our survey analysis: each term maps to a distinct channel, which we link to a specific survey response option. The terms need not be independent of one another, since policies operating through one channel generally affect the others in equilibrium. We therefore interpret equation (3) as an accounting decomposition rather than as a menu of independent financing sources.

3 Survey Design

This section describes the survey, starting with the composition of our samples and then turning to the survey structure.

3.1 Samples

Main household survey. Our main survey collects a sample of 2,783 respondents that is broadly representative of the U.S. population in terms of gender, age, region, gross household income, and education. Data were collected in May 2025 using the online platform Prolific, which is widely used in economics and social science research (Haaland, Roth and Wohlfart, 2023). To ensure data quality, the survey was kept concise, with a median completion time of 12.9 minutes, and participants were compensated in line with Prolific's platform standards. Appendix Table A.1 shows that the demographic characteristics of our sample closely match those reported in the 2024 American Community Survey (Ruggles et al., 2025).[11] The full questionnaire is available in Appendix D.

Expert survey. In April 2026, we administered an expert survey targeting academic and policy economists. Specifically, we invited 2,319 economists who were authors or discussants at leading macroeconomic conferences over the past five years to complete a shorter version of our main survey. We constructed the expert contact list from publicly available sources. For academic economists, we collected email addresses of authors and discussants appearing in recent programs of macroeconomics conferences and workshops, in-

[11] The only exception is respondents aged 65 and older, who are underrepresented in our sample. Appendix Table B.4 shows that their answers are generally in line with those of younger respondents, except for the shares assigned to money printing and to the erosion of debt by inflation.

cluding NBER program meetings and Summer Institute sessions, CEPR events such as ESSIM, International Macroeconomics and Finance meetings, and Monetary Economics meetings, and the ECB Annual Research Conference. For policy economists, we used public staff directories from the Federal Reserve and the International Monetary Fund.

In total, 295 economists completed the government financing module (of whom 274 also completed the full survey, which additionally included demographic questions). The median completion time was 4 minutes. Of the respondents, 78 percent are affiliated with academic institutions, 17 percent with monetary authorities, and the remaining 5 percent represent international organizations and the private sector. The respondents are mostly based in North America (55 percent) and Europe (36 percent), predominantly male (82 percent), and concentrated in the 25–54 age range (85 percent). Macroeconomics is the main field for 63 percent, finance for 25 percent, and other fields, such as public finance, international trade, development, and labor economics, for the remaining 12 percent. Politically, the sample leans Democratic and Independent: Democrats (46 percent), Independents (34 percent), Republicans (7 percent), and other (12 percent).[12] The full list of the expert survey questions is available in Appendix E.

Supplementary household survey. In addition to the main household survey, we conducted a supplementary household survey in April–May 2026 with 481 respondents recruited through Prolific. As before, the sample is broadly representative of the U.S. population along the same demographic dimensions. The supplementary survey was shorter than the main survey, with a median completion time of approximately six minutes. Its primary purpose was to examine how households responded to the debt-financing questions during the same period in which we conducted the expert survey. We also slightly modified the description of the bubble-financing method. Finally, rather than asking participants to select from a set of predefined reasons why the government can use bubble financing, we asked them to explain in their own words why they selected this option. The supplementary survey questions can be found in Appendix Section F.

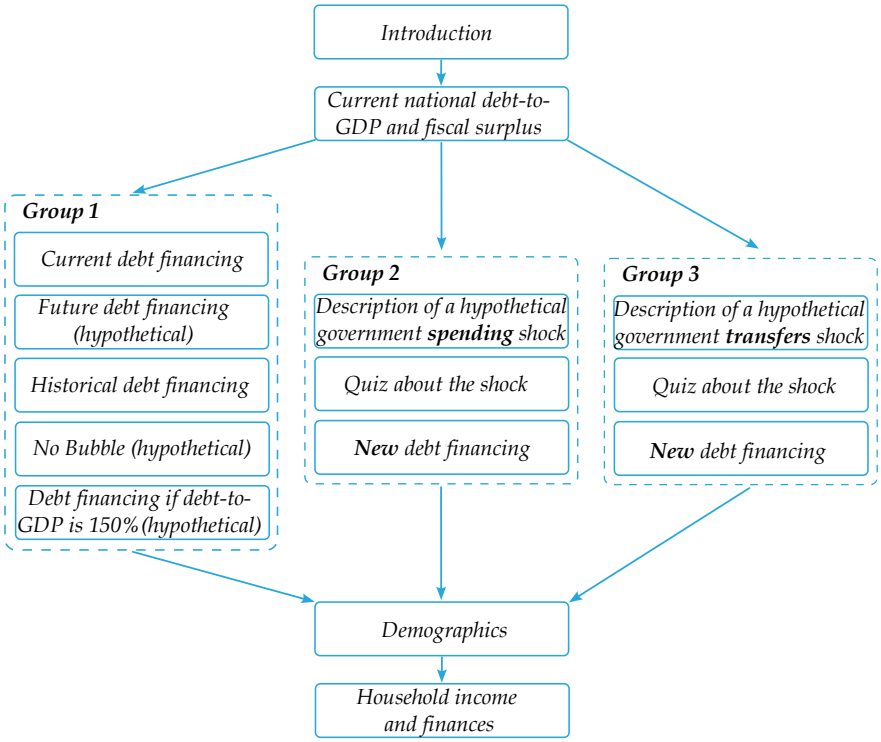
3.2 Survey Structure

Our main household survey consists of three parts, illustrated in Figure 1. In the first part, all participants read an introduction and reported their perception of the federal debt held by the public (hereafter, national debt) as a share of GDP at the end of 2024.[13]

[12] Because we presented the results of our main household survey at several conferences and seminars before running the expert survey, we asked the experts whether they had seen our paper before. Only 10 percent gave a positive answer.

[13] We focus on the national debt, the debt owed by the federal government of the United States to holders of Treasury securities, because it is arguably the most widely publicized measure of government indebted-

Figure 1: Survey Structure



We then provide all participants with accurate information about the national debt-to-GDP ratio at the end of 2024 and the level of primary surpluses in 2024. This disclosure aims to minimize the influence of misperceptions about the level of government debt and surpluses on respondents' expectations about how the debt will be financed.

In the second part, participants answer questions about government debt financing. They are randomly assigned to one of three groups. The first group answers questions about the overall level of national debt, followed by questions based on hypothetical scenarios that vary assumptions about the environment. The second and third groups receive analogous questions, but set within the context of two distinct macroeconomic shocks: a change in military spending (Group 2) and a change in government cash transfers (Group 3).

In the third part, participants complete an attention check and then answer a set of

ness in the media. In addition, we ask questions about the national debt held by the public, defined as the national debt net of federal securities held by various branches of the U.S. federal government (e.g., the Social Security Trust Fund), because it is the more relevant concept for the intertemporal budget constraint we study. Finally, we follow the Treasury's definition of federal debt held by the public and do not exclude the Federal Reserve's holdings. This choice reflects the fact that, since the Global Financial Crisis, the majority of the Fed's Treasury holdings have been financed by interest-bearing reserve balances rather than by zero-interest currency in circulation. As a result, these reserve balances generate substantially smaller profits for the Fed, and therefore smaller remittances to the Treasury, than they would if they were financed primarily by currency issuance.

background questions, including age, gender, state of residence, education level, and personal financial circumstances.

The supplementary household survey and the expert survey follow abbreviated versions of this structure. The supplementary survey includes only the introduction and the debt financing questions asked of Group 1, with one modification to the phrasing of a response option discussed below. Additionally, we introduced an extra open-ended question. The expert survey similarly covers the introduction and the Group 1 debt financing questions, followed by a short set of demographic questions.

3.3 Government Debt Financing Questions

We next describe the questions presented to each group of respondents.

Group 1: total level of debt. We asked the respondents the following question about how they think the U.S. government will finance its current national debt. The list of possible answers, which correspond to the components of the government budget constraint in equation (3), was presented in random order and multiple selection was allowed.

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its current level of debt? (Select all options you think apply.) The government will ...

- *increase tax revenues through higher tax rates;*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates;*
- *lower government spending (on goods, services, and social programs);*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars;*
- *print money to repay the debt;*
- *lower the interest rate on its debt;*
- *sell government property (like federal buildings, land, or highways);*
- *default on part of the debt;*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs);*
- *do something else (please specify).*

The phrase "*both in the near and distant future*" was included so that respondents would consider not only the government's immediate response but also actions at arbitrarily distant horizons.

Among the listed answers is the option: *"Keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending ..."* We refer to this

answer as the *bubble* option.[14] Those who selected it received a follow-up question asking them to indicate which mechanisms enable the government to continue borrowing. We refer to this as the *bubble* question.[15] It read as follows:

In the previous question, you chose that "The government will keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)". Which of the following reasons do you think would allow the government to continue borrowing in this situation? (Pick all that apply)

- *Today's government bond investors believe that future investors will keep purchasing government debt.*
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms.*
- *The government will force private banks to buy its debt, for example, through financial regulation.*
- *Something else (please specify).*

The three options, which were presented in random order, correspond to a set of broad narratives for why government debt can be valued above the present value of conventional sources of financing: a speculative bubble, a convenience yield, and financial repression. As with the main financing question, these narratives may not be mutually exclusive.[16]

The previous two questions allow us to assess only the extensive margin of respondents' perceived financing options. They do not capture the intensive margin, namely, the relative importance respondents assign to each selected option. To assess the intensive margin, we asked respondents to allocate 100 percent of the national debt across the financing methods they had selected. For those who selected the bubble option, an additional step followed: they were asked to divide the share assigned to the bubble option

[14] Our wording of this option is longer than that of any other option in the list, which could make it more salient to respondents. To assess whether its length influenced the responses, we used a shorter wording of the bubble option in the supplementary survey. The results of this robustness exercise are presented in Appendix Figure A.5. In the supplementary survey, the option read: "*keep borrowing without ever collecting revenues above spending on goods, services, and social programs.*"

[15] In our supplementary household survey, we replaced this structured bubble question with an open-ended question, which reads "*Please explain your thinking when choosing this option in your own words ... .*"

[16] We use the term speculative bubble broadly, to denote any mechanism in which an asset is priced above its fundamental value because investors expect it to remain so. This includes rational bubbles in overlapping-generations models (Samuelson, 1958), bubbles arising from heterogeneous beliefs (Harrison and Kreps, 1978; Scheinkman and Xiong, 2003), extrapolative expectations (Barberis, Greenwood, Jin and Shleifer, 2018), and learning (Adam, Marcet and Nicolini, 2016), as well as bubble persistence under synchronization risk (Abreu and Brunnermeier, 2003). It also includes rational bubbles in models with idiosyncratic risk (Bewley, 1983; Woodford, 1990), which can themselves generate a safety yield and therefore fall partly under our second category.

across the specific mechanisms they chose in the bubble question.

The answers to the questions above provide respondents' views at a particular point in time. Economists and policymakers, however, are often interested in how these beliefs change when the economic environment changes. Instead of waiting for the environment to change, we asked respondents in Group 1 to think about a series of hypothetical scenarios.[17] These included a future scenario when a U.S. administration will have changed, a no-bubble scenario in which continued rollover was no longer possible (posed only to respondents who had earlier chosen the bubble option), and a high-debt scenario in which the debt-to-GDP ratio reached 150 percent. In each scenario, respondents were asked to reconsider their answers to the debt financing question. Finally, respondents were asked how they believed the government had financed its debt in the past. Appendices D.2.2, D.2.4, and D.2.5 provide the exact wording of these scenarios and questions.

Groups 2 and 3: military purchases and cash transfer shocks. Respondents in Groups 2 and 3 answered financing questions similar to those described above, but about new debt generated by two fiscal shocks: an increase in military spending for Group 2 and a universal cash transfer for Group 3.[18,19] Both scenarios specified the timing, size, financing, and motivation of the policy change. The military spending shock lasted one year, whereas the cash transfer was a one-time payment. Each shock amounted to 10 percent of GDP, was unanticipated, and was financed through the issuance of new debt without changes in other government spending or taxes while the shock lasted. The scenarios also stated that the policy changes were exogenous rather than responses to national security concerns or broader economic conditions. To verify that respondents understood the scenarios, we included a comprehension quiz asking them to identify all correct statements from a list. Respondents then selected the methods through which they expected the resulting debt to be financed and allocated the debt increase across those methods. We also asked respondents who expected higher tax revenues, whether through higher tax rates or an expanded tax base, if they believed that they would personally pay more taxes in

[17] One potential concern is that, since we ask the same respondents in Group 1 related questions that vary only in some features, they might infer which answers we expect and respond accordingly. In other words, the within-subject treatment effects could be influenced by experimenter demand effects. While this is possible, in our setting it is not obvious which government financing options are more likely under the different scenarios we consider. Moreover, existing evidence (De Quidt, Haushofer and Roth, 2018) suggests that experimenter demand effects are small in practice.

[18] To contextualize the military spending scenario, we explained that military purchases consist of current expenditures on goods and services and exclude long-term investments such as the construction of military bases and the purchase of aircraft and ships.

[19] We included the transfer shock for three reasons. First, respondents may have different moral attitudes toward military spending, which could affect their answers. Second, we wanted to examine whether the source of an increase in government debt affects beliefs about how that debt will be financed. Third, cash-transfer policies were an important source of government debt accumulation in many countries during the COVID-19 pandemic.

the future. Appendix Subsections D.3 and D.4 provide the complete scenarios and exact question wording.

4 Survey Results

This section presents our main results. We document households' perceptions of the current level of debt (Section 4.1) and of how it will be financed (Section 4.2), compare the latter to our expert (Section 4.3) and supplementary (Section 4.4) surveys, and then examine how financing expectations vary across hypothetical scenarios (Section 4.5), how they compare with perceptions of past debt financing (Section 4.6), and how they respond to macroeconomic shocks (Section 4.7).

4.1 Perceptions of the Current Level of Debt

At the beginning of the survey, each participant entered a numerical percentage corresponding to their estimate of the national debt-to-GDP ratio at the end of 2024.[20] The data show that the median respondent reports a ratio of 80 percent, compared to the actual level of 97 percent, implying a 17 percentage point gap between perception and reality. This is consistent with Roth, Settele and Wohlfart (2022), Bianchi, Dabla-Norris and Khalid (2025), and Eichenbaum, Guerreiro and Obradovic (2026), who also show that households underestimate the level of government debt. The answers are considerably dispersed: the cross-sectional standard deviation is 49 percentage points (Appendix Figure A.1).

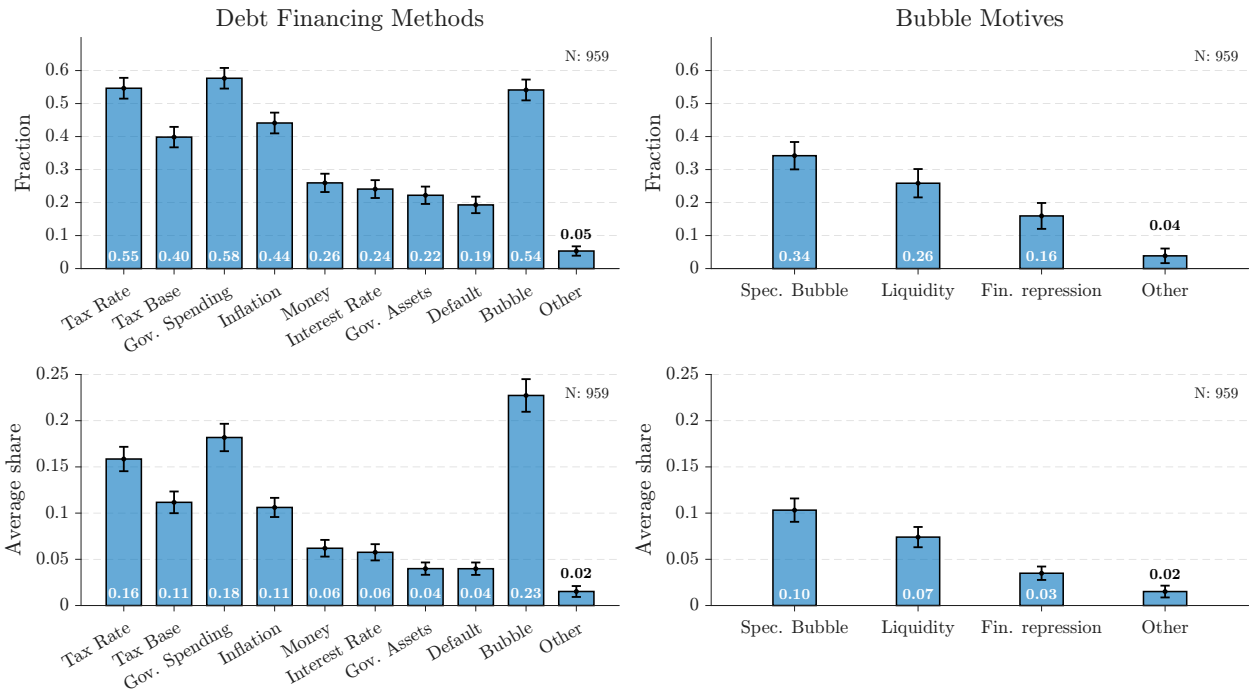
4.2 Overall Debt Financing

Out of 2,783 respondents, 959 were randomly assigned to Group 1 and first answered the current debt financing question. Of these, 519 selected the "bubble" option and were shown a follow-up bubble question. For the debt financing question, about half of respondents selected three or four options, with a substantial share selecting even more. Less than 10 percent of respondents chose a single answer. For the bubble motive question, most respondents selected only one explanation, and very few chose more than two.[21]

Figure 2 summarizes responses to the debt financing and bubble questions. The top left panel of Figure 2 indicates that the most commonly selected options are cutting government spending (58 percent), raising tax rates (55 percent), and continued rollover without surpluses (54 percent). A sizable fraction also believes the government will use infla-

[20] Excluding responses above 500 percent and missing or invalid entries leaves 2,752 answers.
[21] Appendix Figure A.2 displays the distribution of the number of responses selected in each question.

Figure 2: Current Debt Financing Methods



Notes: The top panels show the fraction of all respondents selecting each option; the bottom panels show the average share of debt allocated to each option. Whiskers denote 95% confidence intervals. The left panels correspond to the debt-financing question (N = 959). The right panels correspond to the bubble-motives question, assigning a share of zero to respondents who did not select the "keep borrowing" option (hence N = 959). In the bottom panels, average shares sum to 100% for debt-financing methods and to 23% for bubble motives. Labels correspond to the options as presented in Section 3.3 and appear in the same order.

tion to erode the real value of debt (44 percent). Channels such as money creation, default, government asset sales, and interest rate changes were less frequently chosen.

In the bubble follow-up question, 34 percent of respondents selected the "speculative bubble" ("*Today's government bond investors believe that future investors will keep purchasing government debt*") explanation for government debt rollover, 26 percent picked the liquidity motive, and 16 percent cited financial repression.[22]

Because most respondents chose more than one financing option, we rely on our quantitative (intensive-margin) question to assess the importance of these mechanisms (bottom-left panel of Figure 2). Respondents assign, on average, the largest share of the debt to the bubble channel (23 percent), followed by spending cuts (18 percent) and tax-rate increases (16 percent). Inflation and tax-base expansion each receive around 11 percent. Within the bubble channel, the average shares are 10 percent for the speculative bubble, 7.4 percent for liquidity services, and 3.5 percent for financial repression, with the remaining 2.1 percent assigned to "something else."

In sum, households expect the government to rely on a mix of conventional fiscal in-

[22]Non-respondents to the bubble question are assigned zero, so these values are relative to the full group.

struments and, notably, on rolling over the debt indefinitely without collecting surpluses, which receives the single largest average share (23 percent).

One may worry that the bubble option served as a residual category. For example, respondents unsure how the debt will be financed may have selected it as a default because typical households rarely think about government finance. Several features of the responses speak against this interpretation. The survey contains an explicit residual, the "do something else" option, and it attracts only 4 percent of respondents and an average share of 2 percent, while the bubble option is selected by more than half of respondents and receives the largest average share. Moreover, respondents who are arguably more knowledgeable give very similar answers: households holding financial assets, and bonds in particular, as well as those whose perceptions of the debt-to-GDP ratio are close to its actual value, report average shares very close to those in the full sample (Panel E of Figure 8, Appendix Figure B.8, Appendix Table B.4). The following sections provide further evidence: section 4.3 compares household responses with those of experts, and Section 4.4 summarizes the results of our supplementary household survey, in which we asked respondents to describe in their own words why they chose the bubble option.

4.3 Overall Debt Financing: Expert Views

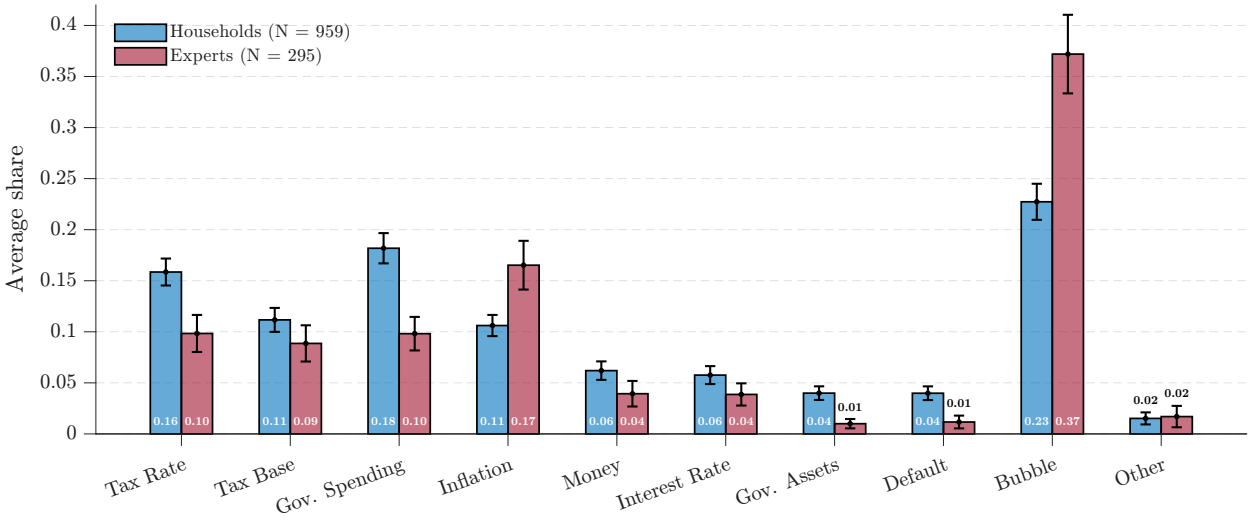
There is no single natural benchmark against which to compare the household responses just described. Historical data on debt financing speak only to past dynamics of government debt, while model-based projections are highly sensitive to the specific assumptions of the underlying model. We therefore consider responses from professional economists a natural benchmark for comparison.

