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Why do Voters Support Procyclical Fiscal Policies? Experimental Evidence from Latin America*

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Abstract

Governments often pursue procyclical fiscal policies, even though they reduce voter welfare. Is this because voters actually prefer procyclical policies? The analysis in this paper exploits the first individual-level evidence from an original survey of 12,000 respondents in 8 countries across Latin America. Prior research links support for procyclical policy to imperfect voter information but does not explore voter knowledge of the composition of public spending increases and cuts in response to positive and negative shocks. We present experimental evidence that less informed individuals are more supportive of procyclical policy. Previous work also explores how trust in politicians influences fiscal policy preferences. We find that those who *distrust* politicians support acyclical fiscal policies: they are skeptical that they will benefit from higher government spending after positive shocks and be spared the costs of spending cuts after negative shocks. Finally, the evidence supports untested assumptions about voter patience and risk aversion. Patient respondents care more about the future costs of procyclical policy and risk-averse respondents about its higher volatility; support for acyclical policy is correspondingly higher among both groups.

JEL Classification: D72, D82, E02, E62
Keywords: Procyclical fiscal policy, asymmetric information, trust, patience, risk aversion

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1 Introduction

Although governments often pursue procyclical fiscal policies that exaggerate business cycle fluctuations and are welfare-reducing, little is known about voter preferences for these policies. This paper begins to fill this gap with an analysis of individual-level data from Latin America. Developing countries in general, and countries in Latin America in particular, are more likely to increase public spending (or cut taxes) during periods of expansion and to cut expenditures (or raise taxes) during recessions.[1] Experimental and observational evidence from a survey of 12,000 respondents in 8 Latin American countries points to three distortions that weaken support for acyclical or countercyclical policies. Respondents are significantly more likely to support acyclical compared to procyclical policies when: (i) they are informed that the actual composition of government spending is misaligned with their own spending preferences; (ii) they mistrust politicians and lack confidence that politicians will target them with the benefits of extra spending in boom times and shield them from cuts in times of crisis; and (iii) they are patient and risk-averse. The first two findings are not anticipated in the literature. The third, the effects of patience, is a standard conclusion in models of fiscal policy-making. However, the influence of discount rates on voter preferences for procyclical spending is untested.

Governments that engage in procyclical policy respond to positive income shocks by spending more and allocating less to debt repayment. In the face of negative income shocks, they hit a ceiling on debt issuance and are forced to make larger spending cuts, to approve larger tax increases, or to issue more money than they otherwise would have. In contrast, acyclical or countercyclical fiscal policy entails saving fiscal resources after positive economic shocks to allow for greater spending when shocks are negative, for example by issuing debt.[2]

Procyclical fiscal policy therefore has potentially significant welfare implications. First,

[1] See, for example, Frankel, Vegh and Vuletin (2013), Gavin and Perotti (1997), Ilzetzki and Vegh (2008), Kaminsky, Reinhart and Vegh (2004), and Vegh and Vuletin (2015).

[2] In the canonical neoclassical model of debt (Barro, 1979), optimal debt accumulation allows countries to spread the costs of distortionary taxation over time.

to the extent that a fraction of government spending serves as a substitute for private consumption, procyclical policy limits government ability to insure households against negative shocks (Ilzetzki, 2011), and hampers attempts to protect the most vulnerable during crises (Lustig, 2000; Vegh and Vuletin, 2014*b*). In addition, when utility is concave in income, the welfare gains from higher government spending following positive shocks are lower than the welfare losses from lower government spending after negative shocks.[3] Finally, previous research shows that procyclical policy responses and large discretionary policy swings negatively affect economic growth and induce higher output volatility (Fatás and Mihov, 2013, 2003; Woo, 2011).[4]

Imperfect voter information is a canonical explanation of the emergence of cycles in fiscal policies. In Rogoff (1990), electoral budget cycles emerge because governments use greater spending to signal competence to voters who observe government consumption and taxation, but not public investment or government competence. Alesina, Campante and Tabellini (2008) conclude that voters prefer procyclical spending when they are imperfectly informed about how governments distribute revenues between countercyclical debt repayments and procyclical rent-seeking. Acyclical or countercyclical policy requires that governments allocate revenues to debt reduction, but voter concern that governments will exploit their information advantage by engaging in rent-seeking leads imperfectly informed voters to demand procyclical spending instead. We emphasize imperfect information regarding the composition of spending, discussed from various perspectives in Drazen and Eslava (2010), Gavazza and Lizzeri (2009), Mani and Mukand (2007), and Majumdar, Mani and Mukan (2004). Because voter spending preferences may not be aligned with those of government, imperfect voter information about the composition of spending raises the benefits to governments of pursuing procyclical spending. Governments can take advantage of positive shocks

[3]Alternatively, the marginal welfare losses from the deadweight costs of taxation rise with the level of taxation as, for example, Alesina, Campante and Tabellini (2008) assume.

[4]Aghion, Hemous and Kharroubi (2014) assemble firm-level evidence on one mechanism accounting for this relationship: industries that rely more on external finance grow slower when fiscal policy is procyclical. For a more cautionary view on the benefits of countercyclical fiscal policy, see Gordon and Leeper (2005).

to spend more on less visible categories that they most prefer and, after negative shocks, cut spending on less visible categories that they least prefer. Acyclical or countercyclical spending, in contrast, limits the government's capacity to use the gains from positive income shocks to finance their own priorities.

The analysis here contributes to this literature by observing that uninformed voters are heterogeneous with respect to their prior beliefs about whether government spending priorities align with their own. Those who believe that priorities are aligned should favor procyclical spending more than those who believe that priorities are misaligned. Information about the true composition of government spending therefore shifts voters' fiscal policy preferences to the extent that it contradicts their prior beliefs about those priorities.

On average, nearly half (46 percent) of respondents in the survey control group prefer acyclical fiscal policy, 26 percent favor procyclical, and 28 percent are indifferent. This suggests that most are skeptical that government priorities align with their own. The more educated and those who are more familiar with the key decision makers over taxation and spending are likely to be more familiar with the alignment of government priorities with their own. They are also more supportive of acyclical policy.

A survey experiment reveals the effect of true information about government spending priorities on respondents' fiscal policy preferences. Half of the respondents are randomly and accurately informed that increased spending after a positive income shock includes substantial increases on items such as public employment. Evidence from other research reveals that this is among voters' least preferred spending categories. Significantly more treated respondents prefer acyclical spending compared to control respondents who are not informed about the composition of spending. The significant effect of the information treatment suggests that uninformed voters who prefer procyclical spending are overly optimistic about the alignment of government spending priorities with their own.

Trust in politicians is a second, under-explored explanation for voters' fiscal policy preferences. The cyclicality of fiscal policy entails two promises to voters. One is distributional

and concerns which voters will benefit from greater spending and which will suffer from cuts. Individuals who trust politician promises that they will benefit from the first and be protected from the second should therefore be more supportive of procyclical policy. Acyclical or countercyclical policy entails a second promise, to smooth expenditures over time. In this case, though, individuals who trust government promises to save revenue windfalls or pay down government debt in response to positive shocks should be *less* likely to prefer procyclical policy.[5]

The first effect should dominate when most voters mistrust politicians, as in our sample, in which fewer than 20 percent of survey respondents believe that politicians keep their promises. Under these circumstances, as Keefer, Scartascini and Vlaicu (2022) demonstrate, politicians have weak incentives to make promises that provide broad public benefits, such as saving resources today in order to cushion against future shocks. Instead, trust in politicians in low-trust settings is related to promises regarding who will benefit from politicians' distributive decisions. Consistent with this argument, high-trust respondents express greater support for procyclical policy: they are more confident that they will enjoy the benefits of greater spending and be spared the costs of larger cuts in the future.

Prior research on the "voracity" effect (Tornell and Lane, 1999; Talvi and Végh, 1999), analyzing pressures to overspend in good times, also implies that trust affects support for procyclical policy. This work argues that in weak institutional settings, powerful interests have the capacity to extract rents from the rest of society. They are unable to do so cooperatively, though, precisely because institutions are weak. Their inability to cooperate prevents them from ensuring that they will reap the future benefits of countercyclical policy. Hence, when additional fiscal resources become available during boom years, groups prefer

[5]Keefer, Scartascini and Vlaicu (2022) also examine the effects of trust on individuals' fiscal policy preferences. However, their focus is on the composition of government spending, not its timing. They examine voter preferences over transfers and public goods provision that offer immediate benefits, and public investment, where benefits are in the future. Both public goods and public investment spending, but not transfer spending, are vulnerable to the risk that governments are unable to fulfill their promises. However, the benefits from public investment are discounted. Hence, individuals with greater trust in government express greater support for allocating spending towards current public goods provision rather than public investment.

to maximize their access to current resources.

These models have natural implications for the preferences of individual voters. In weaker institutional settings, the relatively few voters who expect to benefit from the struggle among powerful interests express greater trust in politicians and prefer procyclical spending. Data from the survey support this mechanism: those respondents who are likely to feel most strongly represented by powerful groups such as unions and political parties both express greater trust in politicians and are significantly more supportive of procyclical policy.

Finally, a key behavioral trait of voters, their patience, should influence preferences regarding the cyclicality of fiscal policy. The more that individuals discount the future, the greater should be their preferences for greater current spending even at the expense of greater spending cuts in the future. The survey yields the first direct evidence of the impact of patience on fiscal policy preferences: individuals with lower discount rates strongly prefer acyclical policy. We also examine whether risk-seeking individuals are less averse to the greater volatility of procyclical spending and correspondingly less supportive of acyclical policy. Evidence from the survey indicates that this is the case.

Previous empirical research relies on cross-country comparisons. Among the numerous papers that examine information theories of fiscal policy cycles, Shi and Svensson (2006) use country-level data on radio access and media freedom as proxies for voter information and find that electoral budget cycles are more subdued when radio access and media freedom are greater. Dabla-Norris and Allen et al. (2010) present systematic evidence that fiscal discipline is greater in the presence of budget institutions that ensure transparency. The data and experimental approach used here offer the opportunity to explore more subtle issues related to the composition of spending, such as the interaction of greater transparency with voter priors regarding composition.

Both Shi and Svensson (2006), and Alesina, Campante and Tabellini (2008) use cross-country indicators of corruption to capture the influence of rent-seeking on fiscal policy

cycles.[6] Higher levels of rent-seeking are related to lower levels of voter trust in politicians (see, e.g., Keefer and Vlaicu (2008)). This study directly examines the relationship between trust and voters fiscal preferences over the business cycle.

A large empirical literature tests the predictions of common pool theories of fiscal policy (see Persson and Tabellini (2003) for a review). For example, Perotti and Kontopoulos (2002) and Volkerink and de Haan (1999) demonstrate that deficits are lower when political cohesion is greater, consistent with the prediction that cooperation among special interests suppresses procyclical spending.[7] Frankel, Vegh and Vuletin (2013) show that improvements in institutional quality promote countercyclical fiscal policy (see also Cespedes and Velasco (2014)).[8]

The analysis here is based on a survey experiment undertaken in countries with middle and lower ratings of institutional quality in the data used by Frankel, Vegh and Vuletin (2013). These lower ratings are consistent with the low levels of trust expressed on average by survey respondents. We exploit individual data on trust in government to capture the implications of these theories for voter preferences over fiscal policy in weaker institutional settings. One is the prediction that individuals who feel more represented by powerful groups in weaker institutional environments are more supportive of procyclical policy.[9]

The following Section 2 describes the survey experiment, discusses the measurement of voters' fiscal policy preferences over the business cycle, key explanatory variables, and controls. Sections 3 and 4 report the main results and robustness tests, respectively.

