TRANSFERS AND POLITICAL SUPPORT IN TIMES OF ECONOMIC CRISIS*

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Despite economic crises, incumbents often retain electoral support. We study Chile's 1970–1973 infant nutrition program under Salvador Allende's left-wing government and argue that electoral resilience can arise from the political returns to transfers during periods of economic distress. The program provided free milk to preschoolers, reduced infant mortality, and increased left-wing vote share despite hyperinflation and widespread shortages. Using administrative data, survey evidence, and cross-municipality variation in experienced hyperinflation—constructed from national price shocks and local consumption bundles—we show that the marginal electoral return to transfers was significantly larger in areas facing more severe inflation. Survey data further indicate that transfers benefited the incumbent only among voters who did not attribute the crisis to government policies. Our findings highlight how economic hardship can amplify the political value of redistribution, and how crisis attribution shapes electoral accountability.

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I Introduction

Many governments receive robust electoral support during times of an economic crisis. The failure of poor economic conditions to transform into lower support usually puzzles contemporary observers. The political resilience of incumbents stands in stark contrast to a large and influential academic literature that emphasizes the importance of the economy for voting decisions.[1] The recent electoral performance of incumbents in Argentina, India, and Turkey, among others, highlights the limited influence of variables such as unemployment and inflation in shaping the political preferences of voters. Motivated by the results in these and similar elections, we provide a novel explanation for the phenomenon of robust governments in high-inflation environments. Our analysis bridges two areas of research in the social sciences. First, we rely on the well-established power of transfers in delivering support for incumbents (e.g. Manacorda et al. 2011; De La O 2013), and investigate whether their political returns could be amplified in times of crisis. Second, we explore the role of perceptions. People associate inflation with diminished living standards and usually blame the government for it (Shiller, 1997; Stantcheva, 2024). Yet voters who perceive inflation as unrelated to the incumbent might be particularly persuaded by the "helping hand" of transfers.

We find that transfers to households can help sustain government popularity in times of crisis. Our context is the largest infant nutrition program ever implemented. Led by socialist Salvador Allende, the Popular Unity (UP) government in Chile (1970–1973) introduced a universal nutrition program for preschool children (0–4 years old), providing three cups of milk per day. The program operated as a universal in-kind transfer delivered through public health facilities, supplying free nutritional goods rather than cash payments or price subsidies. It began immediately after taking office, reached a take-up rate of 80%, and is widely credited with reducing infant mortality. Yet higher public spending coincided with a severe economic crisis in the second half of the UP government, marked by triple-digit inflation and scarcity of basic goods by late 1972 (Dornbusch and Edwards, 1990).[2] Surveys show that roughly half of the population blamed the government for the crisis, while the rest attributed it to other factors. The March 1973 election thus became a referendum on the incumbent coalition. Surprisingly, the UP retained robust support, preventing the

[1] Contemporaneous economic performance has been shown to be key for government support. Production, unemployment, wages, and inflation are constantly under scrutiny as measures of incumbent performance. This "economic voting" literature is immense and spans many topics related to political preferences. The early empirical literature related macroeconomic trends with voting behavior (Kramer, 1971; Fair, 1978). We focus on the role of large public policies (e.g. transfers) in driving electoral preferences. Campbell (2012) provides a review of that literature.

[2] According to the World Development Indicators, the 606% inflation rate (−6.5% growth rate) in Chile in 1973 ranks in the 99th (5th) percentile of the inflation (GDP growth) distribution across countries in the 1970–2019 period.

opposition from impeaching the president. The weak economic performance failed to translate into lower electoral support, puzzling contemporaries and challenging conventional wisdom. One explanation is that the political returns to in-kind transfers rise during downturns, when the marginal utility of basic goods increases and households value state-provided consumption more. Shortly after the election, Allende was deposed by a military coup that led to a dictatorship (1973–1990).

Our paper is divided into three parts. The first part shows that the distribution of milk under the UP government was driven by the location of eligible beneficiaries and was unrelated to prevailing political preferences. To empirically study the implementation of the program, we digitized annual administrative data for all hospitals in the country, where the state delivered milk to preschoolers. We show that the amount of milk distributed through hospitals is statistically explained by the presence of eligible beneficiaries locally. Vote shares by party in 1970, rurality, remoteness, and income-related variables, among others, are unrelated to the allocation of milk. Using hospital-level data spanning the UP years, we document a robust negative association between milk distribution and hospital infant mortality, after accounting for hospital fixed effects, year fixed effects, and time-varying medical inputs. We further show that this relationship is concentrated among age groups for which the nutritional contribution of milk is plausibly largest, consistent with physiological mechanisms. While we do not claim a definitive causal estimate of aggregate mortality effects, back-of-the-envelope calculations suggest that the program may have contributed meaningfully to the observed decline in infant mortality during this period.

The second part of our analysis shows that the milk transfers generated political support for the UP government. Our research design relies on a difference-in-differences strategy using a panel of more than 300 municipalities observed in four Congress elections (1961–1973). At the time, Chile held competitive democratic elections with universal suffrage, secret ballot, and high participation rates. We document that the share of milk beneficiaries is strongly associated with UP vote share in 1973, but unrelated to vote shares or turnout in earlier elections, supporting the parallel trends assumption underlying our design. A one standard deviation increase in milk beneficiaries is associated with a 2–3 percentage point increase in UP vote share. Given an 80% take-up rate, this implies that the program explains roughly 4 percentage points of the coalition's support in 1973. We find no robust evidence that milk exposure increased turnout, suggesting that most of the political response operated through vote choice rather than large-scale mobilization of new voters. The estimates remain stable when controlling for other major policies implemented during the UP period, local demographic structure, and alternative specifications.[3]

[3]The effect of transfers on incumbent vote share is consistent with retrospective or prospective voting: voters may have reciprocated transfers (Finan and Schechter, 2012) or viewed them as signals of future policy.