Figure 3 compares the average perceived share of each financing method between households and experts. Notably, the bubble option is even more important for experts than for households: 37 vs. 23 percent. Furthermore, experts perceive inflation to be a more important method of government debt financing than households do: 16 percent vs. 11 percent. Experts are less likely than households to attribute financing to primary surpluses, and even less likely to attribute it to default or assets sale.

As in the household survey, experts who selected the bubble option received a follow-up question about the motives underlying their choice. Appendix Figure A.3 compares the average perceived share assigned to each bubble motive by households and experts.[23]

[23] In order to reduce fatigue and maximize the expert survey completion rate, we did not impose hard software constraints requiring financing shares to sum to 100 in the quantitative debt-financing question or to the reported bubble share in the bubble-motives question. As a result, for a small number of respondents (5 in the first question and 61 in the second), these constraints were violated. In those cases, we proportionally re-scaled the reported shares so that they satisfy the relevant adding-up constraint.

Figure 3: Debt Financing Expectations: Households vs. Experts



Notes: The figure compares the average share of debt allocated to each financing method by households (blue bars, N = 959) and experts (red bars, N = 295). Whiskers denote 95% confidence intervals. Shares assign zero to methods a respondent did not select. Labels correspond to the options as presented in Section 3.3.

Like households, experts assign larger shares to the speculative-bubble and liquidity motives (16 percent and 15 percent, respectively) than to financial repression (3 percent). These shares are uniformly higher than households', however, reflecting the larger overall allocation experts make to the bubble option.

Appendix Figure A.4 examines whether the aggregate expert responses mask heterogeneity within the sample by splitting it along three dimensions: self-reported confidence, prior exposure to our paper, and research field. The composition of expected financing is stable across all three cuts.

4.4 Overall Debt Financing: Supplementary Survey

Because we ran the expert survey in April 2026 and the main household survey in May 2025, we paired the expert survey with a supplementary household survey fielded in April–May 2026. Beyond providing a contemporaneous household benchmark, this survey shortened the wording of the bubble option to test whether option length affects responses, and we asked respondents to explain in their own words why they chose it.

As shown in Appendix Figure A.5, the average shares assigned to each debt-financing method are broadly similar across the main and supplementary household surveys. In particular, the bubble share is 21 percent in the supplementary survey, close to the 23 percent in the main survey. Relative to the main survey, however, respondents in the supplementary survey assign noticeably higher shares to inflation (14 percent vs. 11 percent) and money creation (9 percent vs. 6 percent), which could be explained by higher infla-

tion expectations due to a 40 percent increase in U.S. gas prices from February to April 2026, following an oil supply disruption in the Middle East.

We then asked respondents who chose the bubble option (256 households, or 53 percent of the supplementary sample) to explain their choice in an open-ended follow-up question. We code the resulting responses into narratives using an LLM-assisted annotation procedure validated against human coding (Haaland, Roth, Stantcheva and Wohlfart, 2025). The procedure applies a fixed codebook specifying, for each narrative, a label, a definition, inclusion and exclusion criteria, and representative examples (MacQueen, McLellan, Kay and Milstein, 1998). Appendix Table A.2 defines the narratives, and Figure A.6 reports the frequency of each.

A substantial share of respondents give explanations consistent with bubble-like reasoning. The most common narrative is extrapolation: 43 percent state that the government will keep rolling over debt because it has done so in the past. Another 11 percent describe rollover as a normal or institutional feature of government debt financing, and 7 percent point to the safe-asset role of U.S. debt or to international demand for it.[24] Overall, 54 percent mention at least one bubble-consistent narrative. Among these respondents, the average debt share attributed to the bubble is 42 percent.

Responses also emphasize supply-side explanations, which focus on the government's behavior rather than on investors' willingness to hold debt. Thirteen percent mention political constraints on fiscal adjustment, and 25 percent attribute continued borrowing to government irresponsibility, waste, or poor fiscal management. Only small shares point to money creation (3 percent) or expansion of the tax base (2 percent), both of which are already covered by other financing options of the survey. The remaining responses are classified as other substantive narratives (8 percent) or as unclear or non-informative (10 percent).

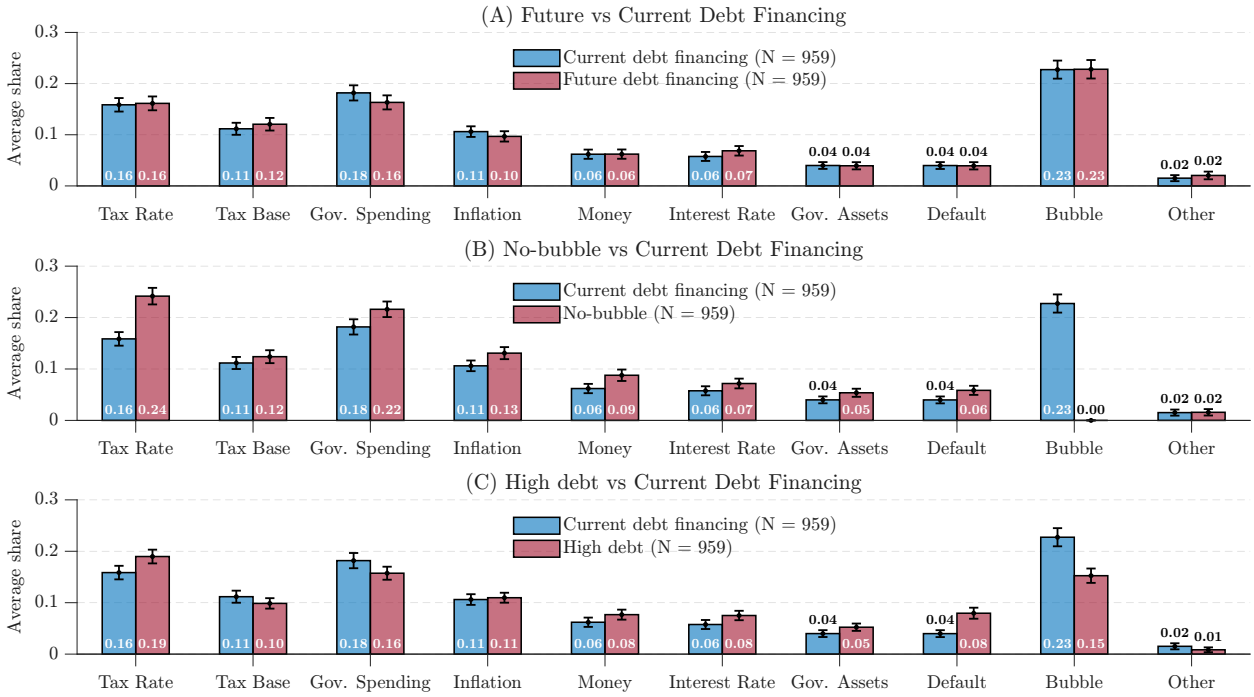
Taken together, the open-ended responses can be thought of as providing a lower bound for our estimate of the perceived role of bubble financing.

4.5 State Dependence

As we argued earlier, beliefs measured at a single point in time do not reveal how households would revise their expectations if economic circumstances changed. To address this limitation, we present results from the three hypothetical scenarios introduced in Section 3: the *future debt financing* scenario, in which the debt-to-GDP ratio remains unchanged at 97 percent after five years but the U.S. administration changes; the *no-bubble* scenario, which assumes that the government can no longer rely on continued borrowing; and the

[24] A response can be assigned to more than one category, so shares sum to more than 100 percent.

Figure 4: State Dependence



Notes: The figure displays the average share of debt allocated to each financing method in the baseline debt-financing question (blue bars, N = 959) and in each of three hypothetical scenarios (red bars): Future Debt Financing (Panel A), No Bubble (Panel B), and High Debt (Panel C). Whiskers denote 95% confidence intervals. In Panel B, the red bars combine the responses of the 519 respondents who saw the scenario with the baseline responses of the 440 respondents who did not see it (N = 959); for the latter, the baseline already corresponds to the no-bubble scenario, since they put zero weight on the bubble option.

high-debt scenario, where the debt-to-GDP ratio rises to 150 percent. Appendix Sections D.2.2, D.2.4, and D.2.5 present exact wording.

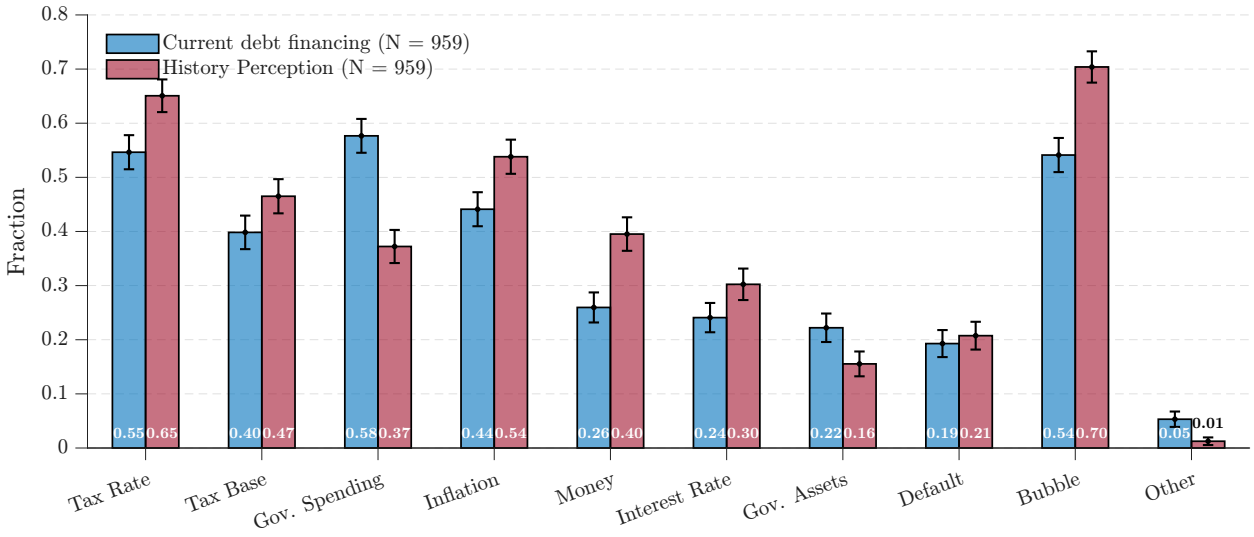
Only participants in Group 1 of the main household survey were shown these scenarios. Within this group, the no-bubble scenario was shown only to those who chose the bubble option in the debt-financing question (519 respondents).

Figure 4 compares the responses across the different scenarios and the current debt financing case (identical to the bottom left plot of Figure 2), showing the average share of debt allocated to each selected item.[25]

In the *future debt financing* scenario (Panel A of Figure 4), the resulting distribution is almost identical to the current debt financing benchmark, indicating that expectations are stable over the medium run, even though the scenario places respondents at a date when the U.S. administration will most likely have changed. In the *no-bubble* scenario (Panel B), the absence of the bubble option leads to a broad redistribution of responses. All channels see an increase the shares, with the largest jump in tax rate increases. In

[25]For the no-bubble scenario, the red bars combine the responses of the 519 respondents who saw the scenario with the original responses of the 440 respondents who did not choose the bubble option and therefore did not see it. We include the latter group because they already believe they live in such a world.

Figure 5: Current vs. Historical Debt Financing Perception



Notes: The figure compares the fraction of respondents selecting each financing method in two questions: current debt financing (blue bars, N = 959) and historical debt financing (red bars, N = 959). Whiskers denote 95% confidence intervals. Respondents could select multiple methods, so the fractions sum to more than one across methods.

the *high-debt* scenario (Panel C), the bubble channel receives a noticeably smaller weight, while taxation, default, and interest rate options take on a larger role. Households thus appear to treat rollover capacity as bounded.

The decline in the bubble share in Panel C conceals a notable regularity: the expected rollover amount is essentially unchanged relative to GDP. At the current debt level, respondents expect $0.97 \cdot 0.23 \approx 0.223$ of GDP to be rolled over forever; at 150 percent of GDP, they expect $1.5 \cdot 0.15 \approx 0.225$. Although these are only two points, respondents seem to expect the rollover amount, rather than its share of debt, to remain stable relative to GDP. In models with *log* debt in the utility function, such as the one we present in Section 6, the steady-state bubble is constant relative to GDP, regardless of the level of debt.

4.6 Historical Debt Financing Perception

Finally, we asked respondents a qualitative (extensive margin) question about their perception of historical debt financing.[26] Figure 5 shows the fraction of respondents selecting each financing method in response to the two questions: red bars for perceptions about the past and blue bars for the future beliefs, corresponding to those presented in the top left plot of Figure 2.

[26] We did not ask a quantitative question about historical debt financing perception to keep the survey relatively short.

Figure 5 reveals several notable differences. Rollover is the most frequently selected option for the past, chosen by 70 percent of respondents, compared with 54 percent who expect rollover going forward.[27] The nominal channels are also viewed as more prevalent historically: inflation is selected by 54 percent (vs. 44 percent for the future) and money creation by 40 percent (vs. 26 percent). Tax rate increases and tax base growth follow the same pattern (65 percent vs. 55 percent, and 47 percent vs. 40 percent). Spending cuts are the exception, moving sharply in the opposite direction: only 37 percent believe they were used in the past, while 58 percent expect them going forward. Government asset sales, interest rates, and default change relatively little.[28]

Overall, respondents perceive past debt financing as leaning more heavily on rollover and on nominal channels (inflation and money creation) while their expectations for the future shift toward spending cuts.

4.7 Conditional Debt Financing

The last set of hypothetical scenarios concerns the financing of newly issued debt arising from fiscal shocks: an increase in military spending, shown to Group 2 (922 respondents), and a universal cash transfer, shown to Group 3 (902 respondents).

New debt financing expectations. Figure 6 shows respondents' financing expectations of the newly issued debt following each fiscal shock. The top panel shows the average shares of newly issued debt allocated to each financing method, while the bottom panel displays the average shares allocated to each bubble motive. As a benchmark, each panel also reports the corresponding responses to the current debt financing question from Section 4.2.[29]

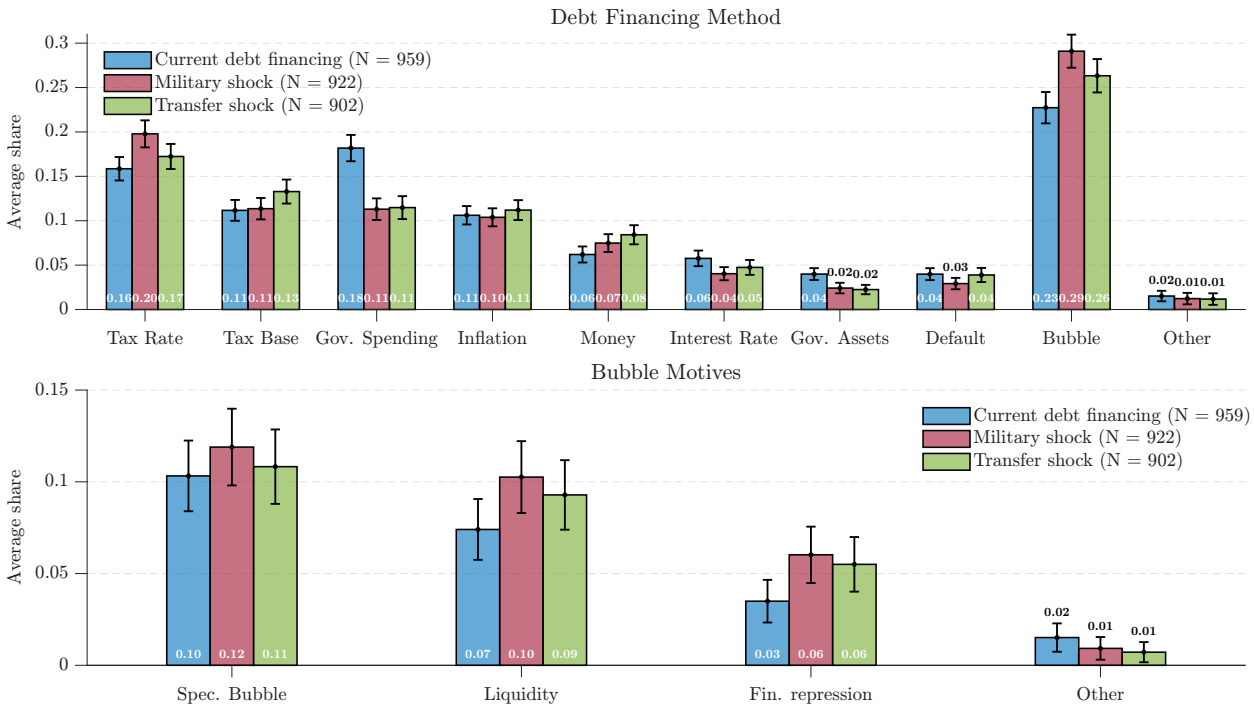
The shares of newly issued debt allocated to each financing option are nearly identical across the military (red bars) and transfer (green bars) scenarios. There are small differences, however. Tax-rate increases and the bubble option receive slightly larger shares in the military shock case, while tax-base expansion, inflation, money creation, and default

[27] The term "Bubble" in relation to historical financing in the figure refers to the rollover option: "*kept borrowing (rolling over the debt) without collecting revenues above government spending (on goods, services, and social programs).*" The two rollover options are not perfectly symmetric. A question about the past cannot refer to indefinite rollover, so the historical option asks whether the government kept borrowing to repay maturing debt, whereas the future option specifies rollover potentially forever. The historical share is therefore best read as rollover to date rather than perceived bubble financing. See Appendix Section D.2.3 for the wording of the other options.

[28] Although the U.S. is conventionally described as never having defaulted, the 21 percent of respondents selecting default for the past need not be wrong: U.S. technical defaults include the abrogation of gold clauses in 1933–34 (Edwards, 2018) and a delay in Treasury bill payments in 1979 (Zivney and Marcus, 1989).

[29] Appendix Figure A.7 shows the fraction of respondents selecting each financing method.

Figure 6: Newly Issued Debt Financing: Military vs. Transfer Shock



Notes: The figure displays the average share of debt allocated to each financing method (top panel) and to each bubble motive (bottom panel), with whiskers denoting 95% confidence intervals, for the baseline debt-financing question (blue bars, N = 959), the military spending shock (red bars, N = 922), and the cash transfer shock (green bars, N = 902). For the baseline, shares refer to the current stock of debt; for the two shocks, to the newly issued debt.

are marginally higher in the transfer shock case.

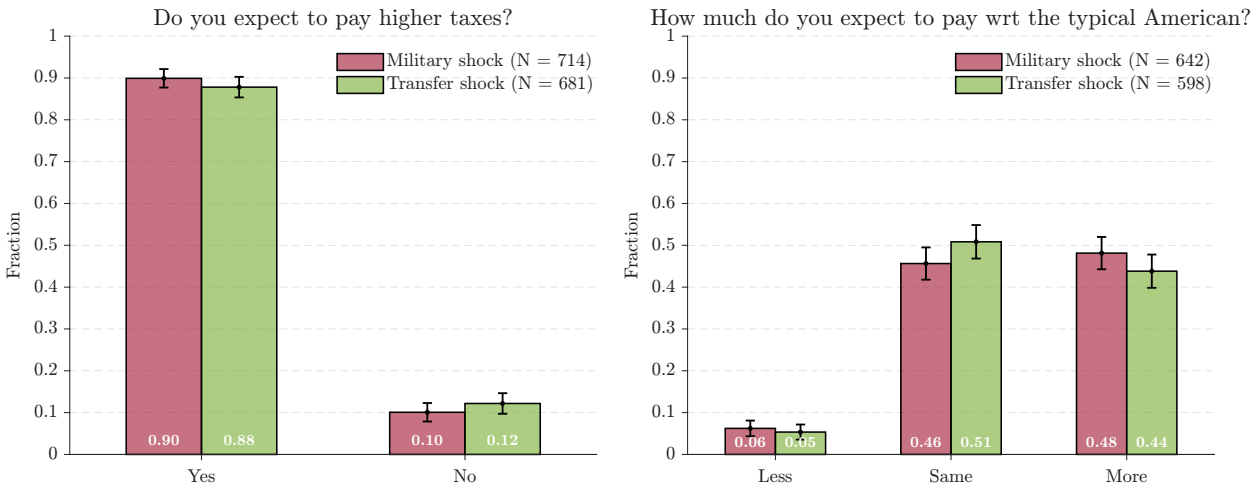
Relative to the baseline (blue bars), both shocks shift expected financing toward tax-rate increases, tax-base expansion, and the bubble option, and away from spending cuts.

The bottom panel of Figure 6 shows that the distribution of average shares across motives is very similar in the case of the two shocks. However, compared to the current debt financing case, the share attributed to the liquidity and financial repression explanations receive slightly higher average weights.

Perceived taxation. Figure 7 reports respondents' expectations about their own tax burden following the military and transfer shocks. The left panel shows whether respondents expect to pay higher taxes in the future. This question was shown only to respondents who selected the tax-rate or tax-base option as a financing method. The right panel compares their expected burden with that of the typical American. This question was shown only to respondents who answered in the previous question that they expect to pay higher taxes.

Expectations are consistent across the two shocks. Most respondents (90 and 88 percent) expect to pay higher taxes and most expect to pay at least as much as the typical

Figure 7: Perceived Personal Tax Burden: Military vs. Transfer Shock



Notes: The left panel reports the fraction of respondents who expect to pay higher taxes in the future; the right panel reports how respondents compare their expected tax burden with that of the typical American. Whiskers denote 95% confidence intervals. Results are shown separately for the military spending (red bars) and cash transfer (green bars) shocks. The first question was shown only to respondents who selected the tax-rate or tax-base option as a financing method (left panel: N = 714 and 681). The second question was shown to those who answered "Yes" to the first question (right panel: N = 642 and 598).