[6]Caballero and Yared (2008) also emphasize the role of rent-seeking: politicians confronting low economic volatility and high political uncertainty save too little in order to extract rents today, since they are more uncertain about whether they will have access to them tomorrow. If economic volatility is high, however, and political uncertainty is low, they will save more than is optimal today in order to maximize the option value of rents that they are likely to have access to tomorrow.

[7]In contrast, when interest groups are more polarized the degree of procyclicality tends to increase (Ilzetzki, 2011; Woo, 2009).

[8]Ardanaz and Izquierdo (2022) show that public spending responds asymmetrically to positive and negative income shocks: governments raise current expenditures when shocks are positive and reduces public investment when they are negative. They also find less procyclicality in countries with stronger institutions.

[9]Bursian, Weichenrieder and Zimmer (2015) examine fiscal consolidation after negative income shocks in a group of European countries, all exhibiting higher quality institutions. Among this group of countries, the greater is citizen trust in the national government, the longer the governments are able to delay fiscal consolidations after negative shocks.

2 The Survey

The pre-analysis plan for this study identifies the overarching question of why governments pursue procyclical fiscal policies.[10] Government policy choices might be linked to citizen preferences, leading us to investigate how citizens prefer to allocate public spending over time and, in particular, which citizens prefer sub-optimal procyclical over acyclical fiscal policies.

Data for the analysis are from an original, individual-level survey that was conducted in eight countries in Latin America (Argentina, Brazil, Chile, Colombia, Costa Rica, Guatemala, Mexico, and Peru). We surveyed about 1,500 respondents in each country, for a total of over 12,000 respondents. The survey was implemented online by the Latin American Public Opinion Project (LAPOP) in March 2022 using the online panels created and maintained by Netquest and Offerwise. The main users of these panels are firms that undertake marketing surveys and that rely on responses to make costly decisions regarding how best to satisfy consumer preferences.

2.1 Fiscal Policy Responses to Shocks

The central part of the survey examines respondent preferences over inter-temporal trade-offs in fiscal policy. Respondents are told that Latin American countries experience significant economic volatility, that this has important effects on employment, and that government spending policy can influence these effects. Respondents are then informed about two specific shocks. In the good year, "The economy experiences a positive shock and the government receives 10 percent more in fiscal revenues than it would have otherwise received." Then comes a bad year in which "The economy suffers a negative shock and the government receives 10 percent less in revenues than it would have otherwise received."

On the next screen, respondents are then informed about the government's possible

[10] The study was pre-registered at `https://osf.io/2cnwy`.

policy responses. They read about the two policy options available to governments, exactly described in Table 1. One is acyclical: the government responds to the positive shock by saving all of the additional revenues. As a consequence, employment is 3 percentage points higher than it would have been in the absence of the shock.[11] After the negative shock, the government again responds by leaving its spending unchanged, taking advantage of the savings from the good year; employment drops 3 percentage points below what it would have been in the absence of a shock.

The other option is procyclical. The government spends all of the extra revenues it receives in the good year and does not save anything. Employment is 6 percentage points higher than it would have been in the absence of the shock. After the negative shock, lacking any savings from the good year, the government reduces spending and employment is 6 percentage points less than it would have been in the absence of the shock. Long-term economic performance, measured in terms of final employment, is the same under both options, but employment volatility is lower when policy is acyclical.

2.2 Information Experiment

To investigate whether the misalignment of respondent and government preferences over spending affects respondent preferences for procyclical policy, we inform randomly chosen treated respondents about actual government spending priorities. Treated and control respondents receive the same description of the two possible fiscal policy responses to shocks: procyclical and acyclical options. Control group respondents receive no information about the specific categories of spending that are affected by positive and negative shocks (see Table 1, Panel A).

In contrast, treated respondents receive information about how the government allocates public spending in good and bad years (see Table 1, Panel B). This information draws, in

[11] The positive economic shock increases employment even if government spending remains constant. Under the procyclical policy option, additional government spending boosts employment even more.

Table 1: Description of Fiscal Policy Options in Control and Treatment Groups

Panel A: Control group	
Option 1 (procyclical option)	**Option 2** (acyclical option)
Good year: The government responds to the positive shock by greatly increasing its total spending and saves nothing. Employment ends up being 6% above the level of employment in a year without a shock. Bad year: Because it did not save in the good year, the government cannot borrow to make up for the fall in revenues. Therefore, the government responds to the negative shock by making significant cuts in its total spending. Employment ends up being 6% below the level of employment in a year without a shock.	Good year: The government responds to the positive shock by saving all its additional revenues and keeps its total spending constant. Employment ends up being 3% above the level of employment in a year without a shock. Bad year: Backed by savings from the good year, the government can borrow. Therefore, the government responds to the negative shock by holding its total spending constant. Employment ends up being 3% below the level of employment in a year without a shock.
Panel B: Treatment group	
Option 1 (procyclical option)	**Option 2** (acyclical option)
Good year: The government responds to the positive shock by greatly increasing its spending on wages and salaries of public employees and transfers to poor and middle-class households, and saves nothing. Employment ends up being 6% above the level of employment in a year without a shock. Bad year: Because it did not save in the good year, the government cannot borrow to make up for the fall in income. Therefore, the government responds to the negative shock by making significant cuts in infrastructure investment and maintenance, and in the inputs it requires to provide public services. Employment ends up being 6% below the level of employment in a year without a shock.	Good year: The government responds to the positive shock by saving all its additional revenues and keeps its spending on wages and salaries of public employee and transfers to poor and middle-class households constant. Employment ends up being 3% above the level of employment in a year without shock. Bad year: Backed by savings from the good year, the government can borrow. Therefore, the government responds to the negative shock by not cutting investment spending on infrastructure and its maintenance, and by protecting inputs to provide public services. Employment ends up being 3% below the level of employment in a year without shock.

turn, on the typical policy responses to business cycle fluctuations observed across Latin American countries.[12] In particular, evidence indicates that additional public spending in good years is usually directed towards current expenditures such as public sector wages and transfers to poor and middle class households (Izquierdo, Pessino and Vuletin, 2018; Celasun and Grigoli et al., 2015).[13] In bad years, however, governments tend to cut spending on infrastructure investment and maintenance and other inputs that are needed to provide public services (Ardanaz and Izquierdo, 2022; Easterly and Servén, 2003).[14]

So that they are more accessible to respondents, the vignettes present the temporal trade-offs in fiscal policy in a simple way, but one that nevertheless captures the salient aspects of the theoretical literature. Most importantly, the saving behavior of government portrayed in the vignettes corresponds to the debt management alternatives that are the focus of the literature. In good times, governments can save (reduce debt), or not. In bad times, they can maintain spending by drawing on savings (accumulating debt) or, if they have insufficient savings (too much debt), they must reduce spending. In the theoretical literature, the benefits of government spending appear directly in individual utility functions. However, since survey respondents are not well-informed about how government spending affects their utility, we opted to present the benefits of government spending in terms of employment outcomes.

[12]Procyclical spending polices have usually been the norm across Latin America (Vegh, Lederman and Bennett, 2017; Gavin and Perotti, 1997). While some countries in the region have been able to "graduate" from procyclical spending policy over time (Vegh and Vuletin, 2014*a*), there have also been subsequent policy reversals. In fact, in a sample of 23 Latin America and Caribbean countries between 2000 and 2016, 83 percent present a positive correlation between the cyclical components of GDP and public spending, indicating a procyclical policy stance (Izquierdo, Pessino and Vuletin, 2018).

[13]For example, during the so-called "Golden Decade" of high commodity prices (2003-2013), the growth rate in primary current spending (including items such as wages and salaries and social transfers) averaged 22 percent per year, with some large economies exhibiting average growth rates exceeding 50 percent per year. This trend was reinforced as a result of policy responses to the global financial crisis: about two thirds of the fiscal expansion during 2008/9 observed in Latin America was on average accounted for by increases in two items: public wages/salaries and transfers (Ardanaz and Izquierdo, 2020). On the procyclical behavior of social transfers and education/health expenditures, see for example Galeano et al. (2021) and Arze del Granado, Gupta and Hadjdenberg (2013), respectively.

[14]Ardanaz and Izquierdo (2022) show that when output is below potential, Latin American countries exhibit the largest drop in capital spending in a sample of over 100 emerging and developing countries spanning six different regions.

Fiscal policy influences both the level of employment and its volatility, further increasing the potential complexity of the vignettes and the interpretation of respondent policy preferences. To reduce this complexity, the vignettes are structured to emphasize only volatility, holding constant the average level of employment: final employment at the end of the bad year is the same under both policy options.[15]

To further facilitate respondent comprehension, the policy options were also depicted in a figure that visually captures differences in employment volatility, holding constant the final level of employment.[16] To eliminate the possible influence of the ordering of the options on estimated treatment effects, respondents were randomly assigned one of two versions of the explanatory figure. In one, the more volatile option, capturing the effects of procyclical policy, was on the left and in the other it was on the right (see Appendix Figure A3).

Finally, respondents answered two questions that tested their understanding of the vignettes: which policy option increases spending more in good years and which reduces spending less in bad years.[17] These questions also served a pedagogic function since, after answering each question, respondents received a pop-up message that indicated the right answer. The main results are robust to controlling for the number of questions that respondents correctly answered.

2.3 Voter's Policy Preferences

The key dependent variable is a question respondents answer after reading the two policy options. They indicate on a 5-point scale if they would be much more or more likely (values of one or two) to support the government if it chose Option 1, more or much more likely to support it if it chose Option 2 (values four or five), or if they were indifferent (three).

[15]Specifically, respondents are told that employment is 3 or 6 percent higher or lower than it *would have been* in the absence of a shock. Hence, implicitly, respondents are informed about deviations from trend employment; under both policy options, employment has returned to trend, having risen 3 or 6 points above trend in the good year and fallen 3 or 6 points below trend in the bad year.

[16]See Appendix Figures A1 and A2 for the actual introductory and policy options screenshots.

[17]28.15 percent of participants answered only one question correctly; 58.35 percent answered both questions correctly.

Although the order of the two policy options was randomized across respondents, for purposes of the analysis below higher scores of the dependent variable always refer to a preference for acyclical policy.

The pre-analysis plan specifies two versions of the variable. One includes all answer categories, from one to five. The other is a trichotomous version that aggregates the two answers indicating support for procyclical and the two associated with support for acyclical policies. It takes the value of three if the respondent indicates a preference for acyclical policy (values four or five of the preference variable), two if the respondent is indifferent (a value of three on the preference variable) and one if the respondent prefers procyclical policy (one or two). The 5-point scale variable treats the difference between supporting and strongly supporting a policy the same as the difference between having no preference and supporting a policy. The trichotomous variable makes it possible to focus on the more relevant latter difference.

2.4 Explanatory Variables

Four voter characteristics are at the center of the analysis of voter preferences regarding the cyclicality of fiscal policies: (i) the extent to which voters are informed about the composition of government spending, (ii) their trust in government, and their levels of (iii) patience and (iv) risk aversion.

Respondent information. Respondents who are better informed about the misalignment of government spending preferences with their own are more likely to support acyclical policy, which places greater restrictions on government spending. The main test for this hypothesis is the information experiment described earlier, comparing respondents treated or not treated with information about the composition of government spending increases and cuts during booms and busts. However, additional variables also distinguish respondents who are more and less likely to be aware of the alignment of government spending priorities and their own.

One is respondent education, whether respondents have completed primary (six percent of respondents), secondary (41 percent), or tertiary education (51.6 percent). Two others measure respondent knowledge of how fiscal policy is made. Respondents answered two questions about which actors are responsible for making spending decisions and setting tax policy. The correct answer in both cases and for all countries is the President and the Congress.[18] The specifications below include the sum of correct answers respondents gave to these questions (zero, one, or two). The average respondent answered one question correctly.