To strengthen the causal interpretation of our results, we use two additional strategies. First, we exploit local exposure to a large family planning program funded by the Rockefeller Foundation in the late 1960s. Consistent with the contemporaneous medical literature (Viel, 1969), we show that the program reduced fertility and thus local exposure to the milk transfers. Using proximity to hospitals delivering IUDs as an instrument for milk beneficiaries, we find that a one standard deviation increase in exposure to the milk program increased UP support by approximately 3 percentage points. The IV results are robust to alternative specifications and to allowing for moderate violations of the exclusion restriction. Second, we explore heterogeneity by gender. The UP government explicitly targeted women in its information campaigns, portraying mothers as central to infant nutrition. Using survey evidence, we document that women reported valuing the milk program substantially more than men and that positive views of the program were associated with support for the UP. We then study voting by gender, exploiting the fact that men and women voted in separate booths during this period. The electoral effects of the milk program are present in both male and female voting booths, with somewhat larger point estimates among women, although differences across gender are not precisely estimated. Together, these findings are consistent with the view that the milk program generated political support, particularly among women.

The third part examines how the severity of the crisis shaped the political returns to the milk program. Using local measures of experienced hyperinflation constructed from national price changes and consumption bundles, we show that the marginal electoral return to transfers was significantly larger in municipalities facing more severe inflation. In other words, the political effect of the milk program increased with local economic hardship, consistent with voters assigning greater value to in-kind transfers when the marginal utility of basic goods is higher. Survey data from early 1973 further indicate that perceptions about the origins of the crisis are closely associated with this pattern. In particular, transfers are positively correlated with government support primarily among individuals who did not blame the government for inflation and scarcity of basic goods, whereas this association is much weaker among those who attributed the crisis to government policies. While these perception measures are not exogenous, the results are consistent with a mechanism in which attribution shapes the political returns to transfers during downturns. More generally, the findings underscore the importance of people's perceptions about the economy, recently stressed as an explanation for the weak performance of incumbents in general elections around the world, including the election of Donald Trump in the U.S. (Financial Times, 2024).

We contribute to the literature on economic voting and government survival during crises. A long tradition links macroeconomic performance to incumbent support (Schattschneider, 1935; Kramer, 1971; Fair, 1978; Nordhaus, 1989; Brender and Drazen, 2008), typically finding that poor

economic outcomes reduce electoral support. At the same time, a complementary literature shows that policies and transfers can generate political returns, including cash transfers (Manacorda et al., 2011; Pop-Eleches and Pop-Eleches, 2012; De La O, 2013; Labonne, 2013), redistributive reforms (Caprettini et al., 2023), debt relief (Aidt et al., 2024), infrastructure (Huet-Vaughn, 2019; Akbulut-Yuksel et al., 2024; Boudot-Reddy and Butler, 2024; Voigtländer and Voth, 2026), and disaster relief (Healy and Malhotra, 2009; Campbell, 2012; Bol et al., 2021). While these strands establish that voters respond to both economic conditions and policy interventions, less is known about whether large-scale redistribution can sustain incumbents during severe macroeconomic crises characterized by high inflation and widespread hardship.

Our analysis also relates to work on redistribution and political survival in downturns. Acemoglu et al. (2004) show that in weakly institutionalized settings rulers can maintain power by redistributing rents in ways that intensify collective action problems and deter coordinated opposition, and Morales-Arilla (2024) argues that autocrats facing negative shocks strategically favor supporters to contain unrest. In contrast to targeted redistribution under autocracy, we study a universal program implemented in a democracy. We show that broad-based, in-kind transfers can help sustain electoral support even amid hyperinflation. We further connect to evidence on electoral accountability for crises outside the incumbent's control: voters punish adverse shocks but reward relief efforts (Cole et al., 2012; Healy and Malhotra, 2009). Unlike these settings of largely exogenous shocks, the crisis we study was partly linked to expansionary government policies, allowing us to examine electoral returns to redistribution when responsibility for the downturn is contested.

Our contribution to the literature is threefold. First, we study universal public health transfers rather than targeted or clientelistic programs, documenting their electoral effects during economic collapse. Second, we combine administrative health data, electoral returns, and survey evidence to show how redistribution and macroeconomic crisis interact at unprecedented scale. Third, we highlight the role of perceptions: heterogeneous beliefs about the causes of inflation shape the political returns to transfers (Coibion et al., 2024; Stantcheva, 2024; Binetti et al., 2024). Electoral resilience depends not only on economic conditions, but also on how voters interpret their origins.

II The Chilean Road to Socialism

Salvador Allende was elected president of Chile in September 1970 with 36.6% of the vote. It was the fourth attempt of the prominent figure from the Socialist Party to become country leader. His victory took place in a context of growing demands for redistribution and was made possible by

the support of a broad left-wing coalition named Popular Unity (UP). The left's policy platform was designed to satisfy the redistributive demands arising from a growing middle class, explicitly planning to transition towards a socialist state (Popular Unity, 1969). The democratic plan for the transition stood in stark contrast to other armed processes in the continent, paving the way to what became known as "la via chilena" or the "Chilean way." The socialist experience was, however, short-lived. After little more than one thousand days in office, Chile's road to socialism came to an end after a military coup in September 1973 led to a seventeen-year dictatorship.

II.1 Economic policy during the socialist years

The economic policy of the UP was designed by technocrats and based on a diagnosis about the state of the economy in the 1960s. The proposed policies that followed were expected to improve the lives of the working class and support a transition towards socialism. When studying the leading companies and markets, left-wing economists argued for widespread "excess capacity" in the economy—i.e. firms produced less than their potential—which they explained by the prevalence of monopolistic industries and an unequal income distribution.[4] This diagnosis incentivized the development of an economic strategy based on higher spending and price controls to prevent inflation.[5] The higher spending allowed the UP to increase land expropriations in the context of the agrarian reform, to acquire control of banks and firms in strategic industries, and to create and expand social programs that benefited the low-income working class. Importantly, the higher spending was largely financed with an increase in money supply and domestic credit.