American.[30]

5 Survey Results: Heterogeneity

So far, we have focused on average responses across households. However, individual characteristics, such as education, political preferences, and financial market participation, may be associated with different debt-financing beliefs. This section examines such heterogeneity.

We begin with a small set of characteristics for which there are clear prior reasons to expect differences in fiscal beliefs. Educational attainment shapes exposure to economic reasoning. Parental status may make respondents more forward-looking, as parents partly internalize the fiscal burden their children may inherit. Political affiliation is a natural candidate given that Republicans have for decades positioned themselves as pro-

[30]Our respondents' expectation of personally paying higher taxes is consistent with the self-incidence beliefs documented by Bianchi, Dabla-Norris and Khalid (2025), who find that respondents across income groups expect the burden of fiscal adjustment to fall on themselves, and with the tax-burden expectations that Wu, Xie, Xie and Zhang (2025) elicit after hypothetical government spending shocks. It may appear to contrast with Eichenbaum, Guerreiro and Obradovic (2026), who find that households do not revise their expected own tax liabilities after an economy-wide transfer. The latter finding is compatible with ours for two reasons. First, our respondents allocate the new debt over an unrestricted horizon, whereas Eichenbaum, Guerreiro and Obradovic (2026) elicit expected own tax payments at one- to six-year horizons. Second, our personal-tax question was asked only of respondents who had already selected tax-based financing.

Figure 8: Current Debt Financing Methods by Demographics



Notes: The figure shows the average share of debt allocated to each financing method among Group 1 respondents, separately by educational attainment (Panel A), parental status (Panel B), political preferences (Panel C), employment status (Panel D), and bond-holding status (Panel E). Whiskers denote 95% confidence intervals. Group sizes are reported in the panel legends.

ponents of prudent government finances. Employment status proxies for income. Finally, holding bonds may lead respondents to think more carefully about what makes government debt valuable. Figure 8 compares average debt-financing shares across these five characteristics, one at a time.

Across all five splits, responses are qualitatively similar: in every group, spending cuts and the bubble option rank among the largest shares, followed closely by the two tax channels. The quantitative differences, however, are visible and line up with the priors above. The starkest split is political: Republicans assign 11 percentage points less to the bubble option than Democrats (16 versus 27 percent) and correspondingly more to tax-base growth and spending cuts. Respondents without a college degree assign more to the bubble than college graduates (24 versus 20 percent), as do the unemployed relative to the employed (27 versus 21 percent), with both groups assigning correspondingly less

to the surplus-based options. Parents assign more to tax-rate increases and less to the bubble than non-parents, and bondholders assign slightly more to the bubble than non-bondholders (24 versus 22 percent).

Each of these comparisons conflates several characteristics at once: education, employment, and bondholding can be correlated, so any single split partly reflects the others. Moreover, the survey collects a considerably richer set of respondent characteristics than the five shown in the figure. To assess which associations survive conditioning on the full set, we estimate regressions with all collected characteristics as controls and report the results in Appendix B.

The regression results, summarized in Appendix Table B.4, largely confirm the findings in Figure 8. The political gap is essentially unchanged: conditional on all other characteristics, Republicans expect the bubble to account for a nearly 10 percentage point smaller share of debt than Democrats. The education difference also survives: respondents without a college degree assign smaller shares to the surplus-based options and a larger share to the bubble. The gap between bondholders and non-bondholders widens from 2 percentage points in the raw comparison to 5 percentage points. Moreover, the regressions uncover new associations. For example, women assign a smaller share to the bubble than men.

Finally, while several characteristics are significantly associated with the answers, the R^2 of these regressions remains around or below 10 percent. Most of the variation in debt-financing beliefs is not explained by observables.

6 Debt Financing in a New Keynesian Model

This section quantifies the implications of the public debt financing expectations elicited in our survey for the transmission of fiscal shocks. We embed them in a conventional New Keynesian model in which government debt enters the utility function and calibrate the model so that its equilibrium financing shares match those reported by our respondents. We then study transition dynamics after fiscal shocks comparable to the hypothetical scenarios in our survey.[31]

[31] In the case of the overall government debt, it is unclear how respondents perceive the current (or future) macroeconomic situation. For example, a respondent may believe that the U.S. economy, and government debt in particular, is undergoing a post-COVID transition back to a previous steady state, or alternatively, toward a new steady state shaped by the new U.S. administration.

6.1 Model

The model is a version of the standard New Keynesian framework (Galí, 2015) extended with utility from real money balances and real government bond holdings (Michaillat and Saez, 2021; Mian, Straub and Sufi, 2025). It consists of a closed economy populated by a continuum of identical households and a continuum of monopolistically competitive firms, both with rational expectations, a fiscal authority, and a central bank. Each firm produces a single differentiated variety using labor in a linear technology and resets its nominal price with probability $1-\theta$, as in Calvo (1983). Households consume a constant-elasticity-of-substitution bundle of all varieties, supply labor at a competitive wage common across households, own equal shares of all firms from which they receive dividends, and trade one-period nominal government bonds and money. The government finances its expenditures by levying lump-sum taxes, issuing bonds, and selling public goods and services. Tax revenues are set according to a fiscal rule that responds to outstanding government debt, and government spending responds countercyclically to output. The central bank follows a Taylor rule, passively accommodates money demand, and rebates its profits to the government.

The economy can be described by the following log-linearized equilibrium conditions, which we derive in Appendix C. Aggregate consumption satisfies the Euler equation associated with the optimal choice of government bonds:

$$\hat{c}_t = \frac{\sigma\,(1-\alpha)}{v_b s_b}\widetilde{b}_t + \alpha \mathbb{E}_t\left[\hat{c}_{t+1}\right] - \sigma\left(\hat{i}_t - \alpha \mathbb{E}_t\left[\pi_{t+1}\right]\right), \tag{4}$$

where $\hat{c}_t$ is the percentage deviation of consumption from steady state, $\widetilde{b}_t$ is the deviation of government bond holdings from steady state normalized by steady-state aggregate output, $\hat{i}_t$ is the log deviation of the gross nominal interest rate paid on one-period nominal government bonds from the steady state, and π_t is inflation. The parameters σ and v_b are, respectively, the elasticity of intertemporal substitution and the elasticity of bond demand with respect to the interest rate, s_b is the steady-state ratio of government bonds to output, and $\alpha \equiv \beta/Q \in (0,1]$ is the ratio of the household's subjective discount factor to the steady-state price of government bonds. The Euler equation explicitly features the real bond stock on the right-hand side. Intuitively, higher bond holdings reduce the marginal utility of wealth beyond a standard effect from an increase in consumption. This, in turn, weakens households' incentive to save and stimulates current consumption.

The inflation rate satisfies the standard New Keynesian Phillips curve

$$\pi_t = \beta \mathbb{E}_t\left[\pi_{t+1}\right] + \widetilde{\kappa}\left[\hat{y}_t - \Gamma\left(\widetilde{g}_t - \widetilde{f}_t\right)\right], \tag{5}$$

where $\widetilde{\kappa}$ and Γ are composite parameters representing, respectively, the sensitivity of current inflation to the output gap and the fiscal multiplier under flexible prices. $\hat{y}_t$ is the percentage deviation of privately produced goods from steady state. $\widetilde{g}_t$ are government purchases of goods and services and $\widetilde{f}_t$ are government sales of goods and services. Both are expressed as deviations from steady state and normalized by steady-state output.[32]

Aggregate household and government consumption $\hat{c}_t$ and $\widetilde{g}_t$, and aggregate private and government production satisfy the goods market clearing condition

$$\hat{y}_t + \widetilde{f}_t = \widetilde{g}_t + s_c \hat{c}_t, \tag{6}$$

where s_c equals the consumption to private output share in steady state.

The behavior of the government is summarized by a set of rules. The monetary authority follows a Taylor rule

$$\hat{i}_t = \phi_\pi \pi_t + \phi_b s_b^{-1} \widetilde{b}_t, \tag{7}$$

where the short-term nominal interest rate on government bonds reacts to changes in inflation and to variation in government debt with $\phi_\pi \geq 0$ and $\phi_b \leq 0$. The fact that the interest rate reacts negatively to changes in government debt captures the idea that the central bank lowers the government's cost of financing when debt is above its steady-state level. We allow for this possibility because our survey results reveal that, following an increase in government spending or transfers, households expect a positive share of government debt to be financed by interest-rate adjustments. This is in contrast to what a model without such an extra term would deliver. Specifically, a fiscal expansion typically stimulates output, increases inflation, and prompts the central bank to increase the interest rate, making it harder for the government to finance debt.

The fiscal authority collects revenues according to a rule that responds to government debt

$$\widetilde{\tau}_t = \psi_b \widetilde{b}_{t-1} + \varepsilon_t^\tau, \tag{8}$$

where $\widetilde{\tau}_t$ is the deviation of tax revenues from steady state normalized by output, ε_t^τ is an unexpected deviation from the rule, and $\psi_b \geq 0$. Government spending responds countercyclically to the business cycle

$$\widetilde{g}_t = \mu_y \hat{y}_t + \varepsilon_t^g, \tag{9}$$

where ε_t^g is an unexpected deviation from the rule and $\mu_y \leq 0$.

When the public debt exceeds its steady-state value, the government chooses to sell public goods. This assumption approximates the government's ability to sell public as-

[32] We assume that f_t equals zero in steady state.

sets without introducing an additional state variable.[33] The following rule describes this behavior

$$\widetilde{f}_t = \vartheta_b \widetilde{b}_{t-1}. \tag{10}$$

The log-linearized flow budget constraint of the government is

$$\widetilde{b}_t = \alpha\beta^{-1}\widetilde{b}_{t-1} - \alpha\beta^{-1}\left(\widetilde{s}_t + \widetilde{f}_t\right) + s_b\left(\hat{i}_t - \alpha\beta^{-1}\pi_t\right) - \alpha\beta^{-1}\left(\widetilde{m}_t - \widetilde{m}_{t-1} + s_m\pi_t\right), \tag{11}$$

where s_m is the steady-state ratio of money supply to output, $\widetilde{s}_t \equiv \widetilde{\tau}_t - \widetilde{g}_t$ is the primary surplus and $\widetilde{m}_t$ is the deviation of money supply from steady state, normalized by steady-state output, which, in turn, is given by money demand that satisfies the following Euler equation

$$\hat{c}_t = \sigma\left(1-\beta\right)v_m^{-1}s_m^{-1}\widetilde{m}_t + \beta\mathbb{E}_t\left[\hat{c}_{t+1}\right] + \sigma\beta\mathbb{E}_t\left[\pi_{t+1}\right]. \tag{12}$$

Equilibrium. Given the initial conditions $\{\widetilde{b}_{-1}, \widetilde{m}_{-1}\}$ and the paths of the exogenous fiscal shocks, an equilibrium of this model is a collection of sequences $\{\hat{c}_t, \hat{y}_t, \widetilde{g}_t, \widetilde{\tau}_t, \widetilde{f}_t, \widetilde{b}_t, \widetilde{m}_t, \pi_t, \hat{i}_t\}_{t=0}^{\infty}$ that satisfies equations (4)-(12) and the household transversality conditions (Appendix C.1).

Intertemporal budget constraint. Iterating forward the government flow budget constraint and imposing the household transversality condition with respect to government bonds, which are explicitly stated in Appendix C, we obtain the intertemporal budget constraint

$$\begin{aligned}\widetilde{b}_{t-1} = \mathbb{E}_t\sum_{k=0}^{\infty}\beta^k\Big[&\widetilde{s}_{t+k} + \widetilde{f}_{t+k} - s_b\left(Q\hat{i}_{t+k} - \pi_{t+k}\right) + \left(\Delta\widetilde{m}_{t+k} + s_m\pi_{t+k}\right)\\ &+ \left(Q-\beta\right)\widetilde{b}_{t+k}\Big].\end{aligned} \tag{13}$$

Shocks. We will study the reaction of the economy described above to one-time unanticipated shocks to either government purchases or transfers. Specifically, to mimic the experiments in our survey, we will assume that in period $t = 0$, the government announces either of two sequences of shocks: $\{\epsilon_t^g\}_{t=0}^{\infty} = \{0.1, 0.1, 0.1, 0.1, 0, 0, \ldots\}$, $\{\epsilon_t^\tau\}_{t=0}^{\infty} = \{-0.4, 0, 0, 0, 0, 0, \ldots\}$. That is, the government either increases its military purchases by 10 percent of quarterly GDP for four quarters or makes a one-time cash transfer of 40 percent of quarterly GDP (equivalent to 10 percent of annual GDP). In addition, we assume that the government does not change its spending and tax collection as prescribed by the fiscal

[33] Note that while the total government revenues are $\widetilde{\tau}_t + \widetilde{f}_t$, we separate them into two components to map them to our survey responses.

rules when the shocks are active. This assumption reflects the description of the hypothetical scenarios in the survey.

Discussion. Agents in the model hold common beliefs, whereas Section 5 documents substantial heterogeneity, much of it unrelated to observables. Even in linearized models, dispersed beliefs prevent the economy from reducing to a representative agent holding the average belief and can generate myopia and anchoring in aggregate dynamics (Angeletos and Huo, 2021). We view our exercise as a common-belief benchmark for future work incorporating belief heterogeneity.[34]

Debt in the utility function is a non-structural way of letting households value government debt beyond its pecuniary return. Structural mechanisms, such as uninsurable idiosyncratic risk (Bewley, 1977; Huggett, 1993; Aiyagari, 1994) and overlapping generations (Samuelson, 1958), can deliver the same aggregate outcome. In fact, Angeletos, Collard and Dellas (2023) construct an idiosyncratic-risk economy that is isomorphic, in terms of aggregates, to a debt-in-utility model, and Brunnermeier, Merkel and Sannikov (2024) show that, in a model with idiosyncratic risk, government bonds are priced with a synthetic discount factor equal to a weighted average of individual households' discount factors. We therefore view the specification as a parsimonious stand-in for these mechanisms rather than a structural assumption.

Our model abstracts from sovereign default. Explicitly incorporating it would allow us to match the corresponding perceived financing share, but that share is just 3 percent, and the required machinery would considerably complicate the exposition.

6.2 Debt Financing Decomposition

Writing the intertemporal budget constraint (13) in period $t = 0$, and taking into account the shock structure together with no endogenous fiscal policy response during the quarters when the shocks are active, as described in the above Section 6.1, we define the debt

[34] One simple avenue would be a model with heterogeneous beliefs in which a fraction of agents holds rational expectations and the remaining fraction has level-1 beliefs, as in the level-k thinking literature. The latter agents do not change their beliefs about any future variables, including fiscal ones. As a result, they can be thought of as perceiving all government financing as a bubble. See Section 6 of Bianchi-Vimercati, Eichenbaum and Guerreiro (2024) for a discussion along these lines. Such a model would also align naturally with the evidence from our supplementary survey, in which a considerable fraction of respondents who chose the bubble option provided extrapolative narratives.

financing decomposition as

$$1 = \underbrace{\frac{s_b Q \mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \left(-\hat{i}_k\right)}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Nominal interest rate}} + \underbrace{\frac{\left(s_b + s_m\right) \mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \pi_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Inflation}} + \underbrace{\frac{\mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \Delta \widetilde{m}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Money printing}}$$
$$+ \underbrace{\frac{\mathbb{E}_0 \sum_{k=T}^{\infty} \beta^k \widetilde{s}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Primary surpluses}} + \underbrace{\frac{\mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \widetilde{f}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Gov. goods sale}} + \underbrace{\frac{(Q-\beta) \mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \widetilde{b}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{“Bubble”}}, \tag{14}$$

where $\widetilde{s}_k^{\text{exo}} \equiv -\epsilon_k^g$ and $T = 4$ in the case of the government spending shock, and $\widetilde{s}_k^{\text{exo}} \equiv \epsilon_k^\tau$ and $T = 1$ in the case of the transfers shock.

Decomposition of primary surpluses. We next decompose the primary surplus term on the right-hand side of equation (14) into three components: (i) adjustment of the tax *rate*, (ii) changes in the tax base, and (iii) changes in government spending.

To decompose tax revenues into tax rate and tax base, which in this model is purely an accounting exercise since all taxes are lump sum, we assume that tax revenues take the form $\tau_t = \underline{\tau} + \psi_{y,t} y_t$, where we refer to $\psi_{y,t}$ as the tax rate and y_t as the tax base.[35] The log-linear approximation of the decomposition is:

$$\widetilde{\tau}_t = \underbrace{\psi_y \hat{\psi}_{y,t}}_{\text{Tax Rate}} + \underbrace{\psi_y \hat{y}_t}_{\text{Tax Base}} .$$

Consequently, we have

$$\underbrace{\frac{\mathbb{E}_0 \sum_{k=T}^{\infty} \beta^k \widetilde{s}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Primary surpluses}} = \underbrace{\frac{\psi_y \sum_{T=4}^{\infty} \beta^k \hat{\psi}_{y,k}}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Tax rate}} + \underbrace{\frac{\psi_y \sum_{T=4}^{\infty} \beta^k \hat{y}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Tax base}} + \underbrace{\frac{-\mu_y \sum_{T=4}^{\infty} \beta^k \hat{y}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Gov. spending}} . \tag{15}$$

6.3 Calibration

We assume that each period corresponds to one quarter. The calibrated parameters are summarized in Table 1.

We set the elasticities of intertemporal substitution, money demand, and government bond demand, as well as the Frisch elasticity to one. The steady-state nominal interest rate on government bonds is $i = 0.005$, corresponding to an annual rate of two percent.

[35] We allow for a constant $\underline{\tau}$, which can be either positive (business cycle invariant taxes) or negative (business cycle invariant tax credits), to be able to set a steady state tax *rate* different from a historical average fraction of tax revenues over GDP of roughly 0.2.

Table 1: Calibration Parameters

Parameter	Description	Value
Demand block		
σ	EIS	1
φ	Frisch elasticity	1
υ_b	Elasticity of gov. bond demand	1
υ_m	Elasticity of money demand	1
χ_b	Bonds-in-utility parameter	0.266
χ_m	Money-in-utility parameter	0.057
β	Subjective discount factor	0.94
Supply block		
$\widetilde{\kappa}$	Phillips curve slope	0.0066
Policy		
μ_y	Gov. spending-GDP elasticity	-0.51
ψ_y	Steady state tax rate	0.51
ψ_b	Tax revenues reaction to debt	0.085
ϕ_b	CB reaction to debt	-0.042
ϕ_π	CB reaction to inflation	1.5
ϑ_b	Sensitivity of gov. goods sales to debt	0.0048
s_g	Steady state gov. spending to GDP	0.2

The parameter χ_m, which governs the strength of preferences for holding real money balances, is chosen to match the end-of-2024 value of currency in circulation relative to GDP, equal to 0.75 at a quarterly frequency (or 0.19 on an annual basis). The probability of price adjustment $1-\theta$ is calibrated to match the slope of the Phillips curve of 0.0066 estimated by Hazell, Herreno, Nakamura and Steinsson (2022). The central bank's response to inflation in the Taylor rule is set to 1.5, and the steady-state ratio of government purchases to GDP is 0.2, the post-World War II average.

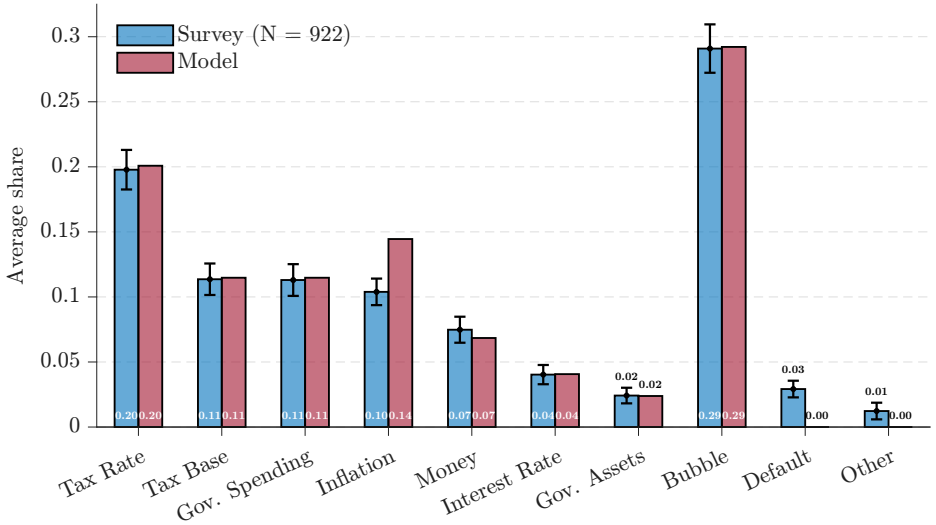
The remaining parameters, which are the subjective discount factor, the fiscal policy parameters, the Taylor-rule elasticity with respect to debt, and the relative preference weight on debt in the utility function, are jointly calibrated to best match the expected composition of government debt financing following a government spending shock.[36] The calibration also targets the end-of-2024 public debt-to-GDP ratio of 3.85 when GDP is measured quarterly, equivalent to 0.97 when GDP is measured annually.[37]

We set the subjective discount factor β to 0.94, corresponding to an annual value of 0.78. This is lower than the values typically assumed in the macroeconomic literature,

[36] We do not match the default and "Other" categories, as our model features neither.

[37] This measure of debt-to-GDP includes government bonds held by foreigners. We calibrate our closed-economy model to this broader measure because our survey question refers to debt held by the public, which also includes foreign holdings.

Figure 9: New Debt Financing after Military Shock: Survey vs. Model



Notes: The figure displays the average share of newly issued debt allocated to each financing method following a military spending shock, in our survey (blue bars, N = 922) and in the calibrated model (red bars). Whiskers denote 95% confidence intervals for the survey shares. The model features neither default nor the "other" category, so its shares for these two methods are zero by construction. Categories ordered with the model-matched methods first.