Trust in politicians. A standard variable is used to measure trust in politicians: "Thinking about politicians in general, do you believe that it is very common, common, not very common, or not at all common that politicians fulfill their promises?" The pre-analysis plan identifies the two opposing predictions related to this variable that were discussed earlier. High-trust individuals might be more swayed by government promises to target them with high spending after positive shocks and to protect them from spending cuts after negative shocks. This would lead them to support procyclical policies. Alternatively, high-trust individuals might trust governments to use resources saved by acyclical spending after positive shocks to avoid spending cuts after negative shocks, leading them to prefer acyclical spending. The low levels of trust manifested on average by respondents (only 25 percent of respondents said that it was very common or common for politicians to fulfill their promises) indicates that they come from low-trust, weaker institutional settings where politicians are less likely to promise broadly beneficial policies such as acyclical fiscal spending. Hence, trust in government should be associated with support for procyclical policies.

Time preferences and risk aversion. This study uses the unfolding brackets methodology of Falk et al. (2018) to capture respondent discount rates. Respondents answered five questions. Each asked them to express their preference between two options, a certain payment today or a larger payment in three months. If they chose the immediate option in the current question, the next question increased the future payment. If they chose the

[18] Respondents could also choose either one or the other, the Supreme Court, or the International Monetary Fund. Each respondent saw a randomly ordered list of the possible responses.

future option in the current question, the next question reduced the future payment. At the end of the five questions, respondents could end up with any of 32 possible payments. The most patient individuals continued to prefer the future payment, even when it was smallest; the least patient individuals continued to prefer the current payment even when the future option was at its largest. The patience variable, from 1 to 32, is scaled so that respondents with 32 are the most patient. Average patience was 18.4.

Respondents also answered a standard question about risk aversion, whether they generally tend to run risks or to avoid them. Higher scores on the five-point scale indicate a greater willingness to take risk.

Other variables. Government policies and experience with macroeconomic instability vary across countries in the sample, so all estimates control for country fixed effects. Specifications with control variables include gender, age, and the size of the respondent household. They also include income, since lower income respondents may place a higher value on large short-term increases in spending.

Respondent income is based on which of ten possible income ranges respondents chose to describe their monthly family income. In addition, expectations regarding the benefits of public spending could be related to respondent perceptions of their location on the income distribution. Prior to all experimental treatments, respondents indicated on which step of a 10-step ladder they would locate themselves, where the poorest were on the first step and the richest on the tenth.

Other covariates that enter into fully specified estimates are from questions that respondents answered at the end of the survey. These include whether the respondent: (i) is currently not working; (ii) is informal (indicated by respondents who say they are employed and that neither they nor their employer make pension contributions on their behalf); (iii) is retired; (iv) is in a household where anyone receives financial assistance or other subsidy from the government.

The information intervention presented respondents with two side-by-side figures that

graphically depict the employment consequences of the two types of fiscal policies. Respondents were randomly assigned an instrument showing the procyclical figure on the left and the acyclical on the right, or the reverse, depending on the order the policy options were presented to respondents.

The focus of this analysis is on the second of two survey experiments in which the respondents participated.[19] Treatment assignment in the second experiment was independent of assignment in the first. We nevertheless control for treatment status in the first experiment in specifications that contain all covariates.

Appendix Table A1 presents the descriptive statistics of the covariates used in the analysis.[20] Table 2 demonstrates covariate balance across treated and control groups. Across the 24 characteristics, imbalance is observed in only five cases. Trust in politicians is slightly lower among treated respondents (1.81 versus 1.84 on the four point scale). Among treated respondents, 52.7 percent report having completed tertiary education compared to 50.6 percent of control respondents. More treated respondents received government subsidies (16.4 percent versus 15.8 percent). Household size in treated groups is slightly larger (3.98 versus 4.02). Estimated effects of the information treatment on the composition of government spending are invariant to controls for all of these variables.

3 Results

The pre-analysis plan specified several tests. The first asks whether respondents on average prefer acyclical over procycliccal fiscal policy. In fact, as reported earlier, nearly half of control-group respondents said that they supported acyclical policies and only one-quarter supported procyclical policies; the remainder were indifferent.

[19]The first experiment informed some respondents of the regressive nature of VAT to examine whether this information increased their support for progressive tax reforms. See Ardanaz et al. (2022) for details.

[20]See also Appendix for the list of variable definitions.

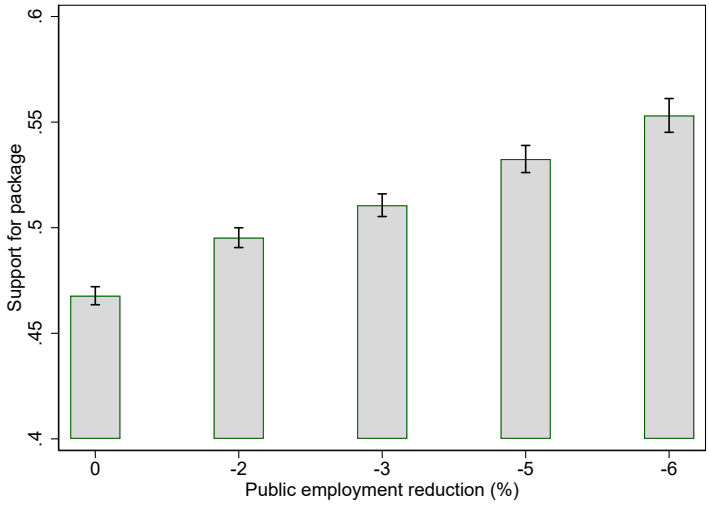
Table 2: Balance Test for the Cyclicality Experiment

	Total sample		Control group		Treatment group		Diff.
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	p-value
Tax and spending policy knowledge	0.951	0.007	0.950	0.010	0.951	0.010	0.932
Primary education level	0.061	0.002	0.064	0.003	0.057	0.003	0.133
Secondary education level	0.411	0.004	0.417	0.006	0.405	0.006	0.174
Tertiary Education	0.516	0.005	0.506	0.006	0.527	0.006	0.027
Trust in politicians	1.827	0.008	1.841	0.011	1.813	0.011	0.078
General trust	2.663	0.006	2.659	0.009	2.666	0.009	0.596
Patience (1-32 scale)	18.362	0.100	18.338	0.141	18.387	0.142	0.807
Risk-seeking (1-5 scale)	3.330	0.009	3.327	0.013	3.334	0.013	0.697
Income decile	5.411	0.028	5.416	0.040	5.407	0.040	0.871
Perception - Income decile	4.792	0.014	4.780	0.019	4.805	0.019	0.351
Female	0.501	0.005	0.503	0.006	0.499	0.006	0.637
Head of household	0.473	0.005	0.469	0.006	0.476	0.006	0.470
Unemployed	0.324	0.004	0.329	0.006	0.319	0.006	0.258
Informal worker	0.191	0.004	0.189	0.005	0.192	0.005	0.686
Retired	0.050	0.002	0.051	0.003	0.048	0.003	0.438
Government subsidies	0.158	0.003	0.164	0.005	0.152	0.005	0.053
Household size	4.020	0.021	3.981	0.029	4.060	0.030	0.061
Age	38.755	0.125	38.838	0.178	38.672	0.176	0.506
Treated in Experiment 1 (VAT)	0.254	0.004	0.256	0.006	0.252	0.006	0.618
Option 1 = Pro-cyclical	0.500	0.005	0.499	0.006	0.501	0.006	0.842
Left-Right political spectrum (10 = right)	5.323	0.020	5.349	0.028	5.297	0.029	0.204
Urgency to reduce deficit	3.271	0.011	3.272	0.015	3.271	0.015	0.964
State tax-collection capacity	3.071	0.011	3.085	0.015	3.058	0.015	0.216
Voted in the last elections	0.837	0.003	0.836	0.005	0.839	0.005	0.560
Correct answers in tests (0-2)	1.449	0.007	1.423	0.009	1.474	0.009	0.000
Observations	12,152		6,080		6,072		

3.1 Information about Government Spending Priorities

The principal findings concern the effects of information about the composition of government spending increases and reductions on fiscal policy preferences. Treated respondents received information about the categories of government spending that would increase in good years and be cut in bad years (see Table 1). In particular, the treatment brought to respondents' attention the fact that governments in Latin America tend to channel increased resources to current expenditure items such as public employment. Such information should affect respondent policy preferences since other research, particularly the conjoint analysis reported in Ardanaz et al. (2023), indicates that public employment is one of the least fa-

Figure 1: Support for Fiscal Adjustment Policy Packages as Function of Public Employment Expenditure Reductions



Notes: This figure compares participant support for different fiscal adjustment policy packages, as reported in Ardanaz et al. (2023). Participants compared policy packages that included different combinations of expenditure cuts in public employment, social transfers, energy subsidies or public infrastructure, and increases in corporate and personal income taxes and the value-added tax. All packages reduced the fiscal deficit by 1% of GDP. Each bar indicates the percentage of participants who expressed a preference for reform packages that included the indicated level of reductions in public employment expenditures (0, 2%, 3%, 5% or 6%) compared to the alternative policy packages they were presented with.

vored categories of public spending across the region.[21] Figure 1 summarizes the attitudes of respondents towards public employment revealed by the conjoint analysis. Comparing the preferences of thousands of respondents across hundreds of different adjustment packages, those that include larger cuts to public employment (and, therefore, smaller adjustments in all other fiscal categories) are substantially more popular than packages with smaller cuts to public employment (and larger adjustments in other categories).[22]

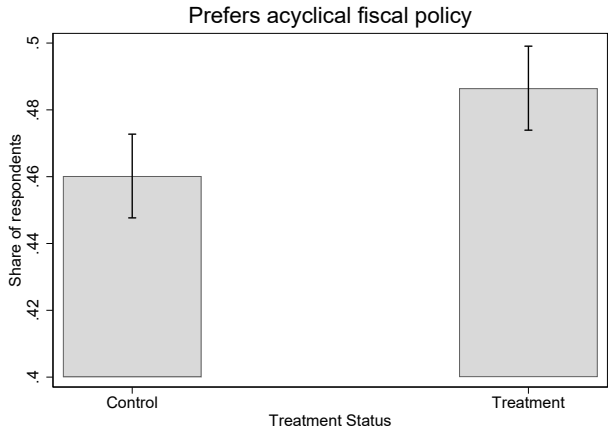
The results in Ardanaz et al. (2023) support the conclusion that the information treatment effectively informed the average respondent of a conflict between her spending priori-

[21] Ardanaz et al. (2023) implement a conjoint experiment among 8,000 individuals in four Latin American countries. The experiment elicits the combination of budget cuts and tax increases that respondents would most prefer that governments implement in response to a fiscal crisis. Respondents compared 10 pairs of policy options, each of them exactly sufficient to reduce the fiscal deficit by 1 percent of GDP. The seven options were to raise taxes (corporate or personal income taxes or the value-added tax), or reduce spending (on public employment, energy subsidies, social assistance, or public investment).