As a consequence of the UP economic policy, the first year of the Salvador Allende government was characterized by high wages and increased economic activity. Panel (a) in Figure 1 shows that gross domestic product increased markedly in 1971, even when compared to the previous government (1964-70) and other countries. Panel (b) shows that inflation was initially low, but the economy struggled to keep up with the increase in the aggregate demand and inflation began to rapidly increase, reaching three-digit levels in late 1972 (Edwards, 2023b). Economic growth, industrial activity, and real wages declined steeply from 1972 until September 1973 (Dornbusch and Edwards, 1990), much more than in other countries. The government attempted but failed to correct its policies and the consequences. Long daily queues to acquire basic products and black

[4]More details about the technical diagnosis, excess capacity, and the macroeconomic policy of the 1970-1973 years can be found in Dornbusch and Edwards (1990), Larrain and Meller (1991), and Edwards (2023a).

[5]The nationalization of banks and firms also required legislative work. The Congress unanimously approved a reform in 1971 that allowed the government to nationalize large copper mines. The legislation used to control other firms was from previous decades, much more controversial, and the opposition actively tried to limit its application.

markets spread throughout the country in the second half of 1972. Survey data in panel (c) reveal that more than 80 percent of people experienced the economic crisis in late 1972 (Appendix A describes the data). Heated discussions accompanied the poor economic performance. On the one hand, the opposition blamed left-wing policies and radical groups. On the other hand, the incumbent government pointed to the lack of cooperation by the opposition and anti-government actions financed by foreign nations.[6] The same panel (c) shows that half of the people believed the crisis was driven by the government, and the other half blamed non-government factors.

Many factors contributed to making the Salvador Allende years arguably among the most polarized in the country's history, and scholars have long debated about the causes (Nef, 1983; Oppenheim, 1989). Among the many factors discussed, we find the controversial nationalization program, the deteriorating economic conditions, conflicts within the left-wing coalition, the institutional constraints that regulated non-majority governments, and foreign interventions in the context of the Cold War (Sigmund, 1977; Boorstein, 1977; Valenzuela, 1979; Haslam, 2005).[7] Although the effect of foreign interventions remains debated (Sigmund, 1974; Aldunate et al., 2024), the relationship between a worsening economy and conflict is well documented around the world (Ray and Esteban, 2017). Protests, strikes, and discontent became more common, particularly among conservative groups (Power, 2002) but also among workers (Mansuy, 2023). The government appointed military officers as state secretaries in an attempt to control the discontent. Yet polarization, social tensions, and poor economic conditions never left the scene.

II.2 The 1973 election

The UP government faced two elections. Electoral results reveal that government support remained strong. Local elections in April 1971 were held during the economic boom caused by the initial higher spending. Candidates running under parties which formed the UP coalition obtained close to 50% of the vote. The other (now Congress) election was held in March 1973 when the economy was crumbling and most people were experiencing scarcity of basic goods and decreases in purchasing power. The government competed against the opposition coalition Confederation for Democracy (CODE). Surprisingly for many, the UP obtained a robust 44% of the vote, preventing the opposition to impeach Salvador Allende (Fermandois, 2013, p. 598). Although support was

[6]The US provided seven million dollars to opposition parties in Chile to explicitly decrease government support (U.S. Senate, 1975). The impact of US funding in Allende's Chile is a source of debate among scholars.

[7]Recent evidence shows how pressures from left-wing radicals increases the intensity of land expropriations in the context of the agrarian reform and contributed to conflict in the countryside (González and Vial, 2021). In a visit to Chile, Fidel Castro also complained about "Allende's reluctance to become more radical" (Davis, 1985, p. 44).

robust, surveys reveal an increase in disapproval from 19 to 31%. Panel (e) in Figure 1 aggregates all elections and large political surveys to show that, despite the changing economic conditions, the support for the left-wing government remained strong throughout the 1970-1973 period.

Politicians of the time recognized how crucial the 1973 election was, as it was widely perceived as a referendum about the UP government. Eduardo Frei Montalva, former president and leader of the opposition, claimed before the vote that "This election will define Chile's destiny for many years [...] This election is a plebiscite" (Dooner, 1985, p. 135). The front-page headline of a popular newspaper read: "Chile: A Big Referendum / Citizens evaluate the Marxist government." Historians also emphasize the importance of the ballot: "[The] congressional elections were widely considered as having the power to decide whether Chile's future would be shaped by democracy, dictatorship (on the left or the right), or a civil war." (Harmer, 2011, p. 202). The CODE expected high political support, with one of their leaders predicting they would get "more than 70 percent of the vote" (Amoros, 2013, p. 218).[8] The electoral result felt like a victory as "Allende and his government retained significant popular support" (Mansuy, 2023).

How did the UP government remain popular despite their poor economic performance? The most common explanation resorts to political ideology (and thus preferences) as being stable and unlikely to respond to prevailing economic conditions.[9] In contrast to previous work, we contend that social programs benefiting the working class were key to maintain government support. Observers of the time had already emphasized the importance of material conditions of low-income households: "[Ambassador Davis] wrote to Washington that the poorest half of the population was 'materially better off' under the UP" (Harmer, 2011, p. 205). Beatriz Allende, the president's daughter and advisor, reflected that the support was explained because "[Chileans] know about the most simple and quotidian facts, so vital for Chilean families such as...[receiving] half a litre of milk daily" (Harmer, 2020, p. 178). Some historians also suggest that social benefits were important: "[benefits delivered to the working class] were an important component of the UP support" (Fermandois, 2013, p. 735). We examine one of the most important social programs of the time.

[8] International observers were more cautious: "The CIA pessimistically saw 'little prospect of a conclusive [election] outcome,' suggesting instead that the UP would probably win 38 percent. U.S. officials were therefore shocked and 'disappointed' when the UP won 43.39 percent of the vote..." (Harmer, 2011, p. 205). Moreover, U.S. onlookers were surprised by "the relative insignificance that Chile's economic difficulties had on the election results" (Harmer, 2011, p. 218) and "the U.S. Government re-assessed its objectives" (U.S. Senate, 1975, p. 30).

[9] "Despite the economic crisis in Chile, the [1973] election also demonstrated that ideology and class rather than economic factors shaped political loyalties." (Harmer, 2020, p. 200). See also Navia and Osorio (2015b), who reaches a similar conclusion using the survey data to study vote intention in a multivariate regression analysis.