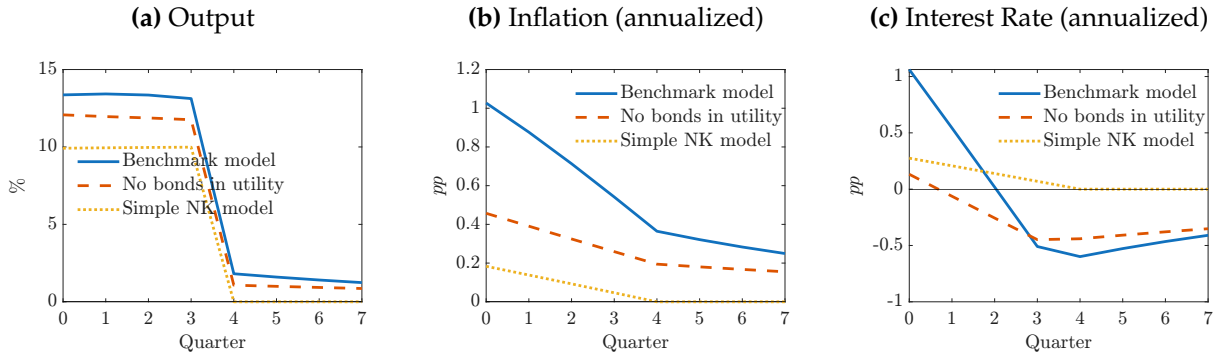
where the discount factor is often calibrated to match a low real interest rate on government bonds. The reason households are willing to purchase government bonds that yield only a modest return in our model is because these bonds enter the utility function. Moreover, the discount rate of 0.78 is well in the range of micro estimates of subjective discounting in the behavioral economics literature (Frederick, Loewenstein and O'Donoghue, 2002).

We also note that a low discount factor need not imply a large premium on alternative assets relative to government bonds if those assets are also valued for their non-pecuniary services. Michaillat and Saez (2021) and Mian, Straub and Sufi (2025) present models in which household wealth as a whole enters the utility function. The former uses an annual discount factor β of 0.57, the latter 0.84. In these models, government debt and alternative assets are perfect substitutes in the utility function, so a low discount factor generates no spread between them.

Figure 9 compares the financing shares from our survey to those generated by our model. Since the model features neither default nor the "other" category present in our survey, we do not match the debt financing shares perfectly. Additionally, the inflation share is somewhat higher in the model than in the survey. This is because our calibration targets the measured Phillips curve slope instead of adjusting it to fit the inflation financing share.

Having calibrated the model, we present several exercises to investigate its properties.

Figure 10: Model Impulse Responses to Military Spending Shock



Notes: The figure shows the impulse responses of output, inflation, and the interest rate to a military spending shock $\{\epsilon_t^g\}_{t=0}^{\infty} = \{0.1, 0.1, 0.1, 0.1, 0, 0, \ldots\}$ announced in period 0. Blue solid lines: benchmark calibration; orange dashed lines: benchmark without bonds in the utility function; yellow dotted lines: the simple three-equation New Keynesian model.

6.4 Bonds in Utility and Debt-Sensitive Taylor Rule

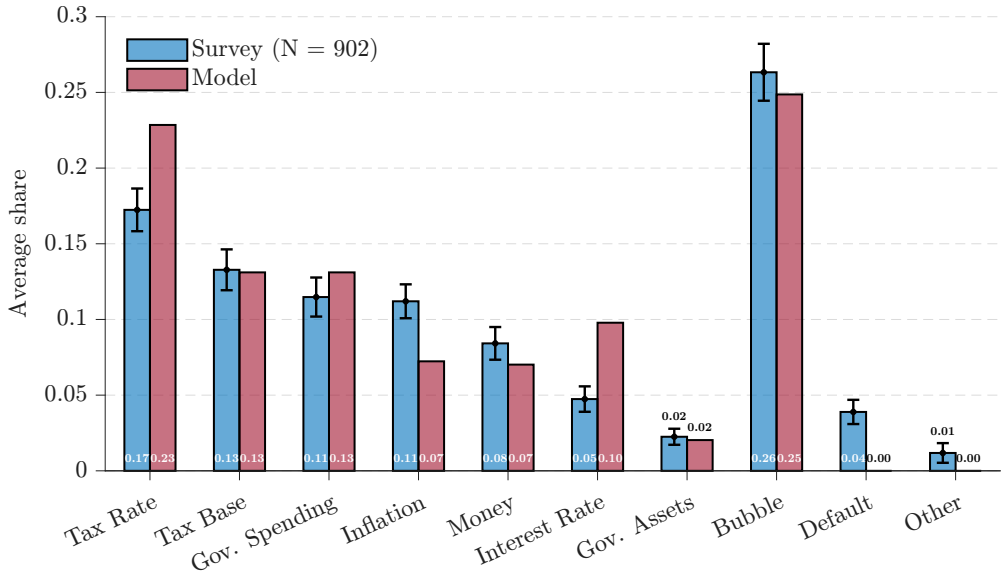
This section compares the responses of output, inflation, and the nominal interest rate to an increase in military spending under three scenarios: (i) benchmark calibration, (ii) benchmark calibration without debt in the utility function, (iii) benchmark calibration without debt and money in the utility function, without government assets sale, without interest rate responses to variation in government debt, and without government spending reaction to the state of the business cycle. The third scenario is, in other words, a simple New Keynesian model.[38]

Figure 10 compares the responses of output, inflation, and the nominal interest rate across three alternative calibrations. The yellow line represents the response of the simple three-equation New Keynesian model. As shown in the left panel, output rises by nearly the same amount as the increase in military spending, implying a fiscal multiplier close to but below one. This occurs because the slope of the Phillips curve is relatively flat, which limits changes in inflation. Consequently, the real interest rate remains almost unchanged.

Under the benchmark calibration (blue line), the output increases by 13.7 percent (implying an on-impact fiscal multiplier of 1.37), whereas without bonds in the utility function, the response is only 12.1 percent, a difference of 13 percent. Two main factors drive the high fiscal multiplier of 13.7. First, when the central bank reacts to higher debt by lowering the nominal interest rate (orange and blue lines in the right panel of Figure 10), it provides additional stimulus beyond the direct fiscal effect. Second, including bonds in the utility function makes government debt net wealth, as households do not expect to

[38] In scenarios (ii) and (iii), we recalibrate the subjective discount factor to match the steady state interest rate on government bonds, following the usual practice when comparing economies with and without an extra source of asset demand (e.g., Kaplan, Moll and Violante, 2018; Debortoli and Galí, 2025).

Figure 11: New Debt Financing after Transfer Shock: Survey vs. Model



Notes: The figure displays the average share of newly issued debt allocated to each financing method following a cash transfer shock, in our survey (blue bars, N = 902) and in the calibrated model (red bars). Whiskers denote 95% confidence intervals for the survey shares. The model features neither default nor the "Other" category, so its shares for these two methods are zero by construction. Categories ordered with the model-matched methods first.

fully offset it through future taxes. As a result, the direct fiscal stimulus is less crowded out than in the standard three-equation New Keynesian model.

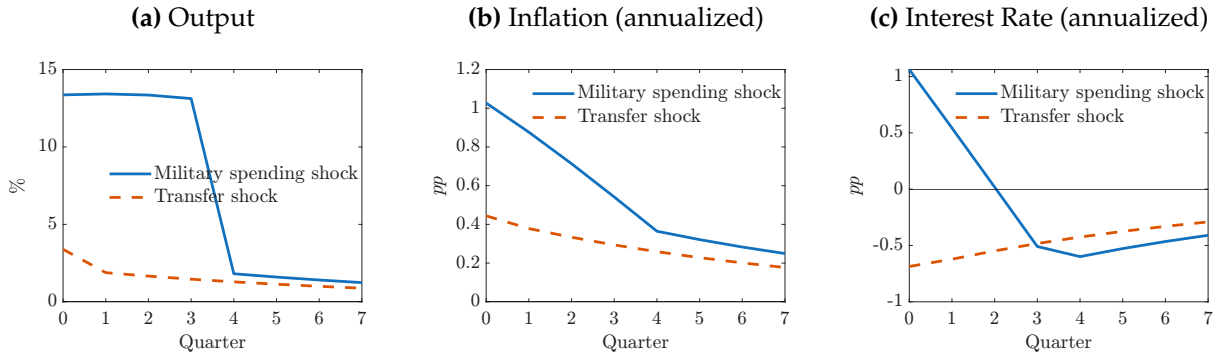
6.5 A Transfer vs. Military Spending Shock

The calibrated parameters target the beliefs elicited in the military spending shock scenario. The survey also elicited expectations following a hypothetical cash transfer shock. This section compares the untargeted debt-financing shares from the transfer shock scenario with their model counterparts under the benchmark calibration.

Figure 11 presents the survey financing shares and their model counterparts following a transfer shock. Interestingly, the model and survey results are not too different, even though these moments were not targeted in the calibration. Unlike for the military spending shock, the model understates the contribution of inflation and overstates the interest rate and tax rate share. At the same time, the tax base, government spending, money printing, assets sale, and bubble shares are quite close in the survey and the model.

To shed light on some of these differences, Figure 12 plots the impulse responses of output, inflation, and the nominal interest rate following the military spending and transfer shocks. Two observations stand out. First, while the shocks are active, the military spending shock is more expansionary and therefore more inflationary in the short run. As a result, the model-implied inflation share is higher following the military spending shock

Figure 12: Model Impulse Responses: Military Spending vs. Transfer Shock



Notes: The figure shows the impulse responses of output, inflation, and the interest rate under the benchmark calibration. The military spending and transfer shocks are announced in period 0 and follow the paths $\{\epsilon_t^G\}_{t=0}^{\infty} = \{0.1, 0.1, 0.1, 0.1, 0, 0, \ldots\}$ and $\{\epsilon_t^{Tr}\}_{t=0}^{\infty} = \{-0.4, 0, 0, \ldots\}$. Blue solid lines: military spending shock; orange dashed lines: transfer shock.

(14 percent) than following the transfer shock (7 percent). The central bank responds to the higher inflation by raising the interest rate sharply during the first few quarters after the military spending shock. This response explains why the model-implied interest rate share is lower following the military spending shock (4 percent) than following the transfer shock (10 percent). Recall that, all else equal, a higher interest rate makes it more difficult for the government to finance its debt.

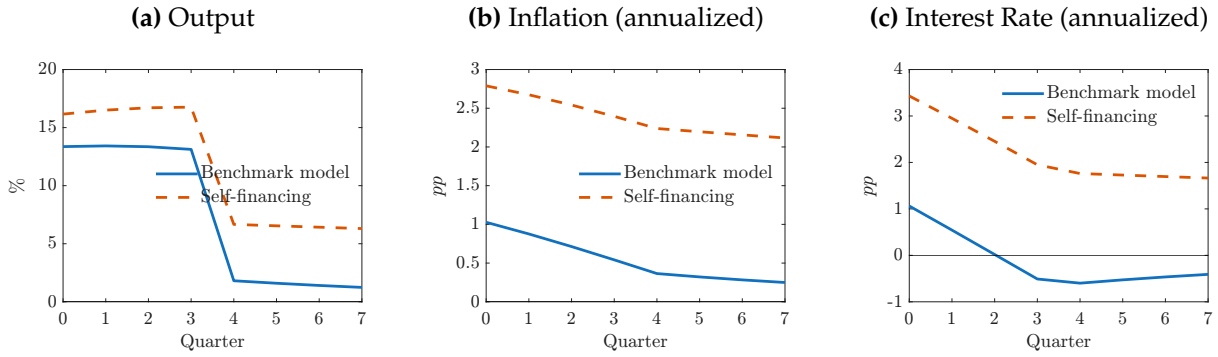
Second, after initially widening, the gap between the responses to the two shocks narrows after period 3, the final period in which the military spending shock is active. This narrowing arises because, by period 4, the two shocks change government debt by comparable magnitudes. From period 4 onward, after the shocks have dissipated, the economy is driven by the dynamics of government debt, which are comparable across the two cases.

6.6 Self-Financing of Fiscal Shocks

This section investigates whether a fiscal shock can be self-financing in the sense of not requiring surplus adjustments (Angeletos, Lian and Wolf, 2024a,b). In our model, the absence of surplus adjustments leaves inflation, money supply, interest rate changes, and "bubble" components to back government debt. To assess this possibility, we set all the endogenous changes in the government revenues and spending to zero and, in addition, the possibility to sell government goods $\widetilde{f}_t$ is switched off as well because it ultimately provides resources to the government. We keep all the other parameters of the model as in the benchmark calibration.

Figure 13 presents the impulse responses of output, inflation, and the nominal interest

Figure 13: Model Impulse Responses: Benchmark vs. Self-financing



Notes: The figure presents the impulse responses of output, inflation, and the interest rate to a military spending shock $\{\epsilon_t^g\}_{t=0}^{\infty} = \{0.1, 0.1, 0.1, 0.1, 0, 0, \ldots\}$ announced in period 0. Blue solid lines: benchmark calibration; orange dashed lines: the self-financing counterfactual of Section 6.6.

rate.[39] The plots show that, absent the fiscal adjustment that would otherwise begin after period 3, the military spending shock stimulates the economy by more, generates more inflation, and prompts the central bank to raise the interest rate by more. In the absence of surplus adjustments, the responses are more persistent in the sense of remaining further from steady state at longer horizons. This happens because the government debt does not have the support of surpluses on the way to the steady state.

Because of the altered dynamics, the decomposition of debt financing implied by equations (14) and (15) looks significantly different from what we elicited in our survey. The considerable nominal interest rate hike makes the interest rate share negative (minus 72 percent), even in the presence of government debt in the Taylor rule. The bigger inflation spike raises the inflation share to 100 percent, while money printing is negligible (1 percent). Finally, the bubble share rises to 71 percent: absent surplus adjustments, government debt takes longer to return to the steady state, which raises the bubble share considerably.

In sum, this section is an example of how the financing expectations we measure can be put to work in a standard macroeconomic framework. This exercise shows that they matter quantitatively for the transmission of fiscal shocks.

[39] In standard New Keynesian models with Ricardian households, simultaneous active monetary and fiscal policies result in the absence of bounded rational-expectations equilibria (Leeper, 1991). With non-Ricardian features, such as the overlapping generations of households or debt in the utility function, this sharp result becomes muted. Even with both monetary and fiscal policies active, the model can feature a unique bounded rational-expectations equilibrium (Dupraz and Rogantini Picco, 2025; Kaplan, 2025; Rachel and Ravn, 2025). Our configuration of parameters results in a unique bounded rational expectations equilibrium.

7 Conclusion

This paper provides direct evidence on household beliefs about the government's intertemporal budget constraint. The key finding is that households expect less than half of U.S. debt to be backed by future primary surpluses. The single largest share, 23 percent, is expected to be rolled over forever without collecting primary surpluses. Experts agree. A conventional New Keynesian model with debt in the utility function reproduces households' financing expectations following fiscal shocks and implies that these beliefs strengthen the transmission of fiscal policy.

Our evidence is a snapshot of beliefs, not behavior. Linking perceived financing shares to spending and portfolio decisions, modeling how these beliefs update, and incorporating the belief heterogeneity we document are natural next steps. More broadly, the perceived composition of debt financing has so far been an assumption in models with fiscal policy. It can instead be measured.

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Supplemental Appendix

A Additional Tables and Figures

Table A.1: Summary Statistics

	ACS (2024)	Main Survey	Supplementary Survey
Gender			
Female	51.4%	52.7%	57%
Age			
18 - 34	24.8%	32.3%	28.8%
35 - 64	46.1%	54.6%	62.4%
65+	29.1%	13.1%	10.8%
Before-tax Income			
Median, USD	73,000	75,000	75,000
Education			
College or more	34.5%	35.6%	34.7%
Region			
Northeast	17.7%	17.3%	17.1%
Midwest	20.7%	19.1%	20.2%
South	38.0%	40.8%	39.1%
West	23.6%	22.8%	23.7%
Observations	2,765,524	2,783	481

Notes: The table compares the characteristics of the U.S. population aged 18 and older in the 2024 American Community Survey (column "ACS (2024)") with those of our main household survey (column "Main Survey") and supplementary household survey (column "Supplementary Survey"). ACS statistics are computed at the individual level. Household before-tax income is the sum of the gross incomes of all household members, computed for non-institutionalized households at the household level (1,514,265 ACS households).

Table A.2: Household Narratives

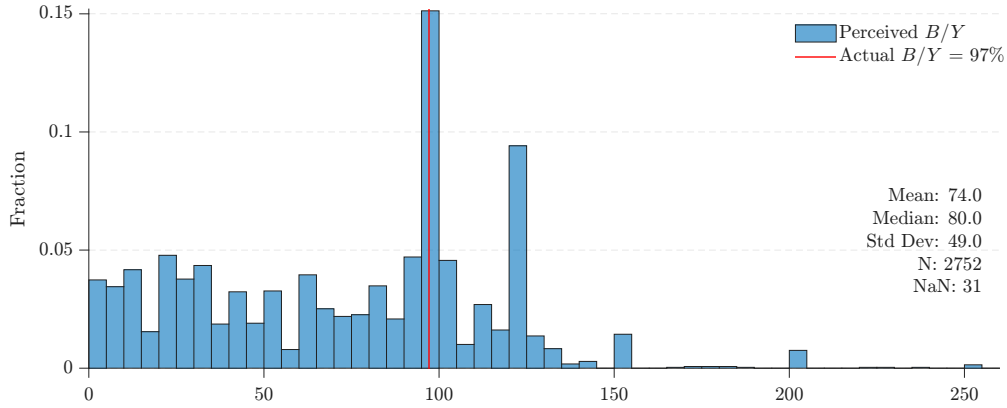
Category	Definition	Example answer
Extrapolation	Respondents say that the government will continue borrowing because this is what it has done in the past. The reasoning is based on the continuation of historical patterns rather than on a specific economic mechanism.	"They will keep doing this because that's all they ever do. I can look at the last 50 years as an example of how they handle debt, and that is what they do. They never cut spending."
Institutional Feature	Respondents mention that debt rollover is a normal or structural feature of government debt financing. The government can continue borrowing, issuing new debt, or refinancing existing obligations rather than paying everything back immediately.	"My understanding is that it is normal for the government to borrow money in order to afford services. They can't stop borrowing or else they would not have any funds. It is normal for them to accumulate debt because it's more beneficial to their borrowers to pay back with interest in the future."

Continued on next page

Category	Definition	Example answers
Safe Asset / Reserve Currency	Respondents mention that U.S. government debt is sustainable because Treasury securities are safe assets, because there is strong demand for them, or because the U.S. dollar has a special international role as a reserve currency.	"I think the U.S. will continue borrowing because large deficits have persisted for many years without major political agreement on taxes or spending cuts. Investors still view U.S. debt as relatively safe and dependable."
Political Constraints on Fiscal Adjustments	Respondents mention political limits, gridlock, elections, public pressure, or institutional constraints that prevent the government from raising enough revenue, cutting spending, or changing fiscal policy substantially.	"From what I can tell, politicians never learn. They are concerned about elected. Therefore, they will continue to borrow even at our expense."
Government Irresponsibility	Respondents mention irresponsible spending, poor management, lack of discipline, corruption, waste, or the belief that the government will continue borrowing because it is unwilling or unable to act responsibly.	"I selected that option because I have no faith in the U.S. government at this point. So if things keep going like they have been in the last year, then I assume the government will do nothing to correct this problem and just run itself into the ground."
Money	Respondents mention that the United States can create money, print dollars, rely on the Federal Reserve, or use inflation to reduce the real burden of debt.	"I chose that option because I think governments can continue borrowing for a very long time without fully paying off all their debt. Since the United States controls its own currency, I feel like it can keep printing more money and continue operating even with large amounts of debt."
Tax Base	Respondents mention that debt can be sustained because the economy will grow, future income will be higher, tax revenues will increase, or growth will make the debt burden easier to manage.	"Spending more on the people will end up with people doing more work and creating more revenue, thus decreasing the debt. However, this could backfire and result in further increasing the debt if it doesn't pay off."
Other Narratives	Respondents provide a substantive explanation that does not fit the main categories. These include rare but interpretable narratives, such as the idea that the debt is too large to repay, that continued borrowing is the only feasible option, or that no actor can enforce repayment against the U.S. government.	"Who can enforce the debt collection? Might is right. The number is all a facade if explative hits the fan it means nothing. Perks of being the worlds economic engine and foremost military superpower, for now at least."
Unclear / No Explanation	Respondents give vague, uncertain, contradictory, or low-information answers. They may say they do not know, provide no interpretable reason, or give an answer that does not clearly fit any substantive category.	"I am not confident of my answers to these questions. This option just seemed like something a government would do."

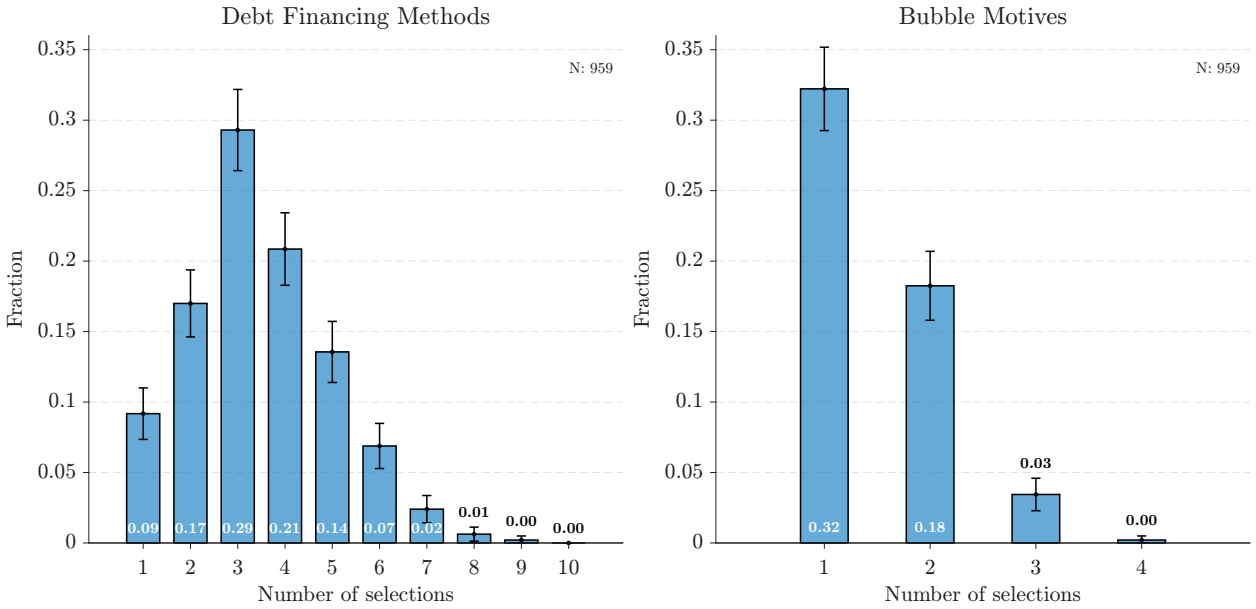
Notes: The table presents the codebook used to classify respondents' open-ended explanations for selecting the bubble option in the supplementary household survey, described in Section 4.4 (256 responses). Each response is assigned to one or more categories using an LLM-assisted annotation procedure validated against human coding (Haaland, Roth, Stantcheva and Wohlfart, 2025), with the codebook structured following MacQueen, McLellan, Kay and Milstein (1998). The table reports each category's label, definition, and one example answer. Example answers are quoted verbatim, preserving respondents' original spelling and grammar.