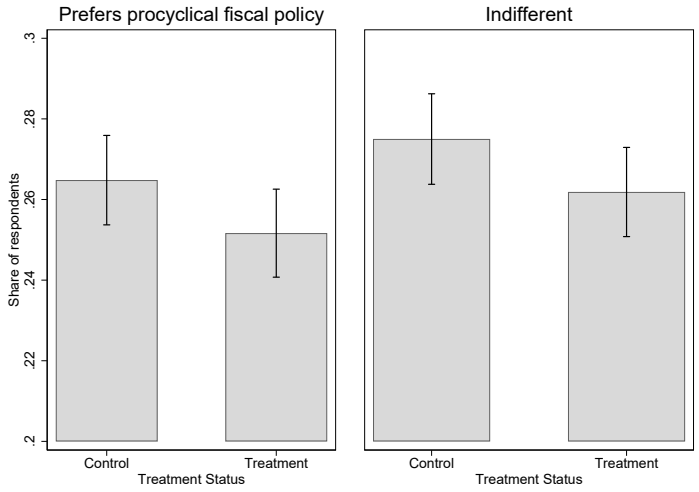
[22] Participants in the survey analyzed by Ardanaz et al. (2023) are drawn from four of the countries we analyze here, using the same online panel (though with no overlap in respondents between the two surveys).

ties and those of the government. Hence, the treatment should lead respondents to be *more* supportive of acyclical or countercyclical spending, which restricts increases in government spending during good times.

Figure 2: Fiscal Policy Preferences by Treatment Status



(a) Acyclical



(b) Procyclical and Indifferent

Notes: This figure reports the share of participants that answered preferring acyclical policy (in Panel a), procyclical, or being indifferent between both (Panel b), by treatment status in the spending-composition experiment. Respondents are asked to indicate on a 5 point scale how likely it is that they support a government that chooses procyclical over acyclical spending responses, where 1 indicates strong support for the procyclical option, and 5 strong support for the acyclical option. In the figure, Procyclical preference is defined as choosing values one or two, indifferent as choosing value three, and acyclical as choosing values four or five on the 5 point scale. We present point estimates and 95% confidence intervals.

Following the pre-analysis plan, Figure 2 summarizes the average differences across respondents in all countries with respect to their preferences for (or indifference between) procyclical and acyclical policies. A significantly larger fraction of respondents who were informed about the composition of spending increases and cuts prefer *acyclical* fiscal policy: 48.6 percent versus 46.0 percent. The increase is drawn evenly from both the indifferent and procyclical groups, both of which are 1.3 percentage points smaller among treated respondents: 26.2 percent of treated respondents are indifferent, compared to 27.5 percent of control respondents, and 25.2 percent of treated respondents continue to favor procyclical policies, compared to 26.5 percent of control respondents.[23]

The following specification from the pre-analysis plan estimates whether the treatment effect is significant controlling for country fixed effects and for all controls. The main discussion reports the results from a linear regression model (OLS estimates), but the robustness section reports results from probit estimations; the pre-analysis plan called for both.

$$Y_{ij} = \alpha + \beta Treated_{ij} + \lambda' \mathbf{X}_{ij} + \mu_j + \epsilon_{ij} \tag{1}$$

where i =respondent, j =country, and $\mathbf{X}_{ij}$ captures different individual level control variables, and μ_j captures country fixed effects. Table 3 presents results from OLS specifications.

The dependent variable in the specifications in columns 1 and 2 of Table 3 is the 5-point version of respondents' answer to the question of whether they would be more likely to support a government that chose procyclical policies (one or two) or acyclical policies (four or five), or whether they were indifferent. The first specification controls only for country fixed effects, ensuring that results are not driven by unobserved cross-country characteristics that might influence treatment responses. The second specification includes a complete

[23]We would expect respondents with weaker priors about which policy is better — that is, indifferent respondents — to be more responsive to the information treatment. The results of the experiment are consistent with this. For example, the treatment might have persuaded 1.3 percent of respondents who would have otherwise preferred the procyclical policy to be simply indifferent, and it could have persuaded 2.6 percent of respondents who would have been indifferent in the absence of the treatment to favor countercyclical policy. The net effect of this distribution of effects would be a decline of 1.3 percent each in the fraction of indifferent and procyclical respondents and an increase of 2.6 percent in the fraction of countercyclical respondents.

Table 3: Average Treatment Effects on Fiscal Policy Preferences

	5-Point Scale Outcome		Trichotomous Outcome	
	(1)	(2)	(3)	(4)
Treated (Spending Composition)	0.060**	0.060**	0.039**	0.040**
	(0.022)	(0.021)	(0.015)	(0.014)
Constant	3.283***	3.311***	2.196***	2.123***
	(0.011)	(0.124)	(0.007)	(0.074)
Observations	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes
Dep Var Mean	3.31	3.31	2.22	2.22
Dep Var SD	1.22	1.22	.828	.828

Notes: This table presents estimates of the Average Treatment Effect of the spending-composition experiment. The first two columns use the 5-Point Scale preference measure as dependent variable (where 1 indicates a strong preference for procyclical policy, 3 being indifferent, and 5 a strong preference for acyclical policy). The dependent variable in columns (3) and (4) is the trichotomous version, where the first two options (procyclical preference) are grouped in one value (1), the third option (indifference) is codified as 2, and the last two options (acyclical preference) are grouped in the the value of 3. Columns (2) and (4) control for all variables in Table A1, except the measures of trust, patience, risk-seeking, and the last 5 variables (extended controls). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

set of controls to increase the precision of the estimates. The estimated treatment effect is highly significant, consistent with the differences depicted in Figure 2. Columns 3 and 4 repeat columns 1 and 2 but utilize the trichotomous dependent variable, following the specifications outlined in the pre-analysis plan. The results are equally strong. Treatment effects are invariant to all controls.

Appendix Table A2 reports the marginal effects of the treatment estimated from the probit regressions. These match the magnitude of the treatment effect described earlier in Figure 2. Looking at the estimates using the trichotomous outcome variable, the treated were 2.2 percentage points more likely to support the acyclical policy option, and 1.8 percentage points less likely to support the procyclical option.[24]

[24]It is straightforward to generate these percentage shifts from the OLS regressions in Table 3. Assume that the probit estimates emerged because of the following shifts: 2.2 percent of treated respondents who would otherwise have been indifferent instead support acyclical policy; 1.8 percent percent who would otherwise have supported procyclical policy were instead indifferent. Hence, the percent of treated respondents

The specifications with a full set of covariates include estimates of the relationship between education and fiscal policy knowledge variables and support for acyclical fiscal policy. Knowledgeable individuals may be more aware that government spending priorities do not coincide with their own and therefore prefer acyclical policy. Columns 1 in Appendix Tables A3 and A4 report all covariate estimates from columns 2 and 4 of Table 3. Coefficient estimates strongly support the conjecture: both the more educated and more knowledgeable support acyclical policy.

Among those who answered one of the two fiscal policy questions correctly, the increase in support for acyclical policy (.156 on the 5-point scale, .098 for the trichotomous outcome) was approximately three times as large as the impact of exposure to the information treatment (.051 and .033, respectively; see Appendix Table A5). The more educated are also more likely to support acyclical fiscal policy. The specification controls for those who completed primary, secondary, or tertiary education; the omitted category is those who did not complete primary education. The coefficients on secondary and tertiary education are significant and several times larger than the coefficient on primary education and point to effects on support for acyclical policy of similar magnitudes as for the information treatment.

3.2 Trust in Politicians

The second claim is that individuals with greater trust in politicians are *more* likely to support procyclical spending in the low-trust settings of respondents. The evidence is consistent with this claim and rejects the hypothesis that high trust respondents prefer acyclical policy.

Columns 1 and 2 of Table 4 examine the relationship of trust in politicians to the 5-point outcome variable, and columns 3 and 4 to the trichotomous version that is specified in the pre-analysis plan. Columns 1 and 3 control only for country fixed effects and the treatment status of respondents. In these specifications, the belief that politicians keep their

who reported that they were indifferent dropped by .4 percentage points. These shifts raise the average score of the trichotomous variable by $(0.022 \times 3 - .004 \times 2 - .018 \times 1 = .04)$, precisely the coefficient in columns three and four of Table 3.

Table 4: Correlations Between Trust Measures and Fiscal Policy Preferences

	5-Point Scale Outcome		Trichotomous Outcome	
	(1)	(2)	(3)	(4)
Treated (Spending Composition)	0.058**	0.059**	0.038**	0.039**
	(0.022)	(0.022)	(0.015)	(0.015)
Trust in politicians	-0.070***	-0.053**	-0.042***	-0.030**
	(0.016)	(0.017)	(0.010)	(0.010)
General trust		0.021		0.013
		(0.015)		(0.010)
Observations	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes
Dep Var Mean	3.31	3.31	2.22	2.22
Dep Var SD	1.22	1.22	.828	.828

Notes: This table presents estimates of the correlations between trust in politicians, general trust, and fiscal policy preferences, controlling for treatment status in the spending composition experiment. Trust in politicians is a 4-point scale measure taking the value of 1 if the individuals perceives that politicians never keep their promises, and 4 if it is very likely that they keep them. General trust is also 4-point scale, where 1 indicates that most people are not trustworthy at all, and 4 that they are very trustworthy. Columns (2) and (4) control for all variables in Table A1, except the measures of patience, risk-seeking, and the last 5 variables (extended controls). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

promises has a significant, negative correlation with preferences for acyclical policy. The effect is comparable in size to the impact of the information treatment. Results are equally significant using the trichotomous outcome variable.

Columns 2 and 4 present the results of the specification with all controls. All covariate estimates are presented in columns 2 of Tables A3 and A4. The specifications are the same as in columns 2 and 4 of Table 3. The large battery of controls reduces the magnitudes of the coefficient on trust in politicians, consistent with the difficulty of disentangling trust in politicians from the influence of other covariates that influence trust, including education, income, age, and, especially, generalized trust. Nevertheless, trust in politicians is significantly negative in all specifications in Table 4, including one of those that controls for generalized trust.

The results reject the null hypothesis that trust in politicians reduces support for procyclical policy in weaker institutional settings. On the contrary, the difference in support for procyclical policy among those with the greatest trust in politicians (four on the 4-point scale) and the least (one on the scale) is approximately .16 (the difference between -.21 and -.053), nearly three times the magnitude of the information treatment effect (.059).

Earlier theoretical contributions by Velasco (1999) and Tornell and Lane (1999) conclude that in weaker institutional environments, where mistrust prevails, powerful interests prefer procyclical spending. One can infer from their analysis that individuals who feel more represented by powerful groups should also trust politicians more and prefer procyclical spending. The survey data yield evidence that supports both conjectures.

Respondents were asked if they felt represented by a political party or union. If they said yes to either, they were asked how strongly represented they felt, on a scale of one to five. Variables for political party representation and union representation were created that take a value of zero if respondents replied that they did not feel represented by a party/union, and a value of one to five, depending on how represented they indicated they felt if they answered yes.

These two variables are significantly, positively correlated with trust in politicians. Table 5 reports coefficient estimates from regressions of each of these variables on respondent trust in politicians, controlling for fixed effects in one specification and fixed effects and generalized trust in the other. In both specifications, both variables are highly significantly correlated with trust in politicians; the magnitude of the association hardly changes when generalized trust is introduced as a control.

Table 6 reports regression results that replicate the specifications in Table 4, but substitute political representation or union representation for trust in politicians. Columns 1, 3, 5, and 7 report the bivariate specifications, controlling only for country fixed effects, for each of the new independent variables, and for both the continuous and trichotomous dependent variables. Columns 2, 4, 6, and 8 report the results controlling for all covariates, including

Table 5: Correlation Between Political Representation and Trust in Politicians

	Dependent Variable: Trust in Politicians			
	(1)	(2)	(3)	(4)
Pol Party Representation (0-5)	0.070***	0.060***		
	(0.008)	(0.006)		
Union Representation (0-5)			0.080***	0.068***
			(0.010)	(0.009)
General trust		0.271***		0.275***
		(0.013)		(0.014)
Observations	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes
General trust as control	No	Yes	No	Yes
Dep Var Mean	1.83	1.83	1.83	1.83
Dep Var S.D.	.861	.861	.861	.861

Notes: This table presents estimates of the correlation between measures of feeling represented by a political party, or a union, and trust in politicians (4-point scale variable). "Pol Party Representation" (and "Union Representation", analogously) takes the value of 0 if the participant doesn't feel represented by a party (union), and 1 to 5 depending on how much she feels represented by that party (union). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

generalized trust. In all specifications, those who feel more represented by unions or political parties are significantly more opposed to acyclical policy.