II.3 The Milk Program

We study Salvador Allende's milk program, one of the most salient and important policies of the UP government (Frens-String, 2021).[10] The chilean state began to deliver free milk to infants, preschoolers, and pregnant women in 1954 under the National Complementary Food Program (PNAC). Women from the elite delivered free milk in low-income neighborhoods since at least the 1910s (Ministry of Health, 2010). The decrease in infant mortality among the populations targeted by those private programs motivated the state to institutionalize the delivery of free milk (González and Infante, 1980; Illanes, 2007). The first public efforts in 1924 were limited, as free milk was delivered only to infants of insured working mothers. The coverage extended in 1937 to spouses of insured workers, but beneficiaries remained few relative to the population. After the creation of the National Health Service in 1952, the program officially expanded to include preschool children and began to receive more funding from social security (Hakim and Solimano, 1976).

The milk program was embraced by all candidates in the 1970 presidential election and featured prominently in many of Salvador Allende's speeches.[11] After his victory, Allende placed the scheme at the heart of his social platform, made it a top priority, and rebranded it as "Half Litre of Milk" to be explicit about the goal of giving children half litre of milk per day. The first important change under Allende was that the program was no longer restricted to beneficiaries of the National Health Service. Second, the government invested significantly more resources in the implementation of the program. Resources were allocated to develop the milk industry and buy domestically. And third, informational campaigns increased in intensity to persuade mothers about the nutritional benefits of milk. Pamphlets were massively distributed and nurses from local hospitals actively engaged in door-to-door recruitment of beneficiaries (Goldsmith Weil, 2019).[12] In all, approximately 1500 million litres of milk were consumed in Chile in 1971, 900 of which were produced locally and 600 imported. The program continued being implemented after 1973 in a similar fashion regardless of the remarkably different political conditions (Goldsmith Weil, 2018).

[10]Nutrition and infant mortality were top priorities at the time. Panel (a) in Figure A1 uses data from the United Nations to track the relative performance of Chile in terms of infant mortality. Between 1960 and 1980, Chile was able to close the gap with the United States, reaching less than 40 deaths per 1,000 births in 1980. Importantly, the milk program was well-evaluated at the time and the military dictatorship kept it unchanged during the 1970s.

[11]Dr. Fernando Mönckeberg, founder of the Institute for Nutrition and Food Technology in Chile, recalls that his team approached all three candidates to convince them to explicitly include and promote a milk program. He states that "Allende understood it better [...] I think he was elected because of it." (Goldsmith Weil, 2019, p. 114)

[12]The milk program also covered children aged 7 to 14, with distribution carried out through schools rather than health centers. This component was administered by the state educational agency JUNAEB. As a result, it was less visible to parents and more difficult to directly associate with the central government.

Empirical evaluations of the milk program consistently find it to be a successful policy. Most evidence comes from surveys and compares recipients with non-recipients. Three conclusions are worth mentioning for the purposes of this study. First, the initial goal was to reach more than 85% of eligible beneficiaries, a number that was reached in 1972 among low- and middle-income families (Hakim and Solimano, 1976, p. 194). Recipients came disproportionately from low-income families, precisely where malnutrition was more prevalent (Torche 1985, Figure A2).[13] Second, the milk that parents collected at the hospital was consumed by infants and preschoolers, not sold in secondary markets. Multivariate regression analysis using data from the early 1970s reveals that protein intake increased during breakfast among 5-23 months old infant recipients when compared to same-age non-recipients (Harbert and Scandizzo, 1985, p. 227).[14] And third, milk distribution is unlikely to have crowded out breastfeeding. Breastfeeding rates were high before the first month (Mardones-Santander, 1979, p. 6), but weaning was widespread afterwards, a common practice since at least the 1940s (Hakim and Solimano, 1976, p. 197). Figure A3 shows breastfeeding rates per child age in 1970s Chile. As mothers usually preferred breastfeeding when possible, we expect the milk program to have higher benefits for children older than 6 months.

III Data Construction

This section describes the data sources and the construction of the main datasets used in the empirical analysis. During the period we study, Chile was administratively divided into 335 municipalities, each located in one of 25 provinces and governed by democratically elected local leaders.

III.1 Milk distribution and mortality

The National Health Service (NHS), an institution operating under the umbrella of the Ministry of Public Health, was in charge of implementing health policies in the 1960s and during the UP years. The NHS worked in cooperation with local health facilities to reach beneficiaries spread throughout the country. The country was divided into 55 health areas which operated 247 hospitals and 947 health centers in 1970 (INE, 1970, p.197). Hospitals promoted and protected people's health by providing medical care to individuals. Other health facilities provided more specialized

[13]Evaluations of the milk program supervised by the University of Chile show that by 1971 the take-up rate among low-income families was higher than 95% and persistent in the city capital (Harbert and Scandizzo, 1985, p. 221).

[14]Their analysis is based on data from the National Nutrition Survey, conducted in 1974 by the Nutrition Division of the National Health Service. The sample of 1,600 families is representative of urban and rural areas in the country.

healthcare and had fewer resources, but also helped to distribute milk throughout the country.

We track the delivery of milk using administrative data published by the National Statistics Bureau (INE). Two annual reports are particularly useful, both part of the annual Health Statistics volume produced in collaboration with the NHS. These volumes report statistics at three levels of aggregation: province, area, and health facility. The first report is known as "Resources and Health Care" (Volume I) and tracks the number of healthcare visits by type of healthcare worker (e.g. nurse) and patient (e.g. adult), the total number of workers (e.g. physicians), the number of hours worked by type of worker and, crucially, the amount of powdered milk distributed (in kilograms). These data was published every year since 1965. We digitized the hospital-level data for the 1968-1975 period. The second report is known as "Hospital Discharges" (Volume II) and reports the total number of discharges, including deaths, by hospital and year. Importantly, deaths are reported in the following age brackets: less than 28 days alive, 28 days to 11 months, 1-4 years old, 5-9, 10-14, and older brackets. We digitized these data for the same 1968-1975 period. We can connect both reports using hospital-level information, which gives us a total of 132 hospitals with information on milk distribution and deaths in a total of six years between 1968 and 1975.[15]

Panels A and B in Table A1 present summary statistics for the main variables used in the analysis. Panel A describes the 55 health areas and panel B the 132 hospitals in the final dataset for 1971. The average health area distributed 351 tons of powdered milk (3 million litres) in 1971, a significant increase from the 231 tons (1.8 million litres) distributed in 1970. Hospitals distributed an average of 90 tons of powdered milk and there were 3 hospitals per area. The hospital mortality rate of 0-4 year old children was 1.3 per 1,000 total discharges. Using infant mortality data harmonized by the United Nations in 1971, we calculate that *hospital* infant deaths represent approximately half of *all* infant deaths in the country. Physicians worked a total of 90.6 hours a day in the average hospital, i.e. the equivalent of 10 physicians working 9.1 hours per day.