Figure A.1: Perceived Debt-to-GDP Ratio



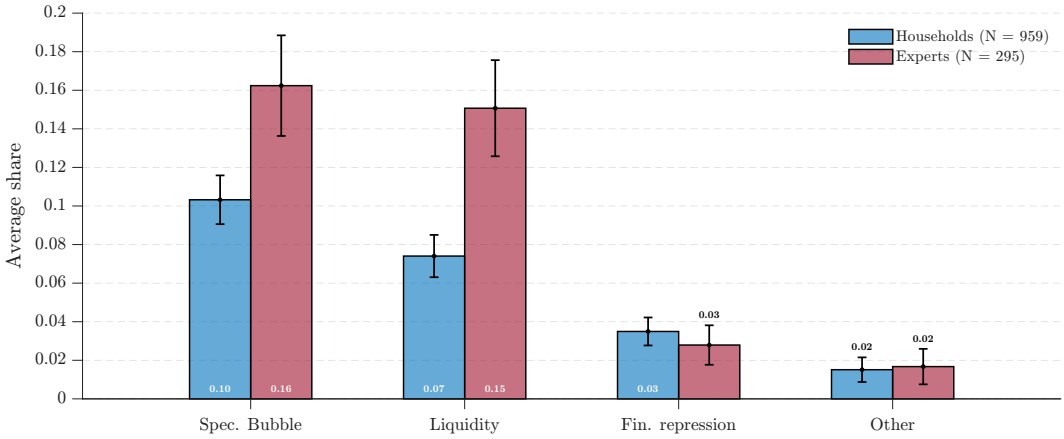
Notes: The histogram shows the distribution of respondents' perceptions of the U.S. debt-to-GDP ratio at the end of 2024 (N = 2752). Participants entered a numerical percentage. Responses above 500% were excluded. Values are grouped into 5-percentage-point bins.

Figure A.2: Current Debt Financing Choice Dispersion



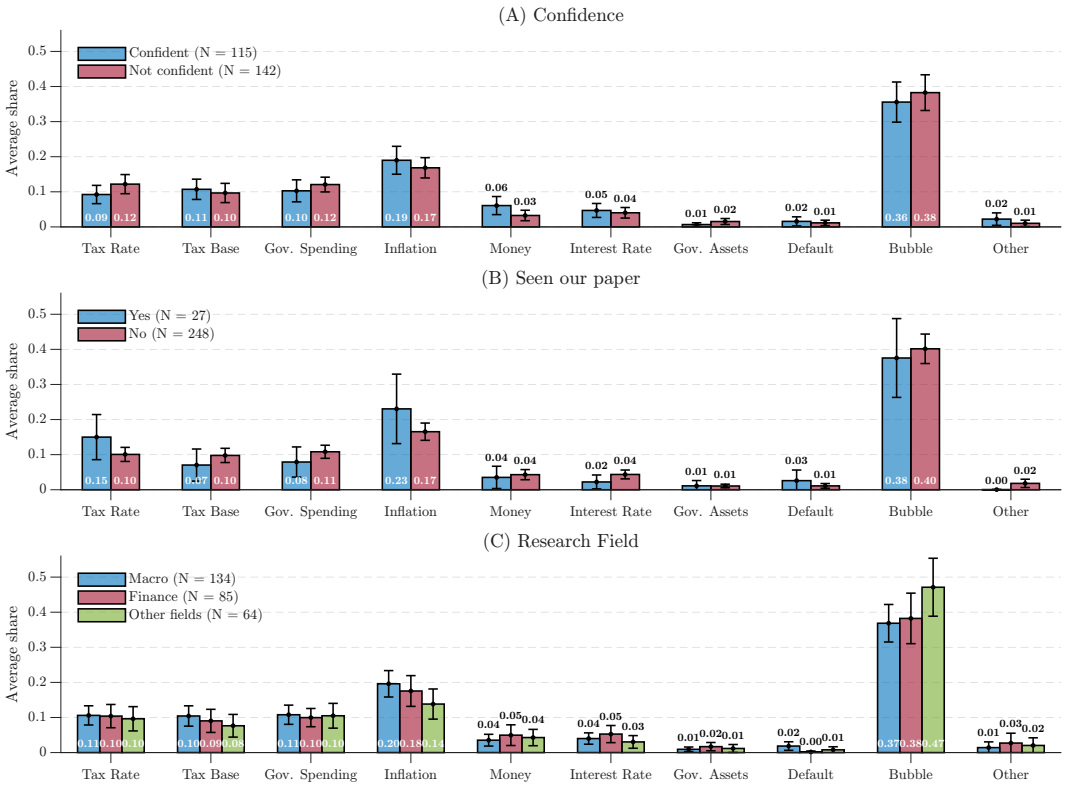
Notes: The left panel shows the distribution of the number of options respondents selected when asked how the government will finance its debt ($N = 959$). The right panel shows the same distribution for the follow-up question on bubble motives, among the 519 respondents who selected the bubble option. Whiskers denote 95% confidence intervals.

Figure A.3: Bubble Motives: Households vs Experts



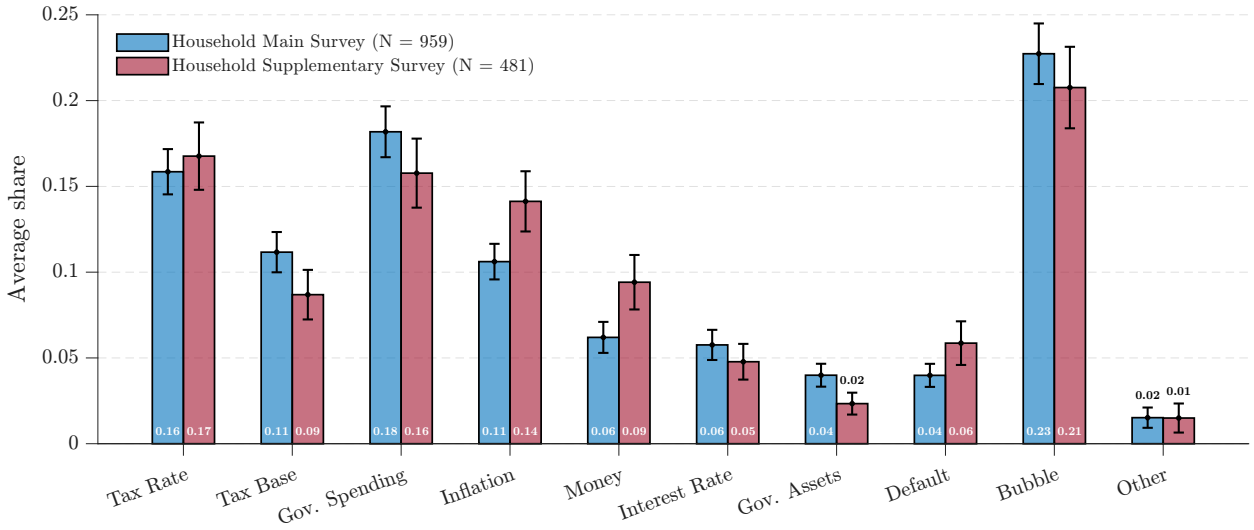
Notes: The figure displays the average share assigned to each bubble motive by households (blue bars, N = 959) and experts (red bars, N = 295), with whiskers denoting 95% confidence intervals. Shares are set to zero for respondents who did not select the bubble option. For 61 expert respondents, reported shares are proportionally rescaled so that bubble-motive shares sum to the respondent's reported bubble share in the debt-financing question.

Figure A.4: Debt Financing Expectations Experts' Characteristics



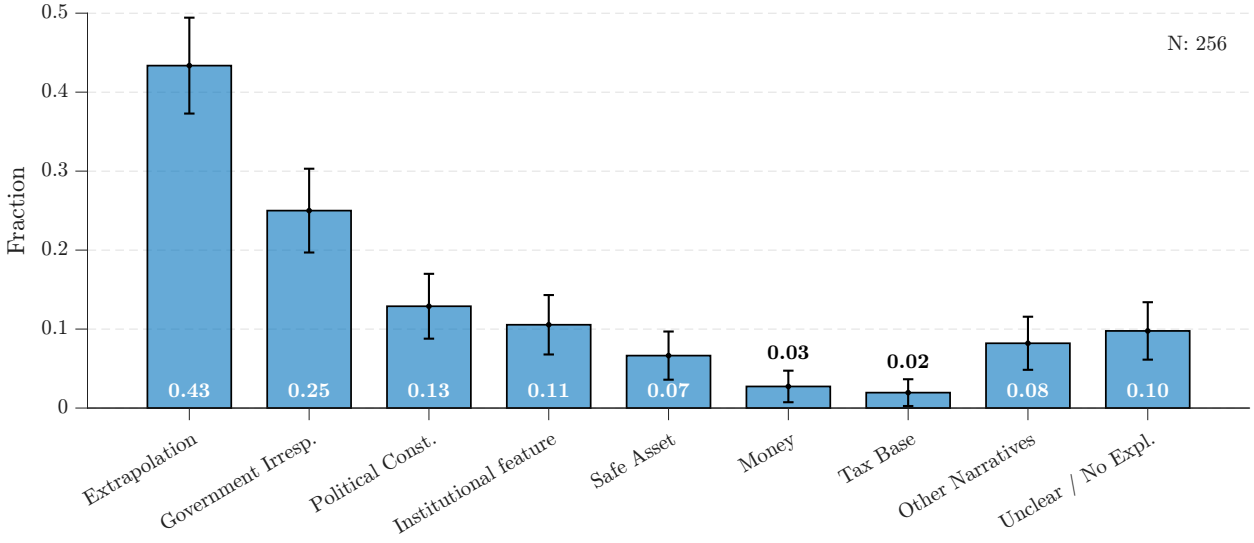
Notes: The figure shows average expected financing shares among expert respondents, split by self-reported confidence (Panel A), by whether the respondent had seen our paper before taking the survey (Panel B), and by research field (Panel C). Experts are classified as confident if they report being moderately, very, or extremely confident in their numerical answers. Each panel is restricted to respondents who answered the corresponding classifying question, so sample sizes differ across panels. Whiskers represent 95% confidence intervals.

Figure A.5: Debt Financing Expectations: Main vs. Supplementary Household Surveys



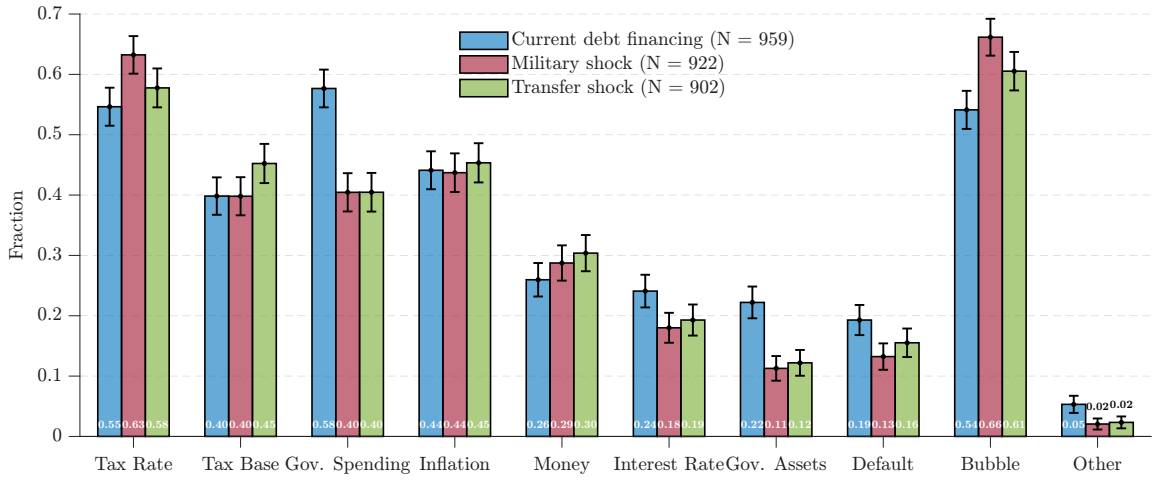
Notes: The figure displays the average share of debt allocated to each financing method in the main survey, conducted in May 2025 (blue bars, N = 959), and in the supplementary household survey, conducted in April–May 2026 (red bars, N = 481). In the supplementary survey, the bubble option was reworded more briefly as "keep borrowing without ever collecting revenues above spending on goods, services, and social programs." Whiskers denote 95% confidence intervals.

Figure A.6: Bubble Motives: Households' Narratives



Notes: The figure reports the share of open-ended responses assigned to each narrative category (N = 256). Categories are identified using an LLM-based classification procedure; they are defined in Table A.2 and described in Section 4.4. Whiskers denote 95% confidence intervals. The narrative shares sum to more than 100 percent because a response can be assigned to more than one narrative.

Figure A.7: Newly Issued Debt Financing: Military vs. Transfer Shock



Notes: The figure displays the fraction of respondents selecting each financing method, with whiskers denoting 95% confidence intervals, for the baseline debt-financing question (blue bars, N = 959), the military spending shock (red bars, N = 922), and the cash transfer shock (green bars, N = 902). Respondents could select multiple methods, so the fractions sum to more than one across methods.

B Additional Heterogeneity Analysis

Section 5 compares debt-financing beliefs across selected individual characteristics one at a time. Because these characteristics are mutually correlated, this appendix examines their association with beliefs jointly, using the full set of characteristics collected in the survey. Appendix Sections (D.6) and (D.7) show all the individual characteristics that we collect. In addition, we created one regressor "Debt perception accuracy" based on the answer to the question about the current level of debt. Those respondents whose answers were within 20 percentage points of the true value of the debt were assigned a dummy of one.

We first describe the two specifications and then report the estimation results in Tables B.3 and B.4. The sample comprises the 958 Group 1 respondents with complete covariate information.

We start by estimating a linear probability model of the form

$$\mathbb{I}_{m,i} = \alpha_m^{ex} + \beta_m^{ex} X_i + \epsilon_{m,i}^{ex}, \tag{B.1}$$

where $\mathbb{I}_{m,i}$ is an indicator equal to one if respondent i selected debt-financing method m, described in Section 3.3, and X_i is a vector of individual characteristics measured in the final part of the survey. We estimate equation (B.1) as a system of seemingly unrelated regressions (SUR, Zellner, 1962), one equation per financing method, allowing the errors to be correlated across methods within a respondent. Technically, we stack the equations and cluster standard errors by respondent. Because every equation contains the same regressors, the point estimates coincide with equation-by-equation OLS and with SUR. The joint estimation matters only for inference.

Next, we relate expectations about the share of debt covered by each method to respondent characteristics, estimating

$$w_{m,i} = \alpha_m^{in} + \beta_m^{in} X_i + \epsilon_{m,i}^{in}, \tag{B.2}$$

where $w_{m,i}$ is the share of outstanding government debt that respondent i expects to be covered by method m. We estimate equation (B.2) in the same way as equation (B.1), stacking the equations across methods and clustering standard errors by respondent. Because the shares sum to one within each respondent, one equation in the system is redundant; we therefore drop the "Other" category. The estimates do not depend on which category is dropped.

As a robustness check, we re-estimate specifications (B.1) and (B.2) controlling for the randomized position in which each debt-financing option was displayed (results not reported). For each option, we include indicators for display positions 2–9, with the first position as the omitted category. The "Other" option is excluded from these controls because it was always displayed last. The results are quantitatively similar.

Table B.3 reports the estimates of equation (B.1), relating the selection of each financing method to respondent characteristics. Several patterns stand out. Respondents without a college degree are less likely to select the surplus-based options (tax-base growth and spending cuts) and more likely to select the bubble option. Republicans, by contrast, are more likely than Democrats to select the surplus-based options and less likely to select the bubble and inflation options. Parents are more likely to select tax-rate increases. Women are less likely than men to select money creation and the bubble option and more likely to select default. Finally, respondents aged 65 and older are less likely to select inflation but more likely to select money creation and government asset sales.

Table B.4 reports the estimates of equation (B.2), relating the share of debt allocated to each method to the same characteristics. The results are qualitatively similar to those in Table B.3; the main patterns are discussed in Section 5.

Finally, Figure (B.8) extends panel E of Figure (8) in the main text by adding the debt financing shares conditional on holding any financial investments. As the figure indicates, even this characteristic does not alter the quantitative picture much.

Table B.3: Do individual characteristics predict debt financing method expectations?

	Tax rate	Tax base	Gov. spending	Inflation	Money	Interest rate	Gov. assets	Default	Bubble	Other
Age: 35–64	-0.036	-0.001	0.008	-0.060	0.039	-0.040	0.119***	0.040	0.030	0.010
	(0.038)	(0.037)	(0.038)	(0.039)	(0.033)	(0.034)	(0.030)	(0.031)	(0.038)	(0.016)
Age 65+	-0.038	0.022	-0.007	-0.155***	0.161***	-0.047	0.148***	0.011	0.010	0.013
	(0.057)	(0.054)	(0.056)	(0.056)	(0.052)	(0.050)	(0.047)	(0.044)	(0.057)	(0.026)
Midwest	0.016	0.013	-0.050	0.040	0.043	-0.032	0.035	0.102**	0.094*	0.011
	(0.053)	(0.050)	(0.052)	(0.053)	(0.045)	(0.045)	(0.042)	(0.042)	(0.053)	(0.025)
South	0.000	0.015	0.040	-0.021	0.026	-0.002	0.036	0.041	0.037	-0.006
	(0.047)	(0.044)	(0.046)	(0.047)	(0.039)	(0.041)	(0.037)	(0.034)	(0.046)	(0.021)
West	0.081	0.014	-0.027	0.033	0.073	0.018	0.091**	0.041	0.112**	0.001
	(0.052)	(0.050)	(0.053)	(0.053)	(0.046)	(0.046)	(0.043)	(0.039)	(0.052)	(0.024)
Unemployed	0.065	-0.075*	0.021	0.009	-0.015	-0.013	0.033	-0.004	0.051	0.030
	(0.041)	(0.038)	(0.042)	(0.042)	(0.037)	(0.035)	(0.035)	(0.034)	(0.042)	(0.021)
Gov. employee	0.053	-0.077	-0.010	-0.066	0.099**	0.119***	0.022	0.086***	0.058	0.028*
	(0.053)	(0.051)	(0.051)	(0.053)	(0.039)	(0.041)	(0.042)	(0.033)	(0.052)	(0.016)
Republican	-0.108***	0.143***	0.101***	-0.070*	-0.011	0.037	-0.037	-0.038	-0.121***	0.026
	(0.039)	(0.038)	(0.039)	(0.039)	(0.032)	(0.035)	(0.033)	(0.030)	(0.039)	(0.017)
Independent	-0.007	-0.041	0.021	-0.026	0.129***	-0.039	-0.044	0.021	-0.008	0.020
	(0.040)	(0.038)	(0.040)	(0.040)	(0.036)	(0.034)	(0.034)	(0.033)	(0.039)	(0.018)
Something else	-0.205**	-0.167**	-0.014	-0.145	0.128	0.066	-0.113	0.055	-0.069	0.030
	(0.094)	(0.073)	(0.103)	(0.098)	(0.090)	(0.089)	(0.071)	(0.091)	(0.100)	(0.050)
Follow econ news	-0.025	0.030	0.086**	-0.025	0.010	-0.010	0.018	-0.044	-0.035	0.043***
	(0.036)	(0.034)	(0.037)	(0.036)	(0.031)	(0.032)	(0.032)	(0.030)	(0.036)	(0.015)
No College	-0.042	-0.119***	-0.088**	-0.005	0.059*	-0.014	0.023	-0.011	0.102***	0.019
	(0.039)	(0.037)	(0.039)	(0.039)	(0.033)	(0.034)	(0.032)	(0.030)	(0.038)	(0.018)
No econ educated	-0.008	-0.068*	-0.001	-0.003	0.018	-0.055	-0.048	-0.035	0.023	0.009
	(0.044)	(0.040)	(0.044)	(0.043)	(0.038)	(0.036)	(0.035)	(0.034)	(0.044)	(0.020)
Female	-0.016	-0.051	0.021	0.004	-0.135***	-0.023	0.015	0.065**	-0.065**	-0.040***
	(0.033)	(0.031)	(0.033)	(0.033)	(0.029)	(0.029)	(0.027)	(0.026)	(0.033)	(0.015)
Married	-0.047	-0.014	-0.001	-0.031	0.013	-0.061*	-0.014	0.027	-0.040	-0.027
	(0.038)	(0.036)	(0.038)	(0.038)	(0.033)	(0.033)	(0.032)	(0.031)	(0.039)	(0.018)
Children	0.133***	0.050	-0.016	-0.032	-0.073**	0.013	-0.046	-0.072**	-0.054	0.004
	(0.040)	(0.039)	(0.040)	(0.041)	(0.036)	(0.034)	(0.034)	(0.033)	(0.040)	(0.017)
Income ($< \$80k$)	0.030	0.057*	0.022	0.014	-0.044	-0.017	0.022	0.030	-0.094***	-0.009
	(0.035)	(0.034)	(0.036)	(0.036)	(0.030)	(0.031)	(0.030)	(0.028)	(0.036)	(0.018)
Liq. constrained	0.016	-0.011	-0.057	0.036	0.027	-0.010	-0.055	0.066	0.019	-0.044*
	(0.062)	(0.060)	(0.061)	(0.061)	(0.058)	(0.052)	(0.049)	(0.056)	(0.060)	(0.024)
Non-bond holders	-0.023	-0.019	0.025	-0.051	-0.064*	-0.062	-0.056	-0.010	-0.068	0.012
	(0.045)	(0.043)	(0.044)	(0.045)	(0.038)	(0.042)	(0.038)	(0.034)	(0.044)	(0.018)
Debt perception accuracy	0.056	0.085***	0.058*	0.108***	-0.014	0.010	0.001	-0.035	0.023	-0.019
	(0.034)	(0.033)	(0.034)	(0.035)	(0.030)	(0.030)	(0.029)	(0.026)	(0.034)	(0.015)
Constant	0.515***	0.468***	0.485***	0.632***	0.197***	0.291***	0.142**	0.088	0.587***	-0.007
	(0.090)	(0.087)	(0.089)	(0.092)	(0.072)	(0.076)	(0.069)	(0.065)	(0.089)	(0.036)
Observations	958	958	958	958	958	958	958	958	958	958
R^2	0.0344	0.1031	0.0386	0.0368	0.0808	0.0255	0.0353	0.0466	0.0554	0.0347

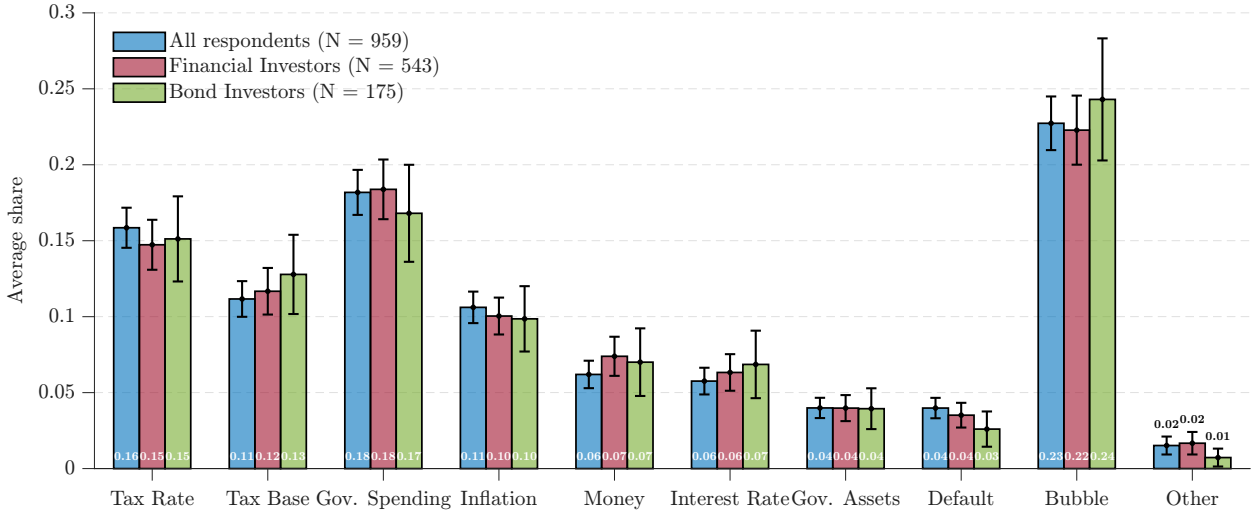
Notes: The table presents the results of the estimation of regression (B.1). Each column represents the estimates of the coefficients for a particular method. The errors are allowed to be correlated across methods, making the specification a seemingly unrelated regression (SUR). Each cell reports the coefficient and standard error (in parentheses). Significance levels: $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. A LASSO selection exercise retained all demographic controls when taking the union of selected variables across methods. The sample comprises the 958 Group 1 respondents with complete covariate information.