3.3 Patience and Risk Aversion

Finally, we investigate whether more patient and risk-averse individuals prefer acyclical fiscal policies. The pre-analysis plan specifies the same set of covariates and estimation approach as in Table 4. Table 7 uses these specifications, substituting patience for trust in politicians. Columns 1 and 3 examine the bivariate specification with the continuous and trichotomous dependent variables; columns 2 and 4 include the same covariates as in previous tables. In all estimates, more patient individuals are much more likely to support acyclical policy. A one standard deviation increase in patience (11 points on the 32 point scale) is associated with a slightly larger increase in support for acyclical policy (.08 to .10 in columns 1 and 2)

Table 6: Correlation Between Political Representation and Fiscal Policy Preferences

	5-Point Scale Outcome				Trichotomous Outcome			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Pol Party Representation (0-5)	-0.022**	-0.018*			-0.017**	-0.014**		
	(0.008)	(0.009)			(0.005)	(0.006)		
Union Representation (0-5)			-0.048***	-0.040***			-0.031***	-0.025**
			(0.010)	(0.011)			(0.007)	(0.008)
Observations	12,152	12,152	12,152	12,152	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Dep Var Mean	3.31	3.31	3.31	3.31	2.22	2.22	2.22	2.22
Dep Var S.D.	1.22	1.22	1.22	1.22	.828	.828	.828	.828

Notes: This table presents estimates of the correlation between measures of feeling represented by a political party, or a union, and fiscal policy preferences. "Pol Party Representation" (and "Union Representation", analogously) takes the value of 0 if the participant doesn't feel represented by a party (union), and 1 to 5 depending on how much she feels represented by that party (union). Columns (2), (4), (6), and (8) control for general trust, and all variables in Table A1, except the measures of trust in politicians, patience, risk-seeking, and the last 5 variables (extended controls). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

as exposure to the information treatment (.06).

Table 7: Correlation Between Patience and Fiscal policy Preferences

	5-Point Scale Outcome		Trichotomous Outcome	
	(1)	(2)	(3)	(4)
Treated (Spending Composition)	0.059**	0.059**	0.039**	0.039**
	(0.021)	(0.021)	(0.014)	(0.014)
Patience (1-32 scale)	0.009***	0.006***	0.006***	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)
Trust in politicians		-0.050**		-0.028**
		(0.016)		(0.010)
General trust		0.018		0.011
		(0.015)		(0.010)
Observations	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes
Dep Var Mean	3.31	3.31	2.22	2.22
Dep Var SD	1.22	1.22	.828	.828

Notes: This table presents estimates of the correlation between patience and preference for acyclical policy, controlling for treatment status in the spending composition experiment. Patience is a 32-point scale variable, where higher values indicate higher levels of patience. Columns (2) and (4) additionally control for trust in politicians, general trust, and all variables in Table A1, except the measure of risk-seeking, and the last 5 variables (extended controls). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

Risk-seeking respondents should be less attracted to the lower volatility induced by acyclical fiscal policy. To see if this is the case, Table 8 reports estimation results from specifications like those in Table 4, substituting the measure of risk-taking (higher values indicate a greater willingness to run risks) for trust in politicians. Risk aversion and patience are unlikely to be independent behavioral traits. Hence, the covariates in the fully specified regressions in columns 2 and 4 also control for patience.

Table 8: Correlation Between Risk-Aversion and Fiscal Policy Preferences

	5-Point Scale Outcome		Trichotomous Outcome	
	(1)	(2)	(3)	(4)
Treated (Spending Composition)	0.060**	0.059**	0.040**	0.039**
	(0.021)	(0.021)	(0.014)	(0.014)
Risk-seeking (1-5 scale)	-0.046**	-0.044**	-0.033***	-0.031**
	(0.015)	(0.017)	(0.009)	(0.011)
Patience (1-32 scale)		0.007***		0.004***
		(0.001)		(0.001)
Trust in politicians		-0.048**		-0.026**
		(0.017)		(0.010)
General trust		0.021		0.013
		(0.015)		(0.010)
Observations	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes
Dep Var Mean	3.31	3.31	2.22	2.22
Dep Var SD	1.22	1.22	.828	.828

Notes: This table presents estimates of the correlation between risk-seeking and preference for acyclical policy, controlling for treatment status in the spending composition experiment. Risk-seeking is a 5-point scale variable, where 1 indicates that the person avoids risk, and 5 that she is very willing to take risks. Columns (2) and (4) additionally control for trust in politicians, general trust, patience, and all variables in Table A1, except the and the last 5 (extended controls). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

The risk-taking coefficients in columns 1 and 2 are significant and negative. A one-standard deviation increase in risk-taking is associated with a .048 decline in support for acyclical fiscal policies, slightly smaller than the magnitude of the effect of exposure to

the information treatment. Column 2 estimates make clear that patience and risk-taking are separate phenomena: patience continues to have a positive association with support for acyclical policy, and risk-taking a negative one. Results are robust to the use of the trichotomous dependent variable in columns 3 and 4.

The earlier specifications do not simultaneously account for the information treatment, trust in politicians, patience, and risk-taking. These might all capture the same underlying respondent characteristics. However, the specifications in columns 2 and 4 in Table 8 include all of these variables. The results reported earlier are entirely robust: the information treatment and patience are positively and significantly associated with support for acyclical policy, while the coefficients on trust in politicians and risk-taking are negative and significant.

Many other covariates appear in the full specifications reported in the earlier tables (see Appendix Tables A3 and A4). Four are significant across specifications. Respondents who report higher household incomes (who placed their households in higher income brackets at the end of the survey) are significantly more likely to prefer acyclical spending, consistent with the greater importance of government spending for the welfare of poorer households.[25] The unemployed were also more likely to support acyclical policy, though the effect is statistically and economically small. Older respondent and respondents with larger households, though, were much more likely to support procyclical over acyclical fiscal policy.

4 Robustness

The estimated effects of the information treatment are unbiased and robust. However, the associations among trust, patience, and education and fiscal knowledge could be driven by

[25]Respondent perceptions of their place in the income distribution have the opposite effect, however, although it is economically and statistically less significant. Respondents identified which step on the income distribution staircase to which their household belonged. The higher the step, the lower respondent support for acyclical policy. The greatest support for acyclical policy therefore emerged among those respondents who categorized themselves as lower down in the income distribution at the beginning of the survey and, at the end, located their households in the higher income brackets.

unobserved respondent characteristics or the choice of particular specifications. This section demonstrates the robustness of these associations to plausible alternative explanations for the correlations reported above.

First, views about fiscal policy may also be influenced by behavioral and ideological characteristics of respondents that are not captured in the full specifications reported earlier, such as interest in fiscal affairs. The base controls include knowledge of how fiscal policy is made, but another indicator of interest is the number of correct answers respondents gave to the two questions testing comprehension of the policy alternatives. Those who are more interested in fiscal policy should exert greater effort to answer the questions correctly. The number of correct answers to the comprehension questions is significantly and positively related to support for acyclical policies, just like knowledge of fiscal policy, but does not affect estimates of the other correlates. (See columns 2 and 4 of Appendix Table A5; Columns 1 and 3 reproduce columns 5 of Tables A3 and A4.)

Second, the earlier results are also not the result of omitting respondent concerns about deficit spending. Respondents who have a greater sense of urgency regarding the need to reduce fiscal deficits strongly prefer acyclical policy. However, the inclusion of this control has little effect on key coefficients of interest (see Table A5).[26]

In addition, individuals who are more politically engaged—who indicate in the survey that they voted in the last election—may be more likely to have an opinion about fiscal policy and less likely to be indifferent between procyclical and acyclical policies. The politically engaged might also have more trust in politicians and exhibit greater patience. However, respondents who voted in the last election do not significantly differ in their fiscal policy preferences from those who did not.

Ideology might also drive spurious correlations among key variables of interest. Respon-

[26] All respondents read a paragraph in the first part of the survey that explained that there is considerable debate about how the government should manage public finances to ensure macroeconomic stability and about how to manage the budget deficit and public debt. Both of these were defined. Respondents then indicated whether they agreed or disagreed with the statement that policy measures to reduce the deficit and debt could not wait.

dents who place themselves on the left of the political spectrum might be more sympathetic to greater short-run spending under procyclical policy and, also, to have more trust in government. The survey solicited respondents' ideology by asking them to locate themselves on an 11-point scale, from left to center to right. Left-leaning respondents are slightly *more* likely to prefer acyclical policy, but the effect is not robust.

Finally, those who are more skeptical of state capacity to conduct fiscal policy might be less trusting of government and more sympathetic to acyclical policy. Beliefs about state (or fiscal) capacity are based on respondent answers to a question asking how capable is the tax administration to collect taxes from those with tax obligations (very capable, capable, somewhat capable, poorly capable, incapable). The estimated coefficient is insignificant.

5 Conclusions

Original survey data from Latin America document determinants of voter support for procyclical fiscal policy, including some not anticipated by earlier literature. Existing work, supported by cross-country empirical analyses, concludes that greater transparency in fiscal policy moderates budget cycles by making it more difficult for governments to obscure rent-seeking behavior from better informed voters. This paper also finds that information leads to greater support for acyclical spending, but the underlying mechanism is different: individuals who discover that the composition of spending does not align with their priorities are more willing to curb procyclical behavior by governments. Observational data support this conclusion: more educated individuals and respondents who are better informed about fiscal policy decision making processes are also more supportive of acyclical policy. These results imply that the more individuals believe that government spending decisions align with their preferences, the more supportive they are likely to be of procyclical policies.

Support for acyclical policy is *lower* among respondents who express greater trust in politicians. In weaker institutional settings, in which most respondents distrust government,

governments are unlikely to promise to save resources today to protect all citizens from negative shocks in the future. Instead, in these settings they are likely to make promises to groups of supporters that they will benefit from the higher spending during booms associated with procyclical policy and protected from larger spending cuts during busts. In fact, among the minority of respondents who trust politician promises, support for procyclical policy is significantly higher.

This logic is consistent with seminal work that attributes procyclical policies to the over-exploitation of the fiscal common pool by powerful interests in countries with weak institutions. Mistrust prevails in these settings, as well. However, individuals who are connected to the powerful interests are more likely to benefit from the procyclical policies supported by these interests. We uncover evidence for this: individuals who say they feel represented by unions or political parties are more likely to express trust in government and to support governments who engage in procyclical policy.

Finally, behavioral characteristics of voters should influence their fiscal policy preferences. Patient voters should value future gains from countercyclical policy more highly; risk-averse voters should value the lower volatility of acyclical policy. The data confirm both expectations.

The analysis has implications for both policy and future research. With regard to policy, it points to the double-edged nature of transparency reforms. In the case of procyclical fiscal policy, however, we show that transparency about spending discourages procyclical policy when government spending is *misaligned* with citizen preferences. Since misaligned spending is a high price to pay for acyclical policy, transparency about spending composition should also be accompanied by transparency about debt management, which increases support for acyclical policy even when spending composition is aligned with voter preferences (Alesina, Campante and Tabellini, 2008). Greater transparency about government inter-termporal decisions will also build citizen trust in the government promise that underlies acyclical policy: that government will increase assets after positive shocks to defray expenditure

reductions when negative shocks occur. To make such promises more credible, transparency reforms could be accompanied by the strengthening of rules-based fiscal frameworks that formally require fiscal revenues to be saved after positive shocks so that they are available after negative shocks.