III.2 Vote shares, enfranchisement, and coalitions

We digitized and harmonized voting data collected by the Electoral Service, Chile's official state agency in charge of elections. In particular, we collected electoral data by municipality and political party for all elections from 1961 until 1973: Congress (1961, 1965, 1969, 1973), Local (1963, 1967, 1971), and Presidential (1964, 1970). This information is currently stored in physical books in the state office in the country's capital, and we digitized it for the purposes of this study.

[15]The quality of the reports in the early 1960s is unfortunately low and hard to digitize. Also, the 1972 and 1974 reports are missing. Therefore, we only observe hospitals in 6 periods (1968, 1969, 1970, 1971, 1973, and 1975).

Our main interest is on the vote share of the UP, coalition officially formed in December of 1969 and led by the Communist Party (PC) and the Socialist Party (PS). Other left-wing parties joined the coalition in the same year but left before 1973, and some smaller parties joined in 1971. To avoid confounding the dynamic nature of the coalition, we always study the vote shares of the Communist and Socialist parties and refer to this variable as "Left-wing vote share."

Everyone who was at least 21 years old and literate was eligible to vote in the 1960s. Registration was voluntary but turnout was mandatory conditional on registration, which implies that registration and turnout are almost perfectly correlated. Women obtained the right to vote in local elections in 1935, in congress elections in 1951, and presidential elections 1952. Secret ballot was introduced in 1958 (Baland and Robinson, 2008) and since then elections were free and competitive until 1973. Although few electoral changes took place in the 1960s, one enfranchisement law was enacted in January 1970 by the centre government of Eduardo Frei (1964-1970). The law made voting universal as it allowed illiterate people (11 percent of the population) and those who were 18-20 years old (3 percent of the population) to vote for the first time. Our empirical analysis assesses and accounts for the role of these changes in driving turnout and UP political support.[16]

The main dataset we use is a panel dataset with municipality-level information on vote shares and turnout. After accounting for some changes in the number of municipalities over time, we are able to track 307 municipalities in every election year from 1961 until 1973. To construct turnout by election and municipality, we divide the total number of valid votes in the corresponding year by the adult population as revealed by the 1970 census.[17] Panel C in Table A1 presents descriptive statistics for main variables of interest. We present the mean, median, and standard deviation. Importantly, the vote shares of the UP in 1971 and 1973, together with Salvador Allende's vote share in 1970, show that we are able to capture that main political trends of this period. In particular, we observe an increase in the political support for the left-wing between 1970 and 1971 during the economic boom, and a smaller decrease in political support between 1971 and 1973. Similarly, we capture the increase in turnout from 1969 (31 percent) to 1970 (39) to 1973 (46). The former is driven by the enfranchisement of 18-20 years old and the latter by the vote of illiterates who could only exert their right to vote after the procedure was detailed in early 1972 (Law 17626).

[16] Another change took place in December of 1969 which allowed blind people to vote for the first time. However, this change enfranchised a significantly smaller part of the population and is unlikely to affect our analysis.

[17] We intentionally avoid variation in the denominator to capture changes in the number of adults who decided to vote instead of within country migration patterns. We assess the role of internal migration in the following section.

III.3 Milk beneficiaries and the local population

According to the 1970 Housing and Population Census, Chile had close to 9 million inhabitants in 1970, 75% living in urban areas and 25% in rural areas. Although the individual-level data for this census is unavailable, the National Statistics Bureau published several volumes with municipality-level information, all originally constructed from the individual-level data. We digitized information from several of these volumes to characterize the 307 municipalities in our dataset.

The 1970 census was conducted in April and it allows us to track the location of milk beneficiaries immediately before Allende rose to power.[18] We measure the exposure of a municipality to the milk program by the share of the population younger than 4 years old and call this variable "Milk beneficiaries." The universality of the program allows us to use the census to track beneficiaries. The variation we capture is precisely what we are after because children younger than 4 years old acquired the milk in hospitals. Figure A4 shows the geographic distribution of the milk beneficiaries, revealing little clustering. Overall, Table A1 shows that the average municipality had 25,000 inhabitants, 13 percent of whom we classified as milk beneficiaries (3,000 children). A quarter of adults had more than six years of education, 12 percent were illiterate, and there is significant heterogeneity in terms of the share of workers in the agricultural and mining sectors.

IV The Milk Program and Infant Mortality

This section describes quantitatively the milk program in 1970-1973. We present two findings that highlight the scale, importance, and non-partisan aspect of these transfers. First, the distribution of milk followed eligible beneficiaries closely and was undistorted by existing political preferences of the electorate. Second, the distribution of milk helped to decrease children hospital mortality significantly, particularly among children between 1 month and 1 year of age.