Table B.4: Do individual characteristics predict the *share allocated* to each debt financing method?

	Tax rate	Tax base	Gov spending	Inflation	Money	Interest rate	Gov. assets	Default	Bubble
Age: 35–64	-2.439	-0.253	0.069	-1.395	0.690	-1.575	1.648**	0.683	1.482
	(1.608)	(1.379)	(1.796)	(1.258)	(1.088)	(1.074)	(0.814)	(0.812)	(2.117)
Age 65+	-3.197	1.479	-1.142	-4.704**	3.914**	-1.671	1.868	0.972	2.756
	(2.399)	(2.058)	(2.680)	(1.877)	(1.624)	(1.603)	(1.214)	(1.212)	(3.159)
Midwest	-0.931	-0.200	-4.893**	0.314	-0.413	0.221	-1.018	2.606**	3.850
	(2.219)	(1.904)	(2.479)	(1.737)	(1.502)	(1.483)	(1.123)	(1.121)	(2.922)
South	-0.693	-0.720	1.751	-1.572	0.972	0.964	-0.674	-0.110	0.096
	(1.962)	(1.684)	(2.192)	(1.536)	(1.328)	(1.311)	(0.993)	(0.991)	(2.584)
West	0.011	-1.103	-0.758	-0.789	0.443	0.318	-0.267	-0.107	3.532
	(2.201)	(1.888)	(2.458)	(1.722)	(1.490)	(1.470)	(1.114)	(1.112)	(2.897)
Unemployed	2.943*	-4.005***	-2.921	0.681	-1.042	-0.245	0.282	-0.113	2.936
	(1.751)	(1.502)	(1.956)	(1.370)	(1.185)	(1.170)	(0.886)	(0.884)	(2.305)
Gov. employee	1.454	-2.445	-0.904	-4.274**	1.917	3.001**	-1.253	1.573	0.164
	(2.207)	(1.893)	(2.465)	(1.727)	(1.494)	(1.474)	(1.117)	(1.115)	(2.905)
Republican	-2.610	6.890***	5.356***	-2.069	0.032	2.532**	-0.579	-0.691	-9.626***
	(1.652)	(1.418)	(1.846)	(1.293)	(1.119)	(1.104)	(0.836)	(0.835)	(2.176)
Independent	1.190	-1.558	2.102	-1.189	2.761**	-0.029	-1.781**	0.279	-3.303
	(1.688)	(1.448)	(1.886)	(1.321)	(1.143)	(1.128)	(0.854)	(0.853)	(2.222)
Something else	-6.232	0.026	6.633	-5.845*	3.566	5.438**	-2.984	1.322	-1.585
	(4.086)	(3.506)	(4.565)	(3.197)	(2.766)	(2.730)	(2.068)	(2.064)	(5.380)
Follow econ news	-0.483	0.688	2.060	-0.859	1.189	0.105	0.093	-0.519	-3.949*
	(1.539)	(1.320)	(1.719)	(1.204)	(1.042)	(1.028)	(0.779)	(0.777)	(2.026)
No College	0.869	-4.574***	-1.214	0.039	1.273	-0.888	0.539	-0.587	3.697*
	(1.633)	(1.401)	(1.824)	(1.278)	(1.105)	(1.091)	(0.827)	(0.825)	(2.150)
No econ educated	-2.742	-2.258	0.874	2.541*	1.845	-1.123	-0.166	-0.516	1.446
	(1.832)	(1.572)	(2.046)	(1.433)	(1.240)	(1.224)	(0.927)	(0.925)	(2.412)
Female	0.660	-0.980	2.867*	1.458	-3.755***	0.115	1.579**	1.738**	-3.724**
	(1.386)	(1.189)	(1.548)	(1.084)	(0.938)	(0.926)	(0.701)	(0.700)	(1.824)
Married	-0.748	1.139	-0.103	1.397	0.616	-1.119	0.202	1.274	-2.123
	(1.607)	(1.378)	(1.795)	(1.257)	(1.088)	(1.073)	(0.813)	(0.811)	(2.115)
Children	5.321***	0.347	1.490	-1.949	-1.707	0.815	0.272	-1.843**	-2.392
	(1.698)	(1.457)	(1.897)	(1.329)	(1.149)	(1.134)	(0.859)	(0.858)	(2.235)
Income ($< \$80k$)	0.793	2.971**	0.033	0.797	-1.571	-0.030	0.707	0.514	-4.006**
	(1.498)	(1.285)	(1.674)	(1.172)	(1.014)	(1.001)	(0.758)	(0.757)	(1.972)
Liq. constrained	-1.768	-0.715	0.934	-0.545	2.403	-0.927	-1.410	3.666***	-0.327
	(2.594)	(2.226)	(2.898)	(2.030)	(1.756)	(1.733)	(1.313)	(1.310)	(3.415)
Non-bond holders	0.596	1.540	3.269	0.834	-1.516	-1.124	-0.067	0.987	-5.077**
	(1.884)	(1.616)	(2.104)	(1.474)	(1.275)	(1.259)	(0.953)	(0.951)	(2.480)
Debt perception accuracy	0.508	1.586	1.586	1.826	-1.343	-0.378	-0.425	-0.551	-2.209
	(1.446)	(1.241)	(1.615)	(1.131)	(0.979)	(0.966)	(0.732)	(0.730)	(1.904)
Constant	13.009***	12.149***	11.195***	15.654***	5.582**	4.719*	3.608*	0.807	35.127***
	(3.796)	(3.257)	(4.240)	(2.970)	(2.570)	(2.536)	(1.921)	(1.917)	(4.997)
Observations	958	958	958	958	958	958	958	958	958
R^2	0.027	0.095	0.038	0.036	0.050	0.021	0.024	0.044	0.058

Notes: The table presents the results of the estimation of regression (B.2). Each column represents the estimates of the coefficients for a particular method. The errors are allowed to be correlated across methods, making the specification a seemingly unrelated regression (SUR). Each cell reports the coefficient and standard error (in parentheses). Significance levels: $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. A LASSO selection exercise retained all demographic controls when taking the union of selected variables across methods. The sample comprises the 958 Group 1 respondents with complete covariate information. The "Other" category is omitted because shares sum to one within each respondent, making one equation in the system redundant.

Figure B.8: Current Debt Financing Methods by Respondent Investment Types



Notes: The figure shows the average share of debt allocated to each financing method for the full Group 1 sample (blue bars, N = 959), for respondents who hold financial assets (red bars, N = 543), and for those who hold bonds (green bars, N = 175). Whiskers denote 95% confidence intervals. The three groups are nested. Labels correspond to the options in the debt-financing question, as presented in Section 3.3.

C Model Details

The model is a standard New Keynesian environment with the following distinct feature: households derive utility from holding real government bonds and real money balances. Production takes place in a continuum of monopolistically competitive firms, owned in equal shares by all households, which hire labor in a competitive labor market and set prices a la Calvo.

C.1 Households

The economy is populated by a continuum of identical households indexed by $i \in [0,1]$. Each household consumes a Dixit–Stiglitz bundle of all goods in the economy,

$$c_t^i = \left[\int_0^1 c_t^i(k)^{\frac{\varepsilon-1}{\varepsilon}} dk \right]^{\frac{\varepsilon}{\varepsilon-1}},$$

with the corresponding aggregate price index

$$P_t = \left[\int_0^1 \left(P_t^j \right)^{1-\varepsilon} dj \right]^{\frac{1}{1-\varepsilon}},$$

where P_t^j denotes the price charged by firm j. The household supplies h_t^i hours of labor at the nominal wage W_t, which is common across all households. It also owns an equal share of every firm and therefore receives the aggregate real dividend $d_t \equiv \int_0^1 d_t^j dj$, where d_t^j denotes the real profit of firm j defined below. These shares are non-tradable and only constitute an income stream for the households.

Households trade two assets. The first is a one-period government bond B_t^i purchased at price Q_t in period t, which pays one unit of money at maturity in $t+1$. The associated nominal interest rate is $i_t = 1/Q_t - 1$. The second is central bank money: the household holds M_t^i units of money at a nominal price of one that pays one unit of money in the following period.

Household i chooses sequences $\left\{ \left[c_t^i(k)\right]_{k=0}^1, c_t^k, h_t^i, B_t^i, M_t^i \right\}_{t=0}^{\infty}$ to maximize expected discounted utility

$$\mathbb{E}_0 \sum_{t=0}^{\infty} \beta^t \left[\frac{\left(c_t^i\right)^{1-\sigma^{-1}} - 1}{1-\sigma^{-1}} + \chi_b \frac{\left(B_t^i/P_t\right)^{1-v_b^{-1}} - 1}{1-v_b^{-1}} + \chi_m \frac{\left(M_t^i/P_t\right)^{1-v_m^{-1}} - 1}{1-v_m^{-1}} - \iota \frac{\left(h_t^i\right)^{1+\varphi^{-1}}}{1+\varphi^{-1}} \right],$$

subject to the period budget constraint

$$P_t c_t^i + M_t^i + Q_t B_t^i = W_t h_t^i + P_t d_t - P_t \tau_t + B_{t-1}^i + M_{t-1}^i,$$

where $\mathbb{E}_t[\cdot]$ denotes the expectations operator. The household is also subject to a no-Ponzi-game condition. It takes as given the initial conditions B_{-1}^i and M_{-1}^i, together with the sequences of aggregate variables $\{P_t, \{P_t(k)\}_{k\in[0,1]}, W_t, d_t, Q_t\}_{t=0}^{\infty}$. Because all households face the same prices, the same wage, and the same dividend and tax flows, they choose identical allocations; we therefore drop the superscript i below where convenient.

Optimal choices. The first-order conditions of the household's problem yield the following Euler equations. For government bonds,

$$Q_t = \chi_b \frac{\left(c_t^i\right)^{\frac{1}{\sigma}}}{\left(b_t^i\right)^{\frac{1}{v_b}}} + \mathbb{E}_t \left[\beta \frac{P_t}{P_{t+1}} \left(\frac{c_t^i}{c_{t+1}^i} \right)^{\frac{1}{\sigma}} \right],$$

where $b_t^i \equiv B_t^i/P_t$ denotes real bond holdings.

And for money, we have

$$1 = \chi_m \frac{\left(c_t^i\right)^{\frac{1}{\sigma}}}{\left(m_t^i\right)^{\frac{1}{v_m}}} + \mathbb{E}_t \left[\beta \frac{P_t}{P_{t+1}} \left(\frac{c_t^i}{c_{t+1}^i} \right)^{\frac{1}{\sigma}} \right],$$

where $m_t^i \equiv M_t^i/P_t$ denotes real money balances. The non-pecuniary terms involving χ_b and χ_m capture the marginal utility of holding bonds and money, respectively. Because government bonds provide these liquidity services, their price exceeds the household's intertemporal valuation of their pecuniary payoff. The first-order condition for hours worked equates the marginal disutility of labor to the marginal utility value of the real wage $w_t \equiv W_t/P_t$:

$$\iota \left(h_t^i\right)^{\frac{1}{\varphi}} = \left(c_t^i\right)^{-\frac{1}{\sigma}} w_t.$$

In addition, the household's optimal plan satisfies the transversality conditions

$$\lim_{t\to\infty} \beta^{t+1} \mathbb{E}_0 \left[\left(c_{t+1}^i\right)^{-\frac{1}{\sigma}} \frac{b_t^i}{P_{t+1}/P_t} \right] = 0, \qquad \lim_{t\to\infty} \beta^{t+1} \mathbb{E}_0 \left[\left(c_{t+1}^i\right)^{-\frac{1}{\sigma}} \frac{m_t^i}{P_{t+1}/P_t} \right] = 0.$$

The necessity of these conditions follows from the arguments of Kamihigashi (2001, 2002, 2005).

Finally, the household's flow budget constraint in real terms is

$$c_t^i + m_t^i + Q_t b_t^i = w_t h_t^i + d_t - \tau_t + \frac{1}{\Pi_t} b_{t-1}^i + \frac{1}{\Pi_t} m_{t-1}^i.$$

C.2 Firms

A continuum of monopolistically competitive firms indexed by $j \in [0,1]$ produces the differentiated goods. Firm j hires labor h_t^j at the competitive nominal wage W_t and produces with the linear technology

$$y_t^j = a h_t^j.$$

It faces the demand schedule

$$y_t^j = \left(\frac{P_t^j}{P_t}\right)^{-\varepsilon} (c_t - f_t + g_t),$$

where c_t is aggregate consumption and g_t is government purchases. This specification of demand implicitly makes three assumptions. First, government demand for privately produced goods has the same CES form as household demand. Second, households satisfy their consumption demand by first purchasing government goods f_t. Third, f_t is smaller than c_t, so that the economy does not end up in a corner solution in which private goods are not demanded. The last assumption is satisfied in our calibration because f_t remains small along the transition path.

The firm's real profit, which is paid out to households as dividends, is

$$d_t^j = \frac{P_t^j y_t^j - W_t h_t^j}{P_t}.$$

Price setting is staggered as in Calvo (1983). In each period, with probability $1-\theta \in [0,1]$ the firm may reset its price, and with probability θ the price remains unchanged. The adjustment opportunity is drawn independently across firms and over time. Because firms are owned by the households, they value nominal payoffs in period $t+k$ with the owners' stochastic discount factor

$$\Lambda_{t,t+k} \equiv \beta^k \left(\frac{c_{t+k}}{c_t}\right)^{-\frac{1}{\sigma}} \frac{P_t}{P_{t+k}},$$

where we dropped superscripts i as consumption choices are identical in equilibrium.

Optimal price setting. Consider a firm that resets its price in period t. The problem is purely forward-looking, so all resetting firms choose a common reset price P_t^*. A price set in period t still applies in period $t+k$ with probability θ^k, and only the profit flows in those states depend on P_t^*. The firm therefore chooses P_t^* to maximize

$$\mathbb{E}_t \sum_{k=0}^{\infty} \theta^k \Lambda_{t,t+k} \left[P_t^* y_{t+k|t} - \frac{W_{t+k}}{a} y_{t+k|t}\right],$$

where

$$y_{t+k|t} = \left(\frac{P_t^*}{P_{t+k}}\right)^{-\varepsilon} (c_{t+k} + g_{t+k})$$

denotes period-$t+k$ output of a firm whose price was last set in period t, and $W_{t+k}h_{t+k|t} = (W_{t+k}/a)\, y_{t+k|t}$ is its wage bill.

The first-order condition can be written as

$$\mathbb{E}_t \sum_{k=0}^{\infty} (\beta\theta)^k \left(c_{t+k}\right)^{-\frac{1}{\sigma}} y_{t+k|t} \left[\frac{P_t^*}{P_{t+k}} - \frac{\varepsilon}{\varepsilon - 1} mc_{t+k}\right] = 0,$$

where

$$mc_t \equiv \frac{w_t}{a}$$

is the real marginal cost of production: the real wage divided by the marginal product of labor.

Aggregate price dynamics. In period t, a fraction $1-\theta$ of goods are sold at the common reset price P_t^*, while the remaining fraction θ are sold at their own period-$t-1$ prices. Because adjustment opportunities are drawn independently of a firm's price, the average of $\left(P_{t-1}^j\right)^{1-\varepsilon}$ across non-adjusters equals $P_{t-1}^{1-\varepsilon}$. The aggregate price index therefore evolves according to

$$P_t^{1-\varepsilon} = \theta P_{t-1}^{1-\varepsilon} + (1-\theta)\left(P_t^*\right)^{1-\varepsilon}.$$

C.3 Government

The government's flow budget constraint is

$$Q_t B_t + M_t = B_{t-1} + M_{t-1} - P_t s_t - P_t f_t,$$

where s_t is real primary surpluses, which equal the difference between government revenues τ_t and purchases g_t. f_t are sales of real government services or goods. In principle, the government could also sell public property more broadly, but to avoid introducing an additional state variable we restrict attention to service and goods sales, which are given as an exogenous endowment. Note that we do not include f_t in our definition of the primary surpluses to match the answer options from our survey.

Tax revenues are collected lump-sum and follow the fiscal rule

$$\tau_t = \tau + \psi_b \left(b_{t-1} - b\right) + \mathcal{E}_t^{\tau},$$

where $\psi_b \geq 0$ governs the sensitivity of taxes to outstanding debt and $\mathcal{E}_t^{\tau}$ is an unexpected deviation from a rule. For the decomposition exercise, we will split tax revenues as follows

$$\tau_t \equiv \underline{\tau} + \psi_{y,t} y_t,$$

where we refer to $\psi_{y,t}$ as the tax rate, y_t as the tax base and $\underline{\tau}$ is a business-cycle-invariant tax when positive and a business-cycle-invariant tax credit when negative. When $\underline{\tau} \equiv 0$, $\psi_{y,t}$ is the effective tax rate. We introduce the constant $\underline{\tau}$ to be able to calibrate the steady state level of the tax rate independently of the historical average share of government revenues over GDP.

Government spending responds countercyclically to deviations of output from steady state:

$$g_t = g + \mu_y \left(y_t - y\right) + \mathcal{E}_t^{g},$$

with $\mu_y \leq 0$ and where $\mathcal{E}_t^g$ is an unexpected deviation from the rule.

Finally, the rule governing the choice of government services and goods sales (or purchases if negative) is

$$f_t = \vartheta_b \left(b_{t-1} - b \right),$$

with $\vartheta_b \geq 0$. Under this rule, f_t is positive when debt is above steady state, and negative (the government purchases services from the private sector) when debt is below steady state.

C.4 Central Bank

Monetary policy follows a Taylor rule of the form

$$1 + i_t = (1 + i) \left(\frac{P_t}{P_{t-1}} \right)^{\phi_\pi} \left(\frac{B_t}{P_t b} \right)^{\phi_b},$$

where $\phi_\pi \geq 0$ and $\phi_b \leq 0$ govern the responses to inflation and to deviations of real debt from its steady-state level.

The central bank passively accommodates money demand by issuing M_t^s as demanded by households.

C.5 Market Clearing

All markets clear:

$$\begin{aligned}
y_t + f_t &= c_t + g_t, \\
\int_0^1 h_t^j dj &= \int_0^1 h_t^i di, \\
\int M_t^i di &= M_t, \\
\int B_t^i di &= B_t,
\end{aligned}$$

where the second condition equates firms' labor demand $\int_0^1 h_t^j dj$ to households' labor supply $\int_0^1 h_t^i di$.

C.6 Steady State

We consider a steady state with zero inflation, constant values of aggregate endogenous variables, and positive government debt.

The government-bond Euler equation yields

$$Q = \chi_b \frac{(c)^{\frac{1}{\sigma}}}{(b)^{\frac{1}{\upsilon_b}}} + \beta.$$

Since $\chi_b > 0$, the steady-state bond price satisfies $Q > \beta$: government bonds carry a liquidity yield.

The money Euler equation is

$$1 = \chi_m \frac{(c)^{\frac{1}{\sigma}}}{(m)^{\frac{1}{\upsilon_m}}} + \beta.$$

In a zero-inflation steady state the reset price equals the aggregate price level, $P^* = P$, there is no price dispersion, and the reset-price first-order condition implies that real marginal cost equals the inverse of the markup, $w/a = (\varepsilon - 1)/\varepsilon$. Combining this condition with the household's labor supply condition and $h = y/a$ yields

$$\iota \left(\frac{y}{a}\right)^{1+\varphi^{-1}} = \frac{\varepsilon - 1}{\varepsilon} \cdot \frac{y}{c^{\frac{1}{\sigma}}}.$$

The flow budget constraint of the government becomes

$$s = (1 - Q)\, b,$$

where primary surpluses satisfy

$$s = \tau - g.$$

The aggregate resource constraint reduces to

$$y = c + g,$$

where we have used the fact that $f = 0$ in steady state.