The results also point to several key questions for future work. First, the information experiment does not capture government adjustments to public revelations about the composition of spending. Does greater public information about composition lead government to shift composition and, by making spending more attractive to citizens, does this shift increase the frequency of procyclical spending? Second, in stronger institutional settings and where trust in politicians is high, do the competing effects of trust on preferences for cyclical policy cancel out or do they reverse, such that high trust individuals prefer more acyclical or countercyclical spending?

Third, most individuals in the sample prefer acyclical spending and yet policy is often procyclical. The present study cannot fully explain this, but yields a conjecture that future work should explore. On the one hand, in weaker institutional settings characterized by low trust and skepticism about government policy, individuals assume that spending is misaligned with their interests and prefer the spending curbs associated with acyclical policy. On the other hand, in such environments governments have greater freedom to pursue policies that are at odds with voter preferences; these include procyclical spending.

Finally, the analysis is relevant for other policy decisions where voters must make choices about the inter-temporal distribution of costs and benefits, whether in the context of pension reform or climate change. Does trust in politicians have an asymmetric effect across strong and weak institutional settings, such that high-trust individuals in weak institutional settings prefer less efficient policies because they expect to benefit more from them? Does greater transparency about the actual distribution of benefits and costs reduce or increase support for reform? To what extent do high voter discount rates slow reform? Efforts to address a wide range of policy challenges may depend on the answers to these questions.

References

Aghion, Philippe, David Hemous and Enisse Kharroubi. 2014. "Cyclical fiscal policy, credit constraints, and industry growth." *Journal of Monetary Economics* 62:41–58.

Alesina, Alberto, Filipe R. Campante and Guido Tabellini. 2008. "Why is Fiscal Policy Often Procyclical?" *Journal of the European Economic Association* 6(5):1006–1036.

Ardanaz, Martin and Alejandro Izquierdo. 2020. "Can Latin America Afford to Fight Covid-19?" *Project Syndicate* April 7th.

Ardanaz, Martin and Alejandro Izquierdo. 2022. "Current expenditure upswings in good times and public investment downswings in bad times? New evidence from developing countries." *Journal of Comparative Economics* 50(1):118–134.

Ardanaz, Martin, Evelyne Hübscher, Philip Keefer and Thomas Sattler. 2023. "Preferences over the composition of fiscal adjustment: a conjoint experiment." *Inter-American Development Bank. Unpublished manuscript* .

Ardanaz, Martin, Philip Keefer, Evelyne Hübscher and Thomas Sattler. 2022. "Policy Misperceptions, Information, and the Demand for Redistributive Tax Reform: Experimental Evidence from Latin American Countries." *Inter-American Development Bank. Working Paper Series* IDB-WP-1385.

Arze del Granado, Javier, Sanjeev Gupta and Alejandro Hadjdenberg. 2013. "Is Social Spending Procyclical? Evidence for Developing Countries." *World Development* 42:16–27.

Barro, Robert. 1979. "On the determination of the public debt." *Journal of Political Economy* 87:940–71.

Bursian, Dirk, Alfons J. Weichenrieder and Jochen Zimmer. 2015. "Trust in government and fiscal adjustments." *International Tax and Public Finance* 22:663–662.

Caballero, Ricardo J. and Pierre Yared. 2008. "Future rent-seeking and current public savings." *Journal of International Economics* 82:124–136.

Celasun, Oya and Francesco Grigoli et al. 2015. "Fiscal policy in Latin America: Lessons and legacies of the global financial crisis." *IMF Staff Discussion Note* SDN/15/06.

Cespedes, Luis and Andres Velasco. 2014. "Was this time different? Fiscal policy in commodity replublics." *Journal of Development Economics* 106:92–106.

Dabla-Norris, Era and Richard Allen et al. 2010. "Budget Institutions and Fiscal Performance in Low-Income Countries." *IMF Workin Paper* WP/10/80.

Drazen, Allan and Marcela Eslava. 2010. "Electoral Manipulation via Expenditure Composition: Theory and Evidence." *Journal of Development Economics* 92(1):39–52.

Easterly, William and Luis Servén. 2003. *The Limits of Stabilization : Infrastructure, Public Deficits, and Growth in Latin America*. The World Bank.
URL: *https://ideas.repec.org/b/wbk/wbpubs/14456.html*

Falk, A., A. Becker, T.J. Dohmen, D. Huffman and U. Sunde. 2018. "Global Evidence on Economic Preferences." *Quarterly Journal of Economics* 133(4):1645–1692.

Fatás, Antonio and Ilian Mihov. 2003. "The case for restricting fiscal policy discretion." *The Quarterly Journal of Economics* 118(4):1419–1447.

Fatás, Antonio and Ilian Mihov. 2013. "Policy Volatility, Institutions, and Economic Growth." *The Review of Economics and Statistics* 95(2):362–376.

Frankel, Jeffrey A., Carlos A. Vegh and Guillermo Vuletin. 2013. "On graduation from fiscal procyclicality." *Journal of Development Economics* 100(1):32–47.

Galeano, Luciana, Alejandro Izquierdo, Jorge P. Puig, Carlos A. Vegh and Guillermo Vuletin. 2021. Can Automatic Government Spending Be Procyclical? NBER Working Papers 28521

National Bureau of Economic Research, Inc.
URL: *https://ideas.repec.org/p/nbr/nberwo/28521.html*

Gavazza, Alessandro and Alessandro Lizzeri. 2009. "Transparency and Economic Policy." *Review of Economic Studies* 76(3):1023–48.

Gavin, Michael and Roberto Perotti. 1997. "Fiscal Policy in Latin America." *NBER Macroeconomics Annual* 12:11–61.

Gordon, David B. and Eric M. Leeper. 2005. "Are countercyclical fiscal policies counterproductive?" *NBER Working Paper* 11869.

Ilzetzki, Ethan. 2011. "Rent seeking distortions and fiscal procyclicality." *Journal of Development Economics* 96(1):30–46.

Ilzetzki, Ethan and Carlos A. Vegh. 2008. "Procyclical Fiscal Policy in Developing Countries: Truth or Fiction?" *NBER Working Paper* 14191.

Izquierdo, Alejandro, Carola Pessino and Guillermo Vuletin. 2018. *Better Spending for Better Lives: How Latin America and the Caribbean Can Do More with Less*. Inter-American Development Bank.

Kaminsky, Graciela, Karen Reinhart and Carlos Vegh. 2004. "When it Rains it Pours: Procyclical Capital Flows and Macroeconomic Policies." *NBER Macroeconomics Annual* 19:11–53.

Keefer, Philip, Carlos Scartascini and Razvan Vlaicu. 2022. "Demand-side determinants of public spending allocations: Voter trust, risk and time preferences." *Journal of Public Economics* 206(February):Article 104579.

Keefer, Philip and Razvan Vlaicu. 2008. "Democracy, Credibility and Clientelism." *Journal of Law, Economics and Organization* 24(2):371–406.

Lustig, Nora. 2000. "Crises and the Poor: Socially Responsible Macroeconomics." *Economia* 1(1).

Majumdar, Sumon, Anandi Mani and Sharun W. Mukan. 2004. "Politics, information and the urban bias." *Journal of Development Economics* 75(1):137–165.

Mani, Anandi and Sharun Mukand. 2007. "Democracy, Visibility and Public Good Provision." *Journal of Development Economics* 22(1):506–529.

Perotti, Roberto and Yianos Kontopoulos. 2002. "Fragmented fiscal policy." *Journal of Public Economics* 86(2):191–222.

Persson, Torsten and Guido Tabellini. 2003. *The Economic Effects of Constitutions*. MIT Press.

Rogoff, Kenneth. 1990. "Equilibrium political budget cycles." *American Economic Review* 80:21–36.

Shi, Min and Jakob Svensson. 2006. "Political budget cycles: Do they differ across countries and why?" *Journal of Public Economics* 90:1367–1389.

Talvi, Ernesto and Carlos A. Végh. 1999. "Tax base variability and procyclical fiscal policy in developing countries." *Journal of Development Economics* 78(1):156–190.

Tornell, Aaron and Philip Lane. 1999. "The Voracity Effect." *American Economic Review* 89(1):22–46.

Vegh, Carlos A., Daniel Lederman and Federico Bennett. 2017. *Leaning Against the Wind: Fiscal Policy in Latin America and the Caribbean in a Historical Perspective*. World Bank.

Vegh, Carlos A. and Guillermo Vuletin. 2014*a*. "The road to redemption: Policy response to crises in Latin America." *IMF Economic Review* 62:526–568.

Vegh, Carlos A. and Guillermo Vuletin. 2014*b*. "Social Implications of Fiscal Policy Responses During Crises." *NBER Working Paper* 19828.

Vegh, Carlos A. and Guillermo Vuletin. 2015. "How Is Tax Policy Conducted over the Business Cycle?" *American Economic Journal: Economic Policy* 7(3):327–70.

Velasco, Andrés. 1999. A Model of Endogenous Fiscal Deficits and Delayed Fiscal Reforms. In *Fiscal Institutions and Fiscal Performance*, ed. James Poterba and Jurgen von Hagen. Chicago: University of Chicago Press chapter 2, pp. 37–58.

Volkerink, Bjørn and Jakob de Haan. 1999. "Fragmented Government Effects on Fiscal Policy: New Evidence." *Public Choice* 109:221–242.

Woo, Jaejoon. 2009. "Why Do More Polarized Countries Run More Pro-cyclical Fiscal Policy." *Review of Economics and Statistics* 91:850–870.

Woo, Jaejoon. 2011. "Growth, income distribution, and fiscal policy volatility." *Journal of Development Economics* 96(2):289–313.

Appendix

Variable Definitions

- **Tax and spending policy knowledge:** Number of questions about the spending and tax authorities answered correctly (ranging from 0 to 2). The first question asked which actor is responsible for making spending decisions, and the second who is responsible for setting tax policy. The correct answer for both questions is "'The President and Congress".

- **Primary education level:** A dummy taking the value of 1 if the respondent's highest level of school is complete primary education or incomplete secondary education, and zero otherwise (i.e., she did not complete primary education, or has a higher level of school).

- **Secondary education level:** A dummy taking the value of 1 if the respondent's highest level of school is complete secondary school or incomplete tertiary education, and zero otherwise.

- **Tertiary Education:** A dummy taking the value of 1 if the respondent's highest level of school is complete tertiary education (either technical or university education), or graduate education.

- **Trust in politicians:** A 4-point scale variable where 1 indicates that politicians never fulfill their promises, and 4 indicates that they commonly meet them.

- **General trust:** A 4-point scale variable where 1 indicates most people are unreliable, and 4 indicates that people are very trustworthy.

- **Patience (1-32 scale):** A discrete variable ranging from 1 to 32. Higher values indicate a lower discount rate or greater patience.

- **Risk-seeking (1-5 scale):** A 5-point scale variable with higher values indicate that the individual is more willing to take risks.

- **Income decile:** Self-location of household's income in the country-specific income distribution.

- **Perception - Income decile:** Self-location on a 10-step ladder, where the poorest were on the first step and the richest on the tenth.

- **Female:** A dummy taking the value of 1 for female respondents and 0 for male participants.

- **Head of household:** A dummy taking the value of 1 if the respondent self-identifies as head of household, and 0 if another person is the head, or if the household does not have a head.

- **Unemployed:** A dummy taking the value of 1 for respondents that are not working, and 0 for those that work.

- **Informal worker:** A dummy taking the value of 1 for respondents who say they are employed and that neither they nor their employer makes pension contributions on their behalf, and 0 if they report pension contributions or if they are not employed.

- **Retired:** A dummy taking the value of 1 if the respondent is retired and 0 if she works, is unemployed, or dedicates her time to other activities (e.g., studying or housekeeping).