IV.1 Program implementation

Two pillars of our empirical analysis are the sharp increase in milk distributed after Salvador Allende rose to power in November 1970, and the absence of partisan bias in the delivery of the transfers. This is, we argue that milk was distributed to satisfy the nutritional needs of children

[18] Comprehensive data on milk *recipients* is unavailable. We can recover the share of beneficiaries who received milk (i.e. recipients) per municipality by assuming how the milk distributed in a given hospital serves the surrounding municipalities. The result is likely to be imperfect as there are no geographic restrictions to the use of health facilities.

and *not* to benefit UP supporters or persuade opposition voters. Although the increase in milk distributed has been previously documented (e.g. Hakim and Solimano 1976), there is a lack of systematic evidence showing if political preferences distorted the distribution. Qualitative evidence from unstructured interviews suggests that the delivery of milk could have disproportionally benefited certain groups. Indeed, Goldsmith Weil (2019, p. 115) documents that beneficiaries refused the milk because it was "Allende's milk," "communist milk," "milk from the CIA," or "poor people's milk." Moreover, some claimed that "[The milk] was not distributed to everyone, [it reached] left-wing supporters." In contrast to the concerns expressed in those interviews, we show that political preferences were unrelated to the distribution of milk across the country.

Table A1 shows that the amount of milk distributed from 1970 to 1971 increased by more than 50 percent.[19] Based on the official policy description (SNS, 1972), we know that the goal of the government was to deliver 3 kilos of powdered milk each month to children younger than 6 months old (5 cups per day), 2 kilos to children between 6 months and 2 years old (3.3 cups per day), and 1.5 kilos to children between 2 and 6 years old (2.5 cups). Combining the number of children between 0 and 4 years old and the amount of kilos distributed, we calculate that the program delivered 21 kilos per child per year (2.9 cups per day). Given that most children consumed powdered milk, the program can be interpreted as a subsidy to household income for new recipients. In fact, the in-kind transfer was equivalent to 26 USD monthly today, 5 percent of the minimum wage, or approximately a 10 percent increase in household per capita income for the average family in 1970 (Harbert and Scandizzo, 1985, p. 232). The milk program was financially costly as it relied on imports that became more expensive over time. In fact, based on fiscal accounts and cost estimates by Hakim and Solimano (1976), we calculate that the delivery of milk contributed to increase the fiscal deficit by 13 percent (0.6 percentage points) in 1972 (Table A2).

To study the distribution of milk, we use our hospital-level dataset. Table 1 shows that in-kind transfers closely followed the location of eligible beneficiaries and were unrelated to political preferences as measured by vote shares in the 1970 presidential election. Panel A reports cross-sectional regressions at the health-area level (55 areas), where the dependent variable is milk distributed in 1971 or 1973. The number of milk beneficiaries is by far the strongest predictor of milk distribution, while Allende's 1970 vote share is small and statistically insignificant. Reassuringly, this relationship does not hold for children aged 5–14 (column 5), who received milk through schools rather than hospitals. The table also rejects the joint significance of all predictors

[19]The increase in milk distribution in Table A1 is based on administrative data from hospitals that delivered milk to 0-4 year old children who were not enrolled in a school, i.e. the numbers do *not* include the distribution of milk through schools. Figure A5 shows the amount of milk distributed through hospitals in the 1968-1973 period.

other than milk beneficiaries. Panel B replicates the exercise at the municipality level using the 187 municipalities with a milk hospital, with and without area fixed effects, and yields the same conclusion. Importantly, this absence of partisan allocation does not depend on conditioning on additional covariates: regressing milk distribution solely on Allende's 1970 vote share produces similarly small and statistically insignificant coefficients (Table A3).

IV.2 Infant mortality

The milk program has long been hypothesized to have contributed to the decrease in infant mortality (e.g. Castañeda 1996).[20] However, given the importance of other factors such as vaccination and sanitation (Fielding, 1999), it is a priori unclear how large is the contribution of the nutrition program to the secular decline in infant mortality. Physiologically, the milk transfers increase the protein intake of recipients, decrease the probability of malnutrition, and lead to lower prevalence of infectious diseases, one of the main causes behind infant mortality at the time (Medina and Kaempffer, 1983). We begin by showing that the distribution of milk is robustly and negatively correlated with mortality of 0-4 year old children. In terms of data, we use the panel of hospitals observed between 1968 and 1975. Data for 1972 and 1974 is unavailable, thus we rely on data for 161 hospitals observed in 6 years for more than 800 observations. Econometrically, we estimate:

$$y_{jkt} = \beta m_{jt} + \delta x_{jt} + \xi_j + \xi_{kt} + \nu_{jkt} \quad (1)$$

where y_{jkt} is the hyperbolic sine transformation of 0-4 year old children deaths over 1,000 children in the municipality of hospital j located in health area k in year t, i.e. children hospital mortality rate. We scale deaths by population to account for the size of hospitals. The main right-hand side variable of interest is m_{jt}, the (log) total amount of milk distributed by hospital and year. In addition, x_{jt} controls for the number of hours worked by physicians and the number of home visits done by nurses. In addition, ξ_j and ξ_{kt} are hospital and area-by-year fixed effects. We allow the error term ν_{jkt} to be arbitrarily correlated within hospitals over time. The main parameter of interest is β, which captures the elasticity of children hospital mortality to the amount of milk distributed.

We find a robust negative association between the distribution of milk and infant hospital mortality. Table 2 presents estimates of equation (1). Column 1 reveals a statistically significant elasticity of approximately -0.06. Columns 2 and 3 show that this relationship is stable when using

[20]Researchers recognized the difficulty of carrying out a rigorous evaluation. As noted by Hakim and Solimano (1976, p. 197): "the contribution of the milk program to that decline cannot be identified or separated from the effects of improved health and sanitation conditions, increased per capita income, better educational levels, etc. "

area-by-year fixed effects and when controlling for changes in hospital inputs.[21] Importantly, we do not observe a similar relationship for older children (5–9 or 10–14 years old), who did not receive milk through hospitals. This placebo exercise supports the interpretation that the association for 0–4 year olds reflects the age-specific nature of the program. Consistent with the conditionality of the intervention, we also find that milk distribution is positively associated with medical consultations (Table A5), suggesting that the program operated as a bundle combining improved nutrition and contact with the health system.[22]

While these estimates should not be interpreted as definitive causal effects—given the potential role of concurrent improvements in sanitation, vaccination, and income—they are consistent with the biological mechanism underlying the program. The nutritional impact of milk varies nonlinearly with age because protein requirements and breastfeeding rates differ across age groups. The share of protein requirements covered by the program (s_i) at age i can be written as $s_i \equiv (1 - b_i)\frac{m_i}{p_i}$, where b_i is the breastfeeding rate, m_i the proteins delivered by the program, and p_i the protein requirements of children of age i. Breastfeeding declined rapidly with age (Figure A3), while protein requirements increased. As a result, the program covered a larger share of nutritional needs among children between one month and four years old (Figure 2, panel A). Consistent with this pattern, panel B shows that the negative association between milk distribution and mortality is strongest precisely in the age group for which the nutritional contribution is largest.