The intertemporal budget constraint is

$$b = \frac{1}{1-\beta} s + \frac{Q - \beta}{1 - \beta} b.$$

Note that the second term

$$\frac{Q - \beta}{1 - \beta} b = \frac{\chi_b \left(c\right)^{\frac{1}{\sigma}}}{1 - \beta} b^{1 - \frac{1}{v_b}} = \frac{\chi_b \left(1 - s_g\right)^{\frac{1}{\sigma}} y^{\frac{1}{\sigma}}}{1 - \beta} b^{1 - \frac{1}{v_b}}$$

is invariant to the level of debt when $v_b = 1$.

C.7 Log-linearization

We log-linearize the equilibrium conditions around a steady state with zero inflation and positive real public debt. For any variable x_t, we let x denote its steady-state value and y denote steady-state output. We use two notational conventions: a hatted variable, that is, $\hat{x}_t \equiv (x_t - x)/x$, denotes the percent deviation from steady state, while a variables with a tilde on top, that is, $\widetilde{x}_t \equiv (x_t - x)/y$, expresses the deviation as a fraction of steady-state output. For the interest rate, we use log deviation and write $\hat{i}_t \equiv \log(1 + i_t) - \log(1 + i)$. And for inflation, we write $\pi_t \equiv \hat{P}_t - \hat{P}_{t-1}$.

Euler equations. Defining the ratio of the subjective discount factor to the steady-state price of the government bond as

$$\alpha \equiv \frac{\beta}{Q} = \beta \left(\chi_b \frac{c^{\frac{1}{\sigma}}}{b^{\frac{1}{v_b}}} + \beta \right)^{-1} \in (0, 1],$$

we express a log-linearized bonds Euler equation as

$$\hat{c}_t = \frac{\sigma\,(1 - \alpha)}{v_b s_b} \widetilde{b}_t + \alpha \mathbb{E}_t \left[\hat{c}_{t+1}\right] - \sigma \left(\hat{i}_t - \alpha \mathbb{E}_t \left[\pi_{t+1}\right]\right).$$

The log-linear money Euler equation is

$$\hat{c}_t^i = \sigma\left(1-\beta\right) v_m^{-1} s_m^{-1} \widetilde{m}_t^i + \beta \mathbb{E}_t\left[\hat{c}_{t+1}^i\right] + \sigma\beta \mathbb{E}_t\left[\pi_{t+1}\right],$$

where $s_m \equiv m/y$.

Transversality conditions. Log-linearizing the transversality conditions around the steady state, we get

$$\lim_{t\to\infty} \beta^t \mathbb{E}_0[\widetilde{b}_t] = 0, \qquad \lim_{t\to\infty} \beta^t \mathbb{E}_0\left[\widetilde{m}_t\right] = 0.$$

Aggregate resource constraint. Linearizing the goods market clearing condition $y_t + f_t = c_t + g_t$ around the steady state gives

$$\hat{y}_t + \widetilde{f}_t = \widetilde{g}_t + s_c \hat{c}_t,$$

where $s_c \equiv c/y$.

Labor supply and marginal cost. Log-linearizing the household's labor supply condition gives

$$\widehat{w}_t = \varphi^{-1}\hat{h}_t + \sigma^{-1}\hat{c}_t.$$

Because $\hat{h}_t = \hat{y}_t$, the log-linearized real marginal cost is

$$\widehat{mc}_t = \widehat{w}_t = \varphi^{-1}\hat{y}_t + \sigma^{-1}\hat{c}_t.$$

Phillips curve. Log-linearizing $P_t^{1-\varepsilon} = \theta P_{t-1}^{1-\varepsilon} + \left(1-\theta\right)\left(P_t^*\right)^{1-\varepsilon}$ gives

$$\pi_t = \left(1-\theta\right)\left(\hat{P}_t^* - \hat{P}_{t-1}\right). \tag{C.1}$$

Next, we log-linearize the reset-price first-order condition

$$\mathbb{E}_t \sum_{k=0}^{\infty} \left(\beta\theta\right)^k \left[\hat{P}_t^* - \hat{P}_{t+k} - \widehat{mc}_{t+k}\right] = 0.$$

Solving for $\hat{P}_t^*$ gives

$$\hat{P}_t^* = \left(1-\beta\theta\right)\mathbb{E}_t \sum_{k=0}^{\infty} \left(\beta\theta\right)^k \left[\hat{P}_{t+k} + \widehat{mc}_{t+k}\right],$$

or in recursive form

$$\hat{P}_t^* = \left(1-\beta\theta\right)\left(\hat{P}_t + \widehat{mc}_t\right) + \beta\theta \mathbb{E}_t\left[\hat{P}_{t+1}^*\right]. \tag{C.2}$$

Combining (C.1) and (C.2), we obtain a standard representation of the Phillips curve

$$\pi_t = \beta \mathbb{E}_t\left[\pi_{t+1}\right] + \xi \widehat{mc}_t,$$

where

$$\xi \equiv \frac{\left(1-\theta\right)\left(1-\beta\theta\right)}{\theta}.$$

This is the textbook New Keynesian Phillips curve under Calvo pricing.

Finally, using the market clearing condition to substitute $\hat{c}_t = s_c^{-1}\left[\hat{y}_t - \left(\widetilde{g}_t - \widetilde{f}_t\right)\right]$ into $\widehat{mc}_t$ gives the Phillips curve in terms of the output gap

$$\pi_t = \beta \mathbb{E}_t\left[\pi_{t+1}\right] + \widetilde{\kappa}\left[\hat{y}_t - \Gamma\left(\widetilde{g}_t - \widetilde{f}_t\right)\right],$$

where the slope is $\widetilde{\kappa} \equiv \xi\left(\varphi^{-1} + \sigma^{-1}s_c^{-1}\right)$ and $\Gamma \equiv \sigma^{-1}s_c^{-1}/\left(\varphi^{-1} + \sigma^{-1}s_c^{-1}\right) \in [0,1]$.

Monetary policy rule. The log-linearized Taylor rule is

$$\hat{i}_t = \phi_\pi \pi_t + \phi_b s_b^{-1}\widetilde{b}_t.$$

Debt dynamics. The log-linearized debt accumulation equation is

$$\widetilde{b}_t = \alpha\beta^{-1}\widetilde{b}_{t-1} - \alpha\beta^{-1}\left(\widetilde{s}_t + \widetilde{f}_t\right) + s_b\left(\hat{i}_t - \alpha\beta^{-1}\pi_t\right) - \alpha\beta^{-1}\left(\widetilde{m}_t - \widetilde{m}_{t-1} + s_m\pi_t\right),$$

where $\widetilde{s}_t \equiv \widetilde{\tau}_t - \widetilde{g}_t$ and we have used $\alpha\beta^{-1} = Q^{-1}$.

Linearizing the tax rule gives

$$\widetilde{\tau}_t = \psi_b\widetilde{b}_{t-1} + \varepsilon_t^\tau, \tag{C.3}$$

where $\varepsilon_t^\tau \equiv \mathcal{E}_t^\tau/y$.

Government spending is

$$\widetilde{g}_t = \mu_y\hat{y}_t + \varepsilon_t^g,$$

where $\varepsilon_t^g \equiv \mathcal{E}_t^g/y$.

Combining these gives the dynamics of primary surpluses,

$$\widetilde{s}_t = \psi_b\widetilde{b}_{t-1} - \mu_y\hat{y}_t + \left(\varepsilon_t^\tau - \varepsilon_t^g\right),$$

and the rule for service sales is

$$\widetilde{f}_t = \vartheta_b\widetilde{b}_{t-1}.$$

C.8 Decomposition of Financing Sources

Iterating the government's flow budget constraint forward and imposing the household transversality condition yield its intertemporal version

$$\widetilde{b}_{t-1} = \mathbb{E}_t\sum_{k=0}^{\infty}\beta^k\left[\widetilde{s}_{t+k} + \widetilde{f}_{t+k} - s_b\left(Q\hat{i}_{t+k} - \pi_{t+k}\right) + \left(\Delta\widetilde{m}_{t+k} + s_m\pi_{t+k}\right) + \left(Q-\beta\right)\widetilde{b}_{t+k}\right].$$

Fiscal shocks. To match the design of our survey, we consider a shock that exogenously changes primary surpluses for T quarters by $\{\widetilde{s}_t^{\text{exo}}\}_{t=0}^{T-1}$, where $T = 4$ in the case of the military spending shock and $T = 1$ in the case of the transfer shock. To mirror the hypothetical scenarios in the survey, the endogenous response of fiscal surpluses is shut down during these T quarters. Starting from the steady state and normalizing by the cumulative change in the exogenous component of primary surpluses, we obtain the following

decomposition:

$$1 = \underbrace{\frac{s_b Q \mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \left(-\hat{i}_k\right)}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Nominal interest rate}} + \underbrace{\frac{\left(s_b + s_m\right) \mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \pi_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Inflation}} + \underbrace{\frac{\mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \Delta \widetilde{m}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Money printing}} +$$

$$\underbrace{\frac{\mathbb{E}_0 \sum_{k=T}^{\infty} \beta^k \widetilde{s}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Primary surpluses}} + \underbrace{\frac{\mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \widetilde{f}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Gov. goods sale}} + \underbrace{\frac{\left(Q - \beta\right) \mathbb{E}_0 \sum_{k=0}^{\infty} \beta^k \widetilde{b}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{“Bubble”}}.$$

The variation in surpluses beyond period 3 can be further decomposed into a tax-rate effect, a tax-base effect, and a government-spending effect:

$$\widetilde{s}_t = \widetilde{\tau}_t - \widetilde{g}_t = \psi_y \hat{\psi}_{y,t} + \psi_y \hat{y}_t - \mu_y \hat{y}_t,$$

which allows the primary-surplus share to be written as

$$\underbrace{\frac{\mathbb{E}_0 \sum_{k=T}^{\infty} \beta^k \widetilde{s}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Primary surpluses}} = \underbrace{\frac{\psi_y \sum_{k=T}^{\infty} \beta^k \hat{\psi}_{y,k}}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Tax rate}} + \underbrace{\frac{\psi_y \sum_{k=T}^{\infty} \beta^k \hat{y}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Tax base}} + \underbrace{\frac{-\mu_y \sum_{k=T}^{\infty} \beta^k \hat{y}_k}{-\sum_{k=0}^{T-1} \beta^k \widetilde{s}_k^{\text{exo}}}}_{\text{Gov. spending}}.$$

D Main Household Survey Questions

The text in ALL CAPS, square brackets, and section titles contains technical information that was not shown to respondents. The order of questions presented in this section corresponds to the order of questions in the survey.

[RANDOMLY SPLIT ALL PARTICIPANTS INTO THREE GROUPS AND DENOTE THEM: GROUP1 (TOTAL LEVEL OF DEBT), GROUP2 (DEBT FOLLOWING MILITARY SPENDING SHOCK), GROUP3 (DEBT FOLLOWING TRANSFERS SHOCK)]

D.1 Introduction

Thanks a lot for participating in this study!

This survey is about the U.S. national debt. It will ask for your opinion about how the government sustains its debt and a set of demographic questions.

Importantly, we do not expect you to be experts on national debt. There are no right or wrong answers to our questions, as they concern the future, which is uncertain, and your thoughts and predictions reflect your personal views.

Key Information

- *You can skip any question you prefer not to answer.*
- *This survey is conducted under a strict policy of no deception. You will never be lied to during this survey. The instructions explain how the survey works.*
- *Participation in the study typically takes about 12 minutes.*
- *No personally identifying data about you will be collected, and all data and published work resulting from this survey will be fully anonymized and maintain your individual privacy.*
- *Your participation in this study is voluntary. Even if you consent to participate, you can withdraw consent or discontinue participation at any time, but you will receive a payment only if you complete the study.*

For additional details, see this information sheet.

If you agree to participate in the research, please click on the Yes button below.

- *Yes, I wish to participate in this study.*
- *No, I decline the opportunity to participate in this study.*

Introduction.

The United States federal government issues debt to cover some of its financing needs. The holders of this debt are typically households, businesses (including financial firms), and foreigners. Some branches of the U.S. federal government (like the Social Security Trust Fund) also buy U.S. government debt.

In this survey, we're only looking at the debt held by people and institutions outside the U.S. government. We'll call this the national debt held by the public, or just the national debt for short.

We will now ask you a question about the national debt-to-GDP ratio in the United States.

The national debt-to-GDP ratio is the national debt (held by the public) divided by the country's economic output, measured by gross domestic product (GDP). (GDP is the market value of all final goods and services produced by an economy in one year).

What do you think was the national debt-to-GDP ratio in the end of 2024? (Please enter your answer as a percentage in the text field below.).

- National debt-to-GDP in % [ ]

For your information, the U.S. Treasury Department reported that at the end of 2024, the national debt of the U.S. federal government (held by the public) was $29 trillion—equivalent to 97% of the U.S. Gross Domestic Product (GDP) for 2024.

Primary Balances.

To evaluate the government's finances, analysts often focus on the primary balance — the difference between tax revenues and government spending, excluding interest payments. It highlights the structural gap between what the government collects and what it spends on goods, services, and social programs.

A negative primary balance means the government spends more than it collects and must borrow to cover the gap. A positive primary balance allows the government to pay interest and reduce its debt.

For your information, the U.S. Treasury Department reported that in 2024, the U.S. primary balance was negative: –$1 trillion, or –3.3% of GDP. In other words, the U.S. federal government spent more than it collected in tax revenues.

D.2 Group 1: Total Level of Debt

D.2.1 Unconditional Scenario: Current Debt Financing

[ASK If GROUP1 = TRUE. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
The next question is especially important for our research. Please give it your full attention before answering.

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its current level of debt? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK IF GROUP1 = TRUE AND IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" WAS CHOSEN IN THE PREVIOUS QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In the previous question, you chose that "The government will keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)".

Which of the following reasons do you think would allow the government to continue borrowing in this situation? (Pick all that apply)

- *Today's government bond investors believe that future investors will keep purchasing government debt*
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms*
- *The government will force private banks to buy its debt, for example, through financial regulation*
- *Something else (please specify)*

  ☐

[ASK IF GROUP1 = TRUE AND IF AT LEAST ONE FINANCING METHOD WAS CHOSEN. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In your opinion, what percentage of the U.S. national debt will be handled by each of the options you selected previously (shown below)? (Please enter percentages below. Your answers should add up to 100%.)

The government will...

- *increase tax revenues through higher tax rates ...%*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates ...%*
- *lower government spending (on goods, services, and social programs) ...%*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars ...%*
- *print money to repay the debt ...%*
- *sell government property (like federal buildings, land, or highways) ...%*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) ...%*
- *default on part of the debt ...%*
- *lower the interest rate on its debt ...%*
- *do something else (please specify) ...%*

[ASK IF GROUP1 = TRUE, IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" AND AT LEAST ONE BUBBLE OPTION WAS CHOSEN. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In the previous question, you answered that x% of government debt will be rolled over potentially forever.

Please allocate this x% across the options you selected earlier (listed below), in any proportions you think are appropriate. (Please enter percentages below. Your answers should add up to x%.)

- *Today's government bond investors believe that future investors will keep purchasing government debt* . . . %
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms* . . . %
- *The government will force private banks to buy its debt, for example, through financial regulation* . . . %
- *Something else (please specify)* . . . %

D.2.2 Hypothetical Scenario #1: Current Level of Debt Financing in the Future

[ASK If GROUP1 = TRUE]
Imagine that today is January 1, 2030. The U.S. has a new president for about a year. Picture the U.S. economy performing as it generally does during normal times: not shrinking or struggling as it would in a recession, and not growing at an unusually fast pace. In other words, it's "business as usual" for the economy-stable, with no major ups or downs.

Imagine that on January 1, 2030, the U.S. national debt-to-GDP ratio is the same as in December 2024 (as a reminder, this national debt-to-GDP ratio was 97 percent).

Would you answer the previous questions (about the ways the U.S. government would handle its debt) differently in this hypothetical scenario?

- *Yes*
- *No*

[ASK IF GROUP1 = TRUE AND IF "Yes" WAS CHOSEN IN THE PREVIOUS QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its debt in this hypothetical scenario? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK IF GROUP1 = TRUE, IF "Yes" and AT LEAST ONE FINANCING METHOD WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In your opinion, what percentage of the U.S. national debt will be handled by each of the options you selected previously (shown below)? (Please enter percentages below. Your answers should add up to 100%.)

- *increase tax revenues through higher tax rates . . . %*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates . . . %*
- *lower government spending (on goods, services, and social programs) . . . %*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars . . . %*
- *print money to repay the debt . . . %*
- *sell government property (like federal buildings, land, or highways) . . . %*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) . . . %*
- *default on part of the debt . . . %*
- *lower the interest rate on its debt . . . %*
- *do something else (please specify) . . . %*

D.2.3 Perception of Historical Financing

[ASK IF GROUP1 = TRUE. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DID SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
How in your view the U.S. federal government handled its debt in the past? (Select all options you think apply.)

The government ...

- *increased tax revenues through higher tax rates*
- *increased tax revenues thanks to economic growth, which expanded the tax base, without needing to increase tax rates*
- *lowered government spending (on goods, services, and social programs)*
- *allowed for inflation, making debt issued today easier to repay with less valuable future dollars*
- *printed money to repay the debt*
- *sold government property (like federal buildings, land, or highways) to repay debt*
- *kept borrowing (rolling over the debt) without collecting revenues above government spending (on goods, services, and social programs)*
- *defaulted on part of the debt*
- *lowered the interest rate on its debt*
- *did something else (please specify)*

D.2.4 Hypothetical Scenario #2: No Bubble

[ASK If GROUP1 = TRUE AND IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" WAS CHOSEN. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
Earlier, when you answered the question about how the U.S. government will handle its current level of national debt, you chose: "The U.S. government will keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)."

Please imagine that the U.S. government cannot continue borrowing (rolling over the debt) without collecting revenues above government spending (on goods, services, and social programs). This may happen because investors no longer believe that future investors will purchase the debt, or because they no longer see U.S. government debt as a safe and liquid way to store their wealth, or because the government cannot force private banks to hold government debt.

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its debt in this hypothetical scenario? (Pick all that apply)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK If GROUP1 = TRUE, IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" AND AT LEAST ONE OPTION WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In your opinion, in this hypothetical scenario (where the government cannot continue borrowing without running positive primary balances), what percentage of the U.S. national debt will be handled by each of the options you selected in the previous question? (Please enter percentages below. Your answers should add up to 100%.)

- *increase tax revenues through higher tax rates . . . %*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates . . . %*
- *lower government spending (on goods, services, and social programs) . . . %*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars . . . %*
- *print money to repay the debt . . . %*
- *sell government property (like federal buildings, land, or highways) . . . %*
- *default on part of the debt . . . %*
- *lower the interest rate on its debt . . . %*
- *do something else (please specify) . . . %*

D.2.5 Hypothetical Scenario #3: High Debt Financing in the Future

[ASK If GROUP1 = TRUE]
Now, we would like you to think about the following hypothetical scenario.

Imagine that today is January 1, 2030. The U.S. has a new president for about a year. Picture the U.S. economy performing as it generally does during normal times: not shrinking or struggling as it would in a recession, and not growing at an unusually fast pace. In other words, it's "business as usual" for the economy-stable, with no major ups or downs.

Imagine that on January 1, 2030, the U.S. national debt-to-GDP ratio is 150 percent, compared to 97 percent in December 2024.

[ASK If GROUP1 = TRUE. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its debt in this hypothetical scenario (where the national debt is 150% of GDP)? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK If GROUP1 = TRUE AND IF AT LEAST ONE OPTION WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In your opinion, in this hypothetical scenario (where the national debt is 150% of GDP), what percentage of the U.S. national debt will be handled by each of the options you selected in the previous question? (Please enter percentages below. Your answers should add up to 100%.)

- *increase tax revenues through higher tax rates . . . %*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates . . . %*
- *lower government spending (on goods, services, and social programs) . . . %*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars . . . %*
- *print money to repay the debt . . . %*
- *sell government property (like federal buildings, land, or highways) . . . %*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) . . . %*
- *default on part of the debt . . . %*
- *lower the interest rate on its debt . . . %*
- *do something else (please specify) . . . %*

D.3 Group 2: Debt Following Military Spending Shock

D.3.1 Military Spending Hypothetical Scenario

[ASK If GROUP2 = TRUE]

Introduction.

You will read a scenario describing a change in U.S. government spending. We will ask you to predict how this change affects the U.S. economy.

[ASK If GROUP2 = TRUE]

Definition: Government Military Spending.

We will be interested in government military spending on goods and services. This spending serves to meet current military needs. New body armor, radios, and drones are examples of spending on goods. An example of spending on services is the salaries of military personnel.

Note that this type of spending excludes investments, such as building new military bases, aircrafts, and ships.

[ASK If GROUP2 = TRUE]
Details.

We would like you to think about the following hypothetical scenario.

Please imagine that today is January 1, 2030. The U.S. has a new president for about a year. Picture the U.S. economy performing as it generally does during normal times: not shrinking or struggling as it would in a recession, and not growing at an unusually fast pace. In other words, its business as usual for the economy-stable, with no major ups or downs.

Imagine that on January 1, 2030, the U.S. government unexpectedly announces and starts implementing a change in military spending on goods and services. Here are more details about this policy.

- *Size. The military spending increases by 10 percent relative to US output (that is, GDP) or, equivalently, by about $3 trillion (about $9,000 per U.S. resident).*
- *Duration. The change lasts for one year.*
- *Other spending. This change does not affect other types of government spending.*
- *Financing. Over this year, the government will issue national debt to finance this spending change. That is, the government debt-to-GDP ratio will increase by 10 percentage points.*
- *Rationale. The change happens even though the government has not revised its assessment of national security or economic conditions.*

[ASK If GROUP2 = TRUE]
Quiz.

We now want to assess how clear the scenario description was.

Please choose all correct statements about the hypothetical government spending change just described. Do not choose incorrect statements.

- *The spending change lasts for 6 months.*
- *Government military spending on goods and services buys new military equipment, such as radios, and pays military personnel.*
- *The size of the hypothetical government spending change is 10 percent relative to US output.*
- *The government immediately increases taxes to finance the hypothetical change in government spending.*
- *The government increases its spending on military goods and services.*
- *Government military spending on goods and services includes building new hydroelectric power plant.*

D.3.2 Debt Financing Following Military Spending Shock

[ASK If GROUP2 = TRUE]
In your opinion, what will the U.S. government do, both in the near and distant future, to handle the additional debt resulting from increased military spending? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK IF GROUP2 = TRUE AND IF AT LEAST ONE OPTION WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In your opinion, what percentage of the newly issued debt will be handled by each of the options you selected in the previous question? (Please enter percentages below. Your answers should add up to 100%.)

The government will ...

- *increase tax revenues through higher tax rates ...%*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates ...%*
- *lower government spending (on goods, services, and social programs) ...%*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars ...%*
- *print money to repay the debt ...%*
- *sell government property (like federal buildings, land, or highways) ...%*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) ...%*
- *default on part of the debt ...%*
- *lower the interest rate on its debt ...%*
- *do something else (please specify) ...%*

[ASK IF GROUP2 = TRUE AND IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In the previous question, you assigned x% to the option: "The government will keep borrowing (rolling over the debt), potentially forever, even without increasing revenues or lowering government spending (on goods, services, and social programs)"

Please allocate this x% across the following possible reasons that could allow the government to continue borrowing in this situation, in any proportions you think are appropriate. (Please enter percentages below. Your answers should add up to x%.)

- *Today's government bond investors believe that future investors will keep purchasing government debt* . . . %
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms* . . . %
- *The government will force private banks to buy its debt, for example, through financial regulation* . . . %
- *Something else (please specify)* . . . %

D.3.3 Future Taxes Following Military Spending Shock

[ASK IF GROUP2 = TRUE AND IF "increase tax revenues through higher tax rates" AND/OR "increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates" WAS CHOSEN IN THE PREVIOUS QUESTIONS]
Your answer suggests that you believe the hypothetical policy change will be funded, at least in part, by higher tax revenues in the future.

Do you expect that you personally will have to pay higher taxes in the future as a result of this policy change?

- *Yes*
- *No*

[ASK IF GROUP2 = TRUE AND IF "increase tax revenues through higher tax rates" AND/OR "increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates" AND IF "Yes" WAS CHOSEN IN THE PREVIOUS QUESTION]
Because you expect an increase in your taxes, do you think the tax amount you would pay - as a percentage of your income - would be higher, lower, or about the same as what a typical American would pay?

Relative to a typical American, I would pay ...

- *less*
- *about the same*
- more

D.4 Group 3: Debt Following Cash Transfer Shock

D.4.1 Cash Transfer Hypothetical Scenario

[ASK If GROUP3 = TRUE]
Introduction.

You will read a scenario describing a change in cash transfers by the U.S. government. We will ask you to predict how this change affects the U.S. economy.

[ASK If GROUP3 = TRUE]
Details.

We would like you to think about the following hypothetical scenario.

Please imagine that today is January 1, 2030. The U.S. has a new president for about a year. Picture the U.S. economy performing as it generally does during normal times: not shrinking or struggling as it would in a recession, and not growing at an unusually fast pace. In other words, its "business as usual" for the economy-stable, with no major ups or downs.

Imagine that on January 1, 2030, the U.S. government unexpectedly announces that it will give the same cash payment to every U.S. resident and immediately starts distributing the money. Here are more details about this policy.

- *Size. The total value of these transfers is 10 percent relative to US output (that is, GDP) or, equivalently, about \$3 trillion (about \$9,000 per U.S. resident).*
- *Duration. This is a one-time transfer.*
- *Other spending. This change does not affect other types of government spending.*
- *Financing. The government will issue national debt to finance the transfers. That is, the government debt-to-GDP ratio will increase by 10 percentage points.*
- *Rationale. The change happens even though the government has not revised its assessment of economic conditions. It is simply a policy decision to provide households with additional resources.*

[ASK If GROUP3 = TRUE]
Quiz.

We now want to assess how clear the scenario description was.

Please choose all correct statements about the hypothetical government spending change just described. Do not choose incorrect statements.

- *The transfers occur annually for five years.*
- *The government immediately cuts military spending to finance the transfers.*
- *The size of these transfers is 10 percent of U.S. output.*
- *The government immediately increases taxes to finance the transfers.*
- *The transfers are unexpected news for the population.*
- *The government transfers are not related to economic conditions in the U.S.*

D.4.2 Debt Financing Following Cash Transfer Shock

[ASK If GROUP3 = TRUE. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In your opinion, what will the U.S. government do, both in the near and distant future, to handle the additional debt resulting from these cash transfers? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK If GROUP3 = TRUE AND IF AT LEAST ONE OPTION WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In your opinion, what percentage of the newly issued debt will be handled by each of the options you selected in the previous question? (Please enter percentages below. Your answers should add up to 100%.)

The government will ...

- *increase tax revenues through higher tax rates ...%*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates ...%*
- *lower government spending (on goods, services, and social programs) ...%*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars ...%*
- *print money to repay the debt ...%*
- *sell government property (like federal buildings, land, or highways) ...%*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) ...%*
- *default on part of the debt ...%*
- *lower the interest rate on its debt ...%*
- *do something else (please specify) ...%*

[ASK IF GROUP3 = TRUE AND IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" WAS CHOSEN IN THE PREVIOUS QUESTION. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]

In the previous question, you answered that x% of government debt will be rolled over potentially forever.

Please allocate this x% across the options you selected earlier (listed below), in any proportions you think are appropriate. (Please enter percentages below. Your answers should add up to x%.)

- *Today's government bond investors believe that future investors will keep purchasing government debt ...%*
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms ...%*
- *The government will force private banks to buy its debt, for example, through financial regulation ...%*
- *Something else (please specify) ...%*

D.4.3 Future Taxes Following Cash Transfer Shock

[ASK IF GROUP3 = TRUE AND IF "increase tax revenues through higher tax rates" AND/OR "increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates" WAS CHOSEN IN THE PREVIOUS QUESTION]
Your answer suggests that you believe the hypothetical policy change will be funded, at least in part, by higher tax revenues in the future.

Do you expect that you personally will have to pay higher taxes in the future as a result of this policy change?

- *Yes*
- *No*

[ASK IF GROUP3 = TRUE AND IF "increase tax revenues through higher tax rates" AND/OR "increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates" AND IF "Yes" WAS CHOSEN IN THE PREVIOUS QUESTION]
Because you expect an increase in your taxes, do you think the tax amount you would pay - as a percentage of your income - would be higher, lower, or about the same as what a typical American would pay?

Relative to a typical American, I would pay ...

- *less*
- *about the same*
- more

D.5 Attention Check

The next question is about the following problem. In questionnaires like ours, sometimes some participants do not carefully read the questions and just quickly click through the survey. This means that there are a lot of random answers, which compromise the results of research studies. To show that you read our questions carefully, please choose both "Very strongly interested" and "Not at all interested" as your answer to the below question.

Given the above, how interested are you in economics?

- *Very strongly interested*
- *Very interested*
- *A little bit interested*
- *Almost not interested*
- *Not at all interested*

D.6 Demographics Questions

Now please tell us some information about yourself.

What is your current age?

What state do you currently reside in?

What best describes your current employment situation?

- *Working full-time (for someone or self-employed)*
- *Working part-time (for someone or self-employed)*
- *Not working*

Do you work for the U.S. government or a business funded by the US government?

- *Yes*
- *No*

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an independent, or something else?

- *Republican*
- *Democrat*
- *Independent*
- *Something else*

To what extent do you agree with the following statement?

I usually follow news on the national economy.

- *Strongly agree*
- *Agree*
- *Neither agree nor disagree*
- *Disagree*
- *Strongly disagree*

What is the highest level of school you have completed, or the highest degree you have received?

- *Less than high school*
- *High school diploma (or equivalent)*
- *Some college but no degree (including academic, vocational, or occupational programs)*
- *Associate/Junior College degree (including academic, vocational, or occupational programs)*
- *Bachelor's degree (For example: BA, BS)*
- *Post-graduate degree (For example: MA, MS, PhD, MD, JD)*

What is the highest level of any course in economics, finance or business you ever took?

- *I have never taken a course in economics, finance, or business.*
- *High-school level*
- *College level*
- *Graduate level*

Which of these describes you more accurately?

- *Male*
- *Female*

Are you currently married or living as a partner with someone?

- *Yes*
- *No*

Do you have children?

- *Yes*
- *No*

D.7 Household Finances

How much income did your household earn in 2024 (before tax)? If you do not know, please estimate and choose an appropriate range.

Now we would ask you to enter an exact dollar amount of your household's 2024 income (before taxes) that lies in the bracket you specified above.

If your household experienced an emergency, would you need to borrow money to pay for a $2,000 expense?

- *No, I would not need to borrow money to cover a $2,000 expense*
- *Yes, I would need to borrow money to cover a $2,000 expense*
- *I would not be able to pay for this expense because I cannot borrow.*

Which financial assets (excluding housing) do you invest in? (Pick all that apply)

- *Checking and Savings Account*
- *Cash*
- *US Government Bonds*
- *US Corporate Bonds*
- *US Stocks*
- *Foreign Stocks or Bonds*
- *Gold or other precious metals*
- *Other (please specify)*

[ASK IF AT LEAST ONE OPTION WAS CHOSEN IN THE PREVIOUS QUESTION]
What percent of your financial wealth (excluding housing) do you invest in the categories you picked in the previous question? (Please enter a whole number of you invest in a given category. Percent should total 100%)

- *Checking and Savings Account* . . . %
- *Cash* . . . %
- *US Government Bonds* . . . %
- *US Corporate Bonds* . . . %
- *US Stocks* . . . %
- *Foreign Stocks or Bonds* . . . %
- *Gold or other precious metals* . . . %
- *Other (please specify)* . . . %

D.8 Feedback

Please evaluate the following statement: the questions in this survey were clear.

- *Strongly agree*
- *Agree*
- *Neither agree nor disagree*
- *Disagree*
- *Strongly disagree*

[ASK IF "Neither agree nor disagree" or "Disagree" or "Strongly disagree" WAS CHOSEN IN THE PREVIOUS QUESTION]
Please let us know which questions were hard to understand or how we can improve our survey.

E Expert Survey Questions

The text in ALL CAPS, square brackets, and section titles contains technical information that was not shown to respondents. The order of questions presented in this section corresponds to the order of questions in the survey.

E.1 Introduction

Thanks a lot for participating in this study!

This survey will ask up to 4 questions on the U.S. government debt financing, followed by 7 demographic questions.

Key Information

- *You can skip any question you prefer not to answer.*
- *The survey does not allow you to go back to previous pages.*
- *The survey is conducted under a strict policy of no deception.*
- *Participation in the study typically takes 3-5 minutes.*
- *No personally identifying data about you will be collected.*
- Your participation in this study is voluntary. You can withdraw consent or discontinue participation at any time.

For additional details, see this information sheet.

If you agree to participate in the research, please click on the Yes button below.

- *Yes, I wish to participate in this study.*
- *No, I decline the opportunity to participate in this study.*

Introduction.

In this survey, we focus on U.S. federal government debt held by the public—that is, Treasury securities held outside the federal government. We will refer to this measure simply as the national debt.

For your information, the U.S. Treasury Department reported that

- the U.S. federal government debt held by the public---what we call the national debt in this survey---was $30.9 trillion, equivalent to 98% of GDP (annualized) in 2025Q4;
- the U.S. primary deficit was $810 billion, equivalent to 2.7% of GDP in FY2025 (Oct 1, 2024 - Sep 30, 2025).

E.2 Total Level of Debt

[OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
The next question is especially important for our research. Please give it your full attention before answering.

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its current level of debt? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK IF AT LEAST ONE FINANCING METHOD WAS CHOSEN. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In your opinion, what percentage of the U.S. national debt will be handled by each of the options you selected previously (shown below)? (Please enter percentages below. Your answers should add up to 100%. If unsure, please provide your best guess.)

The government will...

- *increase tax revenues through higher tax rates ...%*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates ...%*
- *lower government spending (on goods, services, and social programs) ...%*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars ...%*
- *print money to repay the debt ...%*
- *sell government property (like federal buildings, land, or highways) ...%*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) ...%*
- *default on part of the debt ...%*
- *lower the interest rate on its debt ...%*
- *do something else (please specify) ...%*

[ASK IF AT LEAST ONE FINANCING METHOD WAS CHOSEN]
How confident are you in your answer above?

- *Not at all confident*
- *Slightly confident*
- *Moderately confident*
- *Very confident*
- *Extremely confident*

[ASK IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" WAS CHOSEN IN THE PREVIOUS QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
Previously you chose that "The government will keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)".

Which of the following reasons do you think would allow the government to continue borrowing in this situation? (Pick all that apply)

- *Today's government bond investors believe that future investors will keep purchasing government debt*
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms*
- *The government will force private banks to buy its debt, for example, through financial regulation*
- *Something else (please specify)*

  ☐

[ASK IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" AND IF ONE ALTERNATIVE OPTION WAS CHOSEN AND AT LEAST ONE BUBBLE OPTION WAS CHOSEN. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
Previously, you answered that x% of government debt will be rolled over potentially forever.

Please allocate this x% across the options you selected earlier (listed below), in any proportions you think are appropriate. (Please enter percentages below. Your answers should add up to x%. If unsure, please provide your best guess.)

- *Today's government bond investors believe that future investors will keep purchasing government debt* . . . %
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms* . . . %
- *The government will force private banks to buy its debt, for example, through financial regulation* . . . %
- *Something else (please specify)* . . . %

[ASK IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" AND AT LEAST ONE BUBBLE OPTION WAS CHOSEN]
How confident are you in your answer above?

- *Not at all confident*
- *Slightly confident*
- *Moderately confident*
- *Very confident*
- *Extremely confident*

[ASK IF **ONLY** "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" AND AT LEAST ONE BUBBLE OPTION WAS CHOSEN. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
You answered that the government will roll over all of its debt, potentially forever.

In your opinion, what percentage of the U.S. national debt will be rolled over due to each of the options you selected previously (shown below)?

(Please enter percentages below. Your answers should add up to x%. If unsure, please provide your best guess.)

- *Today's government bond investors believe that future investors will keep purchasing government debt* . . . %
- *Government debt is a safe and liquid asset, allowing the government to borrow at lower interest rates than private firms* . . . %
- *The government will force private banks to buy its debt, for example, through financial regulation* . . . %
- *Something else (please specify)* . . . %

[ASK IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" AND AT LEAST ONE BUBBLE OPTION WAS CHOSEN]
How confident are you in your answer above?

- *Not at all confident*
- *Slightly confident*
- *Moderately confident*
- *Very confident*
- *Extremely confident*

E.3 Demographics Questions

Please tell us some information about yourself.

What is your primary field of research or expertise?

What best describes your primary employment?

- *Academic institution (university or college)*
- *Government or public sector (e.g. ministries, statistical offices, non-central-bank regulators)*
- *Central bank or monetary authority*
- *International organization (e.g. IMF, World Bank, OECD, UN agencies)*
- *Policy think tank*
- *Private sector: finance (e.g. banks, asset management, insurance)*
- *Private sector: non-financial (e.g. consulting, industry, tech)*
- *Independent consultant / self-employed*
- *Other (please specify)*

Have you previously seen or attended a presentation of our paper, "Perceived Budget Constraint of the Government"?

- *Yes*
- *No*

What is your current age?

- *18-24 years old*
- *25-34 years old*
- *35-44 years old*
- *45-54 years old*
- *55-64 years old*
- *65-74 years old*
- *75+ years old*

E.4 Feedback

If you would like to share any comments about the survey, please feel free to do so.

F Supplementary Household Survey Questions

The text in ALL CAPS, square brackets, and section titles contains technical information that was not shown to respondents. The order of questions presented in this section corresponds to the order of questions in the survey.

F.1 Introduction

Thanks a lot for participating in this study!

This survey is about the U.S. national debt. It will ask for your opinion about how the government sustains its debt and a set of demographic questions.

Importantly, we do not expect you to be experts on national debt. There are no right or wrong answers to our questions, as they concern the future, which is uncertain, and your thoughts and predictions reflect your personal views.

Key Information

- *You can skip any question you prefer not to answer.*
- *This survey is conducted under a strict policy of no deception. You will never be lied to during this survey. The instructions explain how the survey works.*
- *Participation in the study typically takes about 5 minutes.*
- *No personally identifying data about you will be collected, and all data and published work resulting from this survey will be fully anonymized and maintain your individual privacy.*
- *Your participation in this study is voluntary. Even if you consent to participate, you can withdraw consent or discontinue participation at any time, but you will receive a payment only if you complete the study.*

For additional details, see this information sheet.

If you agree to participate in the research, please click on the Yes button below.

- *Yes, I wish to participate in this study.*
- *No, I decline the opportunity to participate in this study.*

Introduction.

The United States federal government issues debt to cover some of its financing needs. The holders of this debt are typically households, businesses (including financial firms), and foreigners. Some branches of the U.S. federal government (like the Social Security Trust Fund) also buy U.S. government debt.

In this survey, we're only looking at the debt held by people and institutions outside the U.S. government. We'll call this the national debt held by the public, or just the national debt for short.

We will now ask you a question about the national debt-to-GDP ratio in the United States.

The national debt-to-GDP ratio is the national debt (held by the public) divided by the country's economic output, measured by gross domestic product (GDP). (GDP is the market value of all final goods and services produced by an economy in one year.).

What do you think was the national debt-to-GDP ratio in the end of 2025? (Please enter your answer as a percentage in the text field below).

- National debt-to-GDP in % [ ]

For your information, the U.S. Treasury Department reported that in the fourth quarter of 2025, the national debt of the U.S. federal government (held by the public) was $30.8 trillion—equivalent to 98% of the U.S. Gross Domestic Product (GDP) for 2025Q4 (annualized).

Primary Balances.

To evaluate the government's finances, analysts often focus on the primary balance — the difference between tax revenues and government spending, excluding interest payments. It highlights the structural gap between what the government collects and what it spends on goods, services, and social programs.

A negative primary balance means the government spends more than it collects and must borrow to cover the gap. A positive primary balance allows the government to pay interest and reduce its debt.

For your information, the U.S. Treasury Department reported that in FY2025 (October 1, 2024-September 30, 2025), the U.S. primary balance was negative: –$810 billion, or –2.7% of GDP. In other words, the U.S. federal government spent more than it collected in tax revenues.

F.2 Total Level of Debt

[OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
The next question is especially important for our research. Please give it your full attention before answering.

In your opinion, what will the U.S. government do, both in the near and distant future, to handle its current level of debt? (Select all options you think apply.)

The government will ...

- *increase tax revenues through higher tax rates*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates*
- *lower government spending (on goods, services, and social programs)*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars*
- *print money to repay the debt*
- *sell government property (like federal buildings, land, or highways)*
- *keep borrowing without ever collecting revenues above its spending (on goods, services, and social programs)*
- *default on part of the debt*
- *lower the interest rate on its debt*
- *do something else (please specify)*

[ASK IF AT LEAST ONE FINANCING METHOD WAS CHOSEN. SHOW ONLY OPTIONS CHOSEN IN THE EXTENSIVE QUESTION. OPTIONS ORDER IS RANDOMIZED EXCEPT FOR "DO SOMETHING ELSE," WHICH IS ALWAYS THE LAST ONE]
In your opinion, what percentage of the U.S. national debt will be handled by each of the options you selected previously (shown below)? (Please enter percentages below. Your answers should add up to 100%.)

The government will...

- *increase tax revenues through higher tax rates . . . %*
- *increase tax revenues thanks to economic growth, which will expand the tax base, without needing to increase tax rates . . . %*
- *lower government spending (on goods, services, and social programs) . . . %*
- *allow for inflation, making debt issued today easier to repay with less valuable future dollars . . . %*
- *print money to repay the debt . . . %*
- *sell government property (like federal buildings, land, or highways) . . . %*
- *keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs) . . . %*
- *default on part of the debt . . . %*
- *lower the interest rate on its debt . . . %*
- *do something else (please specify) . . . %*

[ASK IF "keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)" WAS CHOSEN IN THE PREVIOUS QUESTION]
Previously, you selected the option:

"keep borrowing (rolling over the debt), potentially forever, even without collecting revenues above government spending (on goods, services, and social programs)"

Please explain your thinking when choosing this option in your own words (without using AI tools). For example, you can mention any ideas, facts, or experiences you had in mind when you picked this option.

Please type 2-4 sentences, ensuring your answer is in complete sentences.

F.3 Attention Check

The next question is about the following problem. In questionnaires like ours, sometimes some participants do not carefully read the questions and just quickly click through the survey. This means that there are a lot of random answers, which compromise the results of research studies. To show that you read our questions carefully, please choose both "Very strongly interested" and "Not at all interested" as your answer to the below question.

Given the above, how interested are you in economics?

- *Very strongly interested*
- *Very interested*
- *A little bit interested*
- *Almost not interested*
- *Not at all interested*

F.4 Demographics Questions

Now please tell us some information about yourself.

What is your current age?

What state do you currently reside in?

What best describes your current employment situation?

- *Working full-time (for someone or self-employed)*
- *Working part-time (for someone or self-employed)*
- *Not working*

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an independent, or something else?

- *Republican*
- *Democrat*
- *Independent*
- *Something else*

What is the highest level of school you have completed, or the highest degree you have received?

- *Less than high school*
- *High school diploma (or equivalent)*
- *Some college but no degree (including academic, vocational, or occupational programs)*
- *Associate/Junior College degree (including academic, vocational, or occupational programs)*
- *Bachelor's degree (For example: BA, BS)*
- *Post-graduate degree (For example: MA, MS, PhD, MD, JD)*

Which of these describes you more accurately?

- *Male*
- *Female*

F.5 Household Finances

How much income did your household earn in 2025 (before tax)? If you do not know, please estimate and choose an appropriate range.

F.6 Feedback

Please evaluate the following statement: the questions in this survey were clear.

- *Strongly agree*
- *Agree*
- *Neither agree nor disagree*
- *Disagree*
- *Strongly disagree*

[ASK IF "Neither agree nor disagree" or "Disagree" or "Strongly disagree" WAS CHOSEN IN THE PREVIOUS QUESTION]
Please let us know which questions were hard to understand or how we can improve our survey.