- **Government subsidies:** A dummy taking the value of 1 if the respondent or a household member benefits from government subsidies or cash transfers, and 0 otherwise.

- **Household size:** Winsorized number of adults and children in the household. If the number of adults or children is above the 95th percentile, the value is replaced with the 99th percentile of the variable.

- **Age:** Respondent's age.

- **Treated in Experiment 1 (VAT):** A dummy taking the value of 1 if the respondent was part of the treatment group of the VAT experiment before expressing her preferences over inter-temporal trade-offs in fiscal policy, and 0 if she was in the control group or if she was treated in the VAT after answering the questions on fiscal policy preferences.

- **Option 1 = Procyclical:** A dummy taking the value of 1 if the respondent was randomly assigned an instrument showing the procyclical option first, and 0 otherwise.

- **Left-Right political spectrum (10 = right):** A variable ranging from 0 to 10 where respondents place themselves on the political spectrum.

- **Urgency to reduce deficit:** A 5-point scale variable that indicates the level of agreement with the sentence "Policies to reduce the deficit and the public debt cannot wait".

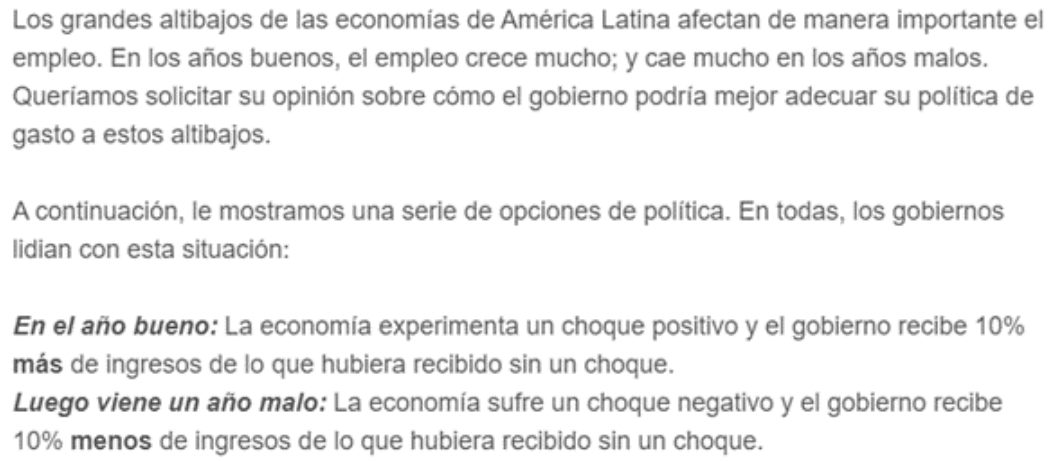
- **State tax-collection capacity:** A 5-point scale variable where 1 indicates that the tax administration is incapable of collecting taxes, and 5 that is very capable.

- **Voted in the last elections:** A dummy taking the value of 1 if the respondent voted in the last national elections, and 0 otherwise.

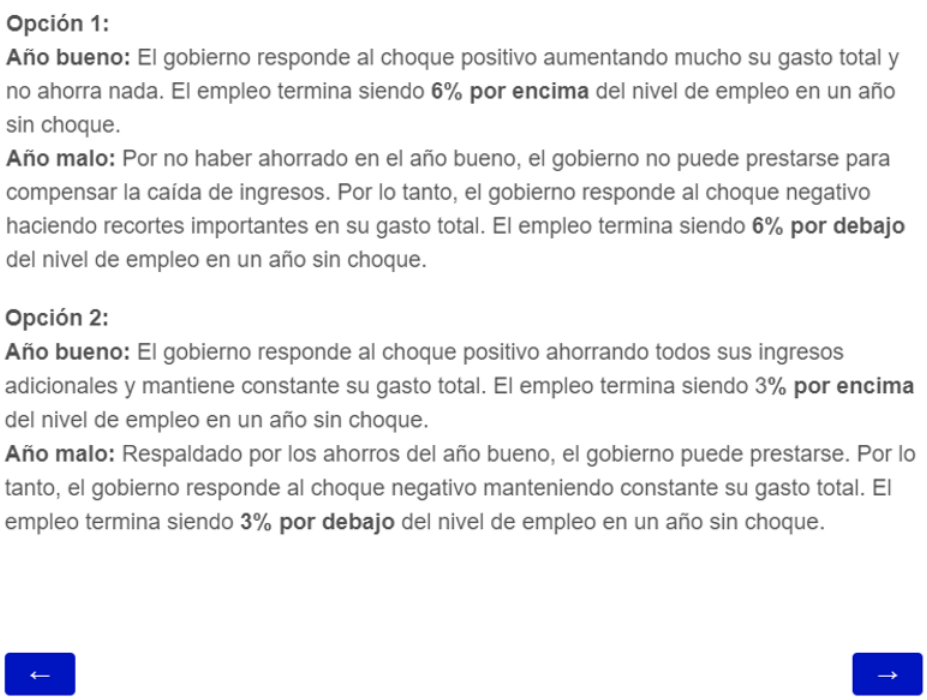
- **Correct answers in tests (0-2):** Number of correct answers in comprehension questions. The first question asks under which option public spending increases the most during good years, and the second asks under which option is public spending least reduced during bad years.

Appendix Figures

Figure A1: Survey Experiment Screenshots



(a) Experiment introductory screen



(b) Policy options screen (control group)

Figure A2: Voters' policy preferences screen

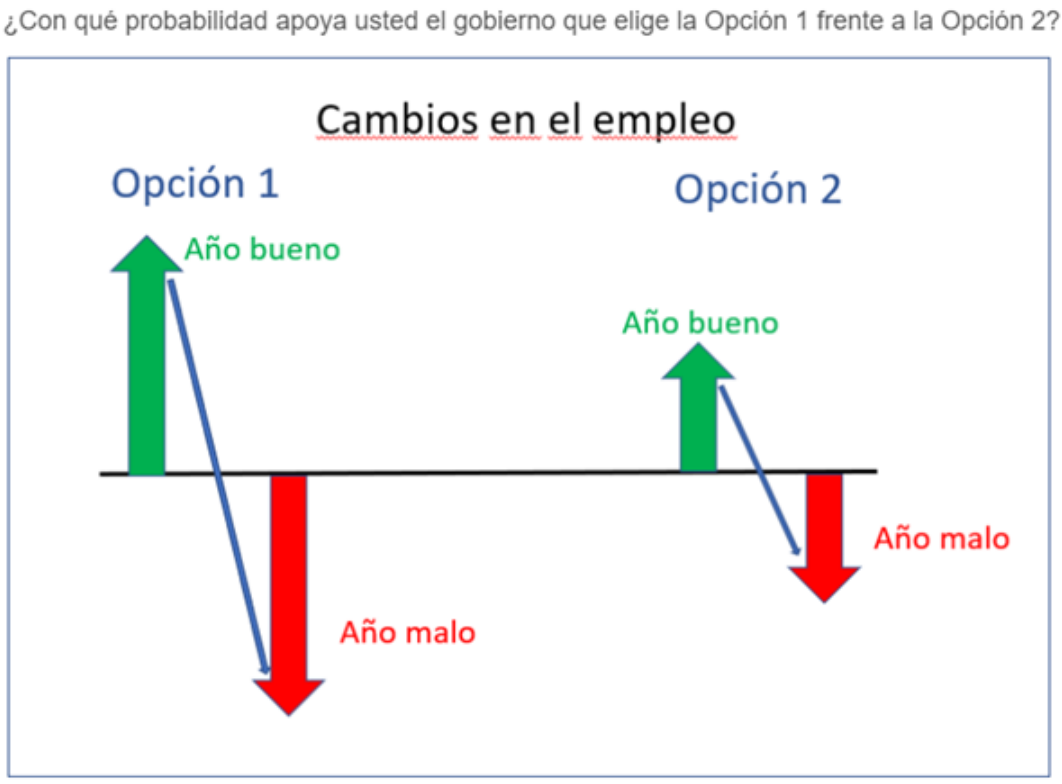
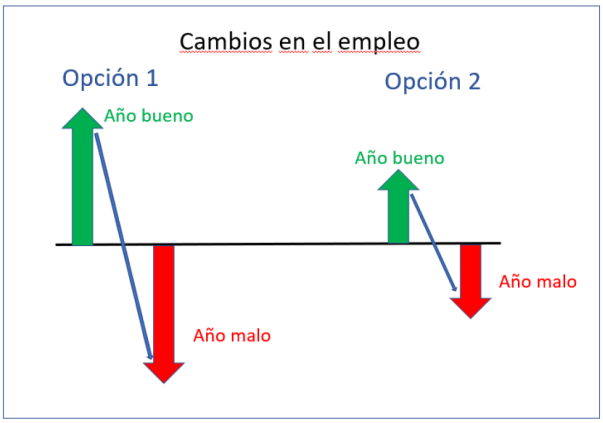
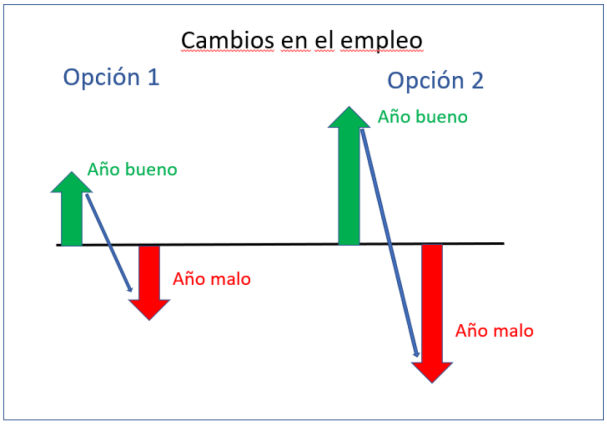


Figure A3: Fiscal Policy Options



(a) Procyclical first



(b) Acyclical first

Appendix Tables

Table A1: Summary Statistics

	Obs	Mean	Std Dev	Min	Max
Treated (Spending Composition)	12,152	0.500	0.500	0	1
Tax and spending policy knowledge	12,152	0.951	0.814	0	2
Primary education level	12,152	0.061	0.239	0	1
Secondary education level	12,152	0.411	0.492	0	1
Tertiary Education	12,152	0.516	0.500	0	1
Trust in politicians	12,152	1.827	0.861	1	4
General trust	12,152	2.663	0.690	1	4
Patience (1-32 scale)	12,152	18.362	11.033	1	32
Risk-seeking (1-5 scale)	12,152	3.330	1.039	1	5
Income decile	12,152	5.411	3.112	1	10
Perception - Income decile	12,152	4.792	1.502	1	10
Female	12,152	0.501	0.500	0	1
Head of household	12,152	0.473	0.499	0	1
Unemployed	12,152	0.324	0.468	0	1
Informal worker	12,152	0.191	0.393	0	1
Retired	12,152	0.050	0.218	0	1
Government subsidies	12,152	0.158	0.365	0	1
Household size	12,152	4.020	2.322	1	12
Age	12,152	38.755	13.780	16	99
Treated in Experiment 1 (VAT)	12,152	0.254	0.435	0	1
Option 1 = Pro-cyclical	12,152	0.500	0.500	0	1
Left-Right political spectrum (10 = right)	12,152	5.323	2.225	0	10
Urgency to reduce deficit	12,152	3.271	1.187	1	5
State tax-collection capacity	12,152	3.071	1.177	1	5
Voted in the last elections	12,152	0.837	0.369	0	1
Correct answers in tests (0-2)	12,152	1.449	0.719	0	2

Table A2: Average Treatment Effects on Fiscal Policy Preferences: Ordered Probit Estimates