A back-of-the-envelope calculation illustrates that the magnitude of the association is economically meaningful. Combining our estimated elasticity with aggregate trends in infant mortality suggests that milk distribution could plausibly account for a non-trivial share of the observed decline between 1970 and 1973. However, given the presence of other concurrent health and economic changes, this calculation should be interpreted as illustrative rather than causal. For the purposes of this paper, the key result is that the program is strongly and consistently associated with improvements in infant health outcomes.

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[21] One might worry that the milk program is correlated with changes in medical inputs. Reassuringly, Table A4 shows that milk distribution at the hospital level is statistically unrelated to changes in the number of physicians, nurses, hours worked by physicians, or home visits by nurses.

[22] Because 11 of 813 hospital-year observations record zero deaths, we re-estimate equation (1) using Poisson pseudo-maximum likelihood. The coefficients remain negative and statistically significant for children aged 0–4 and close to zero for older age groups (Table A6).

V Political Support in the 1973 Election

This section shows that the milk program increased support for the incumbent coalition in the 1973 election. Throughout the analysis, we interpret the results by implicitly assuming the existence of two types of voters: those who always vote for the incumbent (or the opposition), and those who can be persuaded by transfers. We begin by showing in Table 3 that milk beneficiaries and government support are strongly and robustly correlated in 1973. A one standard deviation increase in the share of milk beneficiaries (approximately 600 children) is associated with two percentage points higher support for the government (about 200 votes, columns 1–5), while it is unrelated to local participation in the election (column 6). This relationship is robust to controlling for vote shares in the 1970 election, to including fixed effects by province (25) or health area (55), and to accounting for a wide range of local socioeconomic and geographic characteristics. Panel B further shows that the share of milk beneficiaries is unrelated to vote shares and turnout in all elections between 1965 and 1971, when the program was smaller.

The evidence in Table 3 motivates the use of a difference-in-differences research design. Milk exposure, however, is not randomly distributed across municipalities. Table A7 documents that the share of milk beneficiaries is correlated with some predetermined sociodemographic and economic characteristics. These patterns underscore the need for an empirical strategy that accounts for both time-invariant differences across municipalities and observable baseline characteristics. To strengthen the causal interpretation of our findings, we implement a difference-in-differences design, exploit a large family planning program in an instrumental variables framework, provide survey evidence on the valuation of the program across gender combined with voting patterns in segregated booths, control for the implementation of other policies, and assess robustness using matching estimators and additional controls.

V.1 Difference-in-differences results

We exploit within-municipality variation over time using Congress elections in 1961, 1965, 1969, and 1973.[23] The difference-in-differences design allows us to control for time-invariant municipal

[23] We focus on Congress elections because they provide a consistent measure of party-level support under proportional representation and include a clear post-treatment election in 1973. Presidential elections involved strategic coordination (e.g., in 1964) and do not provide a post-treatment election for difference-in-differences identification.

characteristics through municipality fixed effects. We estimate:

$$V_{ijt} = \sum_{k=1961}^{1973} \beta_k \left[D_k \times T_i\right] + \phi_i + \phi_{jt} + \eta_{ijt}, \tag{2}$$

where V_{ijt} is the left-wing vote share in municipality i, located in area j, in election t; D_k are election-year indicators (with 1969 omitted); and T_i is the standardized share of milk beneficiaries. All specifications include municipality and area-by-election fixed effects, and standard errors are clustered at the municipality level.[24] Regressions are weighted by municipal population in 1970. To interpret $\widehat{\beta}_{1973}$ as the causal effect of milk exposure, we require a parallel trends assumption: absent the program, left-wing vote shares would have evolved similarly across municipalities with different beneficiary shares. In the continuous-treatment setting, this corresponds to parallel trends between municipalities receiving dose d and those receiving the lowest dose (Callaway et al., 2024).[25] Under this assumption, $\widehat{\beta}_{1973}$ identifies the intention-to-treat effect of milk exposure.[26]

Panel A of Figure 3 shows that milk exposure is unrelated to changes in left-wing vote shares prior to 1970, supporting the parallel trends assumption. The pre-treatment coefficients are jointly insignificant, and Appendix B shows that results are robust to small deviations from parallel trends (Roth, 2022; Rambachan and Roth, 2023; Dette and Schumann, 2024). In 1973, a one standard deviation increase in beneficiary share is associated with a 2–3 percentage point increase in left-wing vote share. Panel B extends the analysis to local elections in the 1960s and confirms the absence of pre-trends; the positive and marginally significant estimate for 1971 is consistent with the beginning of the program's rollout. Table 4 presents parametric estimates and shows that results are stable when including province-by-year or area-by-year fixed effects. Controlling for interactions between year 1973 and local characteristics leaves estimates virtually unchanged (Appendix B). Finally, we find no robust evidence that milk exposure increased turnout (column 5).

An important question is whether the program persuaded existing voters or mobilized new ones. This distinction is salient because illiterate citizens—about 11% of the population—were enfranchised during the UP period. Turnout effects are small and unstable, suggesting that most of the political response operates through vote choice rather than participation. To explore mobilization more directly, we estimate a triple-interaction specification allowing the 1973 effect of milk exposure to vary with municipal illiteracy rates. If mobilization of newly enfranchised voters

[24] Results are similar when clustering by province or area, or when allowing for spatial correlation (Conley, 1999).

[25] Appendix B2 estimates parametric versions of equation (2) and finds similar results.

[26] Recovering the average treatment effect requires scaling by the take-up rate, estimated at roughly 80 percent (Harbert and Scandizzo, 1985).

were central, milk exposure should increase turnout relatively more in high-illiteracy municipalities. Instead, we find no such pattern: the interaction is statistically indistinguishable from zero for vote share and negative for turnout (Table A8). These findings are more consistent with persuasion among existing voters than with large-scale mobilization of new voters, although the aggregate nature of the data prevents a sharp decomposition.

A concern is that milk exposure is correlated with other UP policies implemented between 1970 and 1973. Table 5 controls for land reform (González and Vial, 2021), trade protection (Cuesta et al., 2015), nationalizations, sectoral employment shares, university expansion (Bautista et al., 2025), enfranchisement through illiteracy, rural-urban migration (Cousiño, 2001), hospital inputs, and female labor force participation. Column 11 implements the post-double-selection LASSO procedure of Belloni et al. (2014), which selects illiteracy and distance to the closest university campus; including both simultaneously leaves the estimated milk effect virtually unchanged. Appendix B presents additional checks. Milk exposure is unrelated to pre-UP political preferences (Table 3, panel B), to the presence of young adults (Figure A6), or to milk-related production industries. Results are robust to alternative weighting schemes, geographic controls, matching procedures (Abadie, 2005; Crump et al., 2009; Yang and Ding, 2018; Sant'Anna and Zhao, 2020; Arkhangelsky et al., 2021), and to the removal of influential observations (Broderick et al., 2023).

V.2 Family planning program

Although the milk program was universal among preschool children, the local share of beneficiaries depended on pre-existing fertility patterns, which may be correlated with unobserved determinants of political behavior. To address this potential endogeneity, we exploit variation in fertility induced by differential access to a large family planning program implemented in the 1960s, prior to the UP government. Beginning in the mid-1960s, intrauterine devices (IUDs) were offered free of charge in a subset of public hospitals, as documented by contemporaneous medical studies (Requena et al., 1968; Viel, 1969). By 1967, more than 230,000 women—approximately 15% of women of fertile age—had accessed IUDs nationwide, underscoring the scale of the intervention. Although supported by international foundations, the program was implemented by Chilean public health professionals and integrated into the National Health Service (Pieper Mooney, 2009). Crucially, the expansion of IUD services predated the milk program and occurred under a different administration (Viel, 1967, 1969), making proximity to IUD hospitals a plausibly exogenous source of variation in fertility—and therefore in milk exposure—across municipalities.

Operationally, we use the (log) distance to the nearest hospital offering IUD services in the

late 1960s as a source of variation in fertility and, consequently, in the share of milk beneficiaries observed in 1970. The scale of the program makes this channel quantitatively meaningful: proximity to an IUD hospital reduced fertility in the late 1960s, affecting the local share of children eligible for the milk program. The first-stage results are reported in columns 1 and 2 of Table 6. Proximity to an IUD hospital strongly predicts a lower share of milk beneficiaries in 1970, and the associated F-statistics exceed conventional thresholds.[27] The reduced-form and first-stage difference-in-differences estimates further support the design: Figure A7 shows no evidence of differential pre-trends prior to 1970, with joint tests failing to reject parallel trends in both the reduced-form (panel A) and first-stage (panel B) specifications.

The exclusion restriction requires that distance to IUD hospitals affects left-wing vote share only through its impact on the share of milk beneficiaries. Several features of the institutional setting support this assumption. First, family planning services were embedded in public hospitals as part of comprehensive maternal health programs and were not geographically targeted on the basis of political preferences. Historical accounts emphasize that while population control debates were politically salient at the national level during the Cold War, the local provision of contraceptive services was largely technocratic and integrated into routine health care delivery (Pieper Mooney, 2015). Second, the expansion of family planning services predated the UP government and continued under it without major geographic reallocation, limiting the scope for a direct political effect tied specifically to the 1970–1973 period. Third, municipalities closer to IUD hospitals do not exhibit differential demographic or political trends in the pre-period: Table A20 shows no significant relationship between distance to IUD hospitals and changes in population density, rural composition, gender composition, or left-wing vote share prior to 1970.

Columns 3–6 of Table 6 present the two-stage least squares estimates. Across specifications, a one standard deviation increase in milk beneficiaries induced by the instrument is associated with a statistically significant increase in left-wing vote share in 1973, while turnout effects remain small and statistically insignificant. As in any instrumental variables framework, our estimates identify a local average treatment effect of milk exposure for municipalities whose share of eligible children was affected by proximity to IUD hospitals—that is, compliers whose fertility responded to access to family planning services. To assess sensitivity to potential violations of the exclusion restriction, Table A21 implements the plausibly exogenous approach of Conley et al. (2012), allowing the instrument (log distance to the closest hospital offering free IUDs) to have a direct effect on left-wing vote share in 1973 of magnitude $\delta \in [-\bar{\delta}, \bar{\delta}]$, in addition to its indirect effect through T_{1973}.

[27] Specifications in columns 2, 4, and 6 of Table 6 additionally control for the (log) distance to the closest hospital delivering free milk. This variable is not statistically significant in either the first or second stage.

The 90% confidence interval for the IV coefficient remains strictly positive for $\bar{\delta} \leq 0.27$ and begins to include zero at $\bar{\delta} \approx 0.28$. Thus, overturning the baseline IV result would require a non-trivial direct political effect of proximity to IUD hospitals—approximately 42% of the reduced-form effect—beyond its impact through fertility and milk exposure.

V.3 The vote of women

Surveys conducted in the 1960s and early 1970s reveal that the milk program became significantly more appreciated under the UP government, particularly among women. The surveys conducted by Eduardo Hamuy offer an unusually rich view of people's perceptions in real time. Panels (a) and (b) in Figure 4 show the three most popular policies before and after Allende rose to power. The question was the same across years, the answer was open, and the interviews were conducted in early 1970 and late 1972 respectively.[28] The milk program went from zero mentions to being mentioned by 11 percent of respondents. Two factors can explain the higher popularity of the program. First, infant nutrition and the milk program featured prominently in speeches during the 1970 presidential election. Milk became a cornerstone of the UP program and was featured high in the list of the "First 40 measures of the Popular government."[29] Second, the government deployed a large information campaign communicating the