	Outcome level value				
	(1)	(2)	(3)	(4)	(5)
Panel A: 5-Point scale outcome without controls					
Treated (Spending Composition)	-0.009***	-0.008***	-0.004***	0.006***	0.014***
	(0.003)	(0.003)	(0.001)	(0.002)	(0.005)
Panel B: 5-Point scale outcome with controls					
Treated (Spending Composition)	-0.009***	-0.008***	-0.004***	0.006***	0.014***
	(0.003)	(0.003)	(0.001)	(0.002)	(0.005)
Panel C: Trichotomous outcome without controls					
Treated (Spending Composition)	-0.018***	-0.004**	0.022***		
	(0.007)	(0.002)	(0.008)		
Panel D: Trichotomous outcome with controls					
Treated (Spending Composition)	-0.018***	-0.004***	0.022***		
	(0.006)	(0.002)	(0.008)		
Observations	12,152	12,152	12,152	12,152	12,152

Notes: This table reports the Ordered Probit estimates of the marginal effects of the treatment in the spending composition experiment on each level of the two measures of preference for acyclical policy (5 levels for the first dependent variable and 3 for the second one). Regressions in Panels B and D control for all covariates in Table A1, except the last 5 (the extended controls). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

Table A3: Average Treatment Effects on Fiscal Policy Preferences With Controls (5-point scale outcome)

	(1)	(2)	(3)	(4)	(5)
Treated (Spending Composition)	0.060**	0.059**	0.060**	0.061**	0.059**
	(0.021)	(0.022)	(0.021)	(0.021)	(0.021)
Trust in politicians		-0.053**			-0.048**
		(0.017)			(0.017)
General trust		0.021			0.021
		(0.015)			(0.015)
Patience (1-32 scale)			0.007***		0.007***
			(0.001)		(0.001)
Risk-seeking (1-5 scale)				-0.042**	-0.044**
				(0.017)	(0.017)
Tax and spending policy knowledge	0.064***	0.063***	0.062***	0.063***	0.060***
	(0.014)	(0.014)	(0.015)	(0.014)	(0.014)
Primary education level	0.049	0.047	0.036	0.056	0.043
	(0.070)	(0.072)	(0.075)	(0.071)	(0.078)
Secondary education level	0.167*	0.162*	0.142	0.172*	0.142
	(0.079)	(0.081)	(0.082)	(0.080)	(0.084)
Tertiary Education	0.240**	0.233**	0.211**	0.242**	0.207**
	(0.074)	(0.075)	(0.075)	(0.075)	(0.078)
Income decile	0.045***	0.044***	0.042***	0.045***	0.040***
	(0.008)	(0.007)	(0.007)	(0.008)	(0.007)
Perception - Income decile	-0.020	-0.019	-0.022	-0.018	-0.017
	(0.013)	(0.012)	(0.013)	(0.012)	(0.012)
Female	0.018	0.017	0.021	0.012	0.015
	(0.026)	(0.026)	(0.025)	(0.026)	(0.025)
Head of household	-0.022	-0.021	-0.021	-0.015	-0.012
	(0.023)	(0.022)	(0.023)	(0.024)	(0.022)
Unemployed	0.049	0.049	0.054*	0.045	0.050
	(0.029)	(0.029)	(0.028)	(0.029)	(0.028)
Informal worker	0.031	0.030	0.032	0.032	0.032
	(0.030)	(0.029)	(0.029)	(0.030)	(0.028)
Retired	0.064	0.069	0.063	0.059	0.062
	(0.057)	(0.056)	(0.054)	(0.056)	(0.053)
Government subsidies	0.013	0.016	0.012	0.017	0.019
	(0.032)	(0.031)	(0.032)	(0.032)	(0.032)
Household size	-0.017***	-0.017***	-0.016***	-0.016***	-0.014***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Age	-0.005**	-0.006**	-0.005**	-0.006**	-0.005**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Treated in Experiment 1 (VAT)	0.036	0.036	0.034	0.036	0.034
	(0.021)	(0.021)	(0.021)	(0.021)	(0.022)
Option 1 = Pro-cyclical	-0.379***	-0.377***	-0.379***	-0.379***	-0.378***
	(0.033)	(0.033)	(0.034)	(0.034)	(0.034)
Constant	3.311***	3.359***	3.218***	3.444***	3.393***
	(0.124)	(0.134)	(0.126)	(0.141)	(0.149)
Observations	12,152	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Dep Var Mean	3.31	3.31	3.31	3.31	3.31
Dep Var SD	1.22	1.22	1.22	1.22	1.22

Notes: This table reports estimates of the ATE of the spending composition experiment and the correlations between the 5-point scale measure of preference for acyclical policy and trust, patience, and risk-seeking, controlling for all variables in Table A1 (except the last 5). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

Table A4: Average Treatment Effects on Fiscal Policy Preferences With Controls (Trichotomous Outcome)

	(1)	(2)	(3)	(4)	(5)
Treated (Spending Composition)	0.040**	0.039**	0.039**	0.040**	0.039**
	(0.014)	(0.015)	(0.014)	(0.014)	(0.014)
Trust in politicians		-0.030**			-0.026**
		(0.010)			(0.010)
General trust		0.013			0.013
		(0.010)			(0.010)
Patience (1-32 scale)			0.004***		0.004***
			(0.001)		(0.001)
Risk-seeking (1-5 scale)				-0.029**	-0.031**
				(0.011)	(0.011)
Tax and spending policy knowledge	0.044***	0.043***	0.043***	0.043***	0.041***
	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)
Primary education level	0.081	0.080	0.073	0.086	0.077
	(0.048)	(0.048)	(0.051)	(0.050)	(0.053)
Secondary education level	0.158**	0.155**	0.142*	0.161**	0.142*
	(0.058)	(0.059)	(0.061)	(0.059)	(0.062)
Tertiary Education	0.212***	0.209**	0.194**	0.214**	0.192**
	(0.060)	(0.060)	(0.062)	(0.061)	(0.063)
Income decile	0.031***	0.030***	0.028***	0.030***	0.027***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Perception - Income decile	-0.016	-0.015	-0.017*	-0.014	-0.014
	(0.009)	(0.008)	(0.009)	(0.008)	(0.008)
Female	0.017	0.017	0.020	0.014	0.016
	(0.016)	(0.015)	(0.015)	(0.016)	(0.015)
Head of household	-0.021	-0.021	-0.020	-0.016	-0.015
	(0.018)	(0.018)	(0.018)	(0.019)	(0.018)
Unemployed	0.042*	0.042*	0.045*	0.040	0.043*
	(0.021)	(0.022)	(0.021)	(0.021)	(0.021)
Informal worker	0.024	0.024	0.025	0.025	0.025
	(0.018)	(0.018)	(0.018)	(0.018)	(0.017)
Retired	0.021	0.023	0.020	0.017	0.018
	(0.039)	(0.038)	(0.037)	(0.038)	(0.036)
Government subsidies	0.004	0.005	0.003	0.006	0.007
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
Household size	-0.011***	-0.011***	-0.010***	-0.010***	-0.009***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Age	-0.003**	-0.003**	-0.003**	-0.004**	-0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Treated in Experiment 1 (VAT)	0.021	0.021	0.020	0.021	0.020
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Option 1 = Pro-cyclical	-0.171***	-0.170***	-0.171***	-0.171***	-0.171***
	(0.019)	(0.019)	(0.020)	(0.020)	(0.020)
Constant	2.123***	2.147***	2.062***	2.215***	2.175***
	(0.074)	(0.076)	(0.078)	(0.081)	(0.085)
Observations	12,152	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Dep Var Mean	2.22	2.22	2.22	2.22	2.22
Dep Var SD	.828	.828	.828	.828	.828

Notes: This table reports estimates of the ATE of the spending composition experiment and the correlations between the trichotomous measure of preference for acyclical policy and trust, patience, and risk-seeking, controlling for all variables in Table A1 (except the last 5). Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

Table A5: Average Treatment Effects on Fiscal Policy Preferences With Extended Controls

	5-Point Scale Outcome		Trichotomous Outcome	
	(1)	(2)	(3)	(4)
Treated (Spending Composition)	0.059**	0.050*	0.039**	0.033*
	(0.021)	(0.022)	(0.014)	(0.015)
Trust in politicians	-0.048**	-0.037*	-0.026**	-0.019*
	(0.017)	(0.016)	(0.010)	(0.010)
General trust	0.021	0.019	0.013	0.012
	(0.015)	(0.015)	(0.010)	(0.010)
Patience (1-32 scale)	0.007***	0.005***	0.004***	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
Risk-seeking (1-5 scale)	-0.044**	-0.042**	-0.031**	-0.029**
	(0.017)	(0.016)	(0.011)	(0.010)
Tax and spending policy knowledge	0.060***	0.051***	0.041***	0.035***
	(0.014)	(0.014)	(0.008)	(0.009)
Primary education level	0.043	-0.008	0.077	0.045
	(0.078)	(0.088)	(0.053)	(0.058)
Secondary education level	0.142	0.057	0.142*	0.088
	(0.084)	(0.094)	(0.062)	(0.066)
Tertiary Education	0.207**	0.119	0.192**	0.136*
	(0.078)	(0.088)	(0.063)	(0.067)
Income decile	0.040***	0.036***	0.027***	0.024***
	(0.007)	(0.007)	(0.005)	(0.005)
Perception - Income decile	-0.017	-0.011	-0.014	-0.010
	(0.012)	(0.010)	(0.008)	(0.007)
Female	0.015	0.011	0.016	0.013
	(0.025)	(0.025)	(0.015)	(0.015)
Head of household	-0.012	-0.003	-0.015	-0.008
	(0.022)	(0.021)	(0.018)	(0.018)
Unemployed	0.050	0.044	0.043*	0.039*
	(0.028)	(0.024)	(0.021)	(0.019)
Informal worker	0.032	0.028	0.025	0.022
	(0.028)	(0.026)	(0.017)	(0.016)
Retired	0.062	0.058	0.018	0.016
	(0.053)	(0.050)	(0.036)	(0.035)
Government subsidies	0.019	0.024	0.007	0.011
	(0.032)	(0.028)	(0.022)	(0.020)
Household size	-0.014***	-0.013**	-0.009***	-0.008**
	(0.004)	(0.004)	(0.003)	(0.003)
Age	-0.005**	-0.005**	-0.003**	-0.003**
	(0.002)	(0.002)	(0.001)	(0.001)
Left-Right political spectrum (10 = right)		-0.010		-0.009*
		(0.006)		(0.005)
Urgency to reduce deficit		0.075***		0.050***
		(0.006)		(0.006)
State tax-collection capacity		-0.017		-0.009
		(0.012)		(0.008)
Voted in the last elections		0.017		0.005
		(0.026)		(0.021)
Correct answers in tests (0-2)		0.156***		0.098***
		(0.010)		(0.010)
Treated in Experiment 1 (VAT)	0.034	0.031	0.020	0.018
	(0.022)	(0.019)	(0.013)	(0.012)
Option 1 = Pro-cyclical	-0.378***	-0.380***	-0.171***	-0.171***
	(0.034)	(0.034)	(0.020)	(0.020)
Constant	3.393***	3.110***	2.175***	2.000***
	(0.149)	(0.190)	(0.085)	(0.110)
Observations	12,152	12,152	12,152	12,152
Country Fixed Effects	Yes	Yes	Yes	Yes
Dep Var Mean	3.31	3.31	2.22	2.22
Dep Var SD	1.22	1.22	.828	.828

Notes: This table presents estimates of the ATE of the spending composition experiment, and the correlations between preference for acyclical policy and trust, patience, and risk-seeking, when controlling for the baseline battery of covariates in columns (1) and (3), and for the extended set in columns (2) and (4). Table A1 contains summary statistics for the variables. Standard errors clustered at the country level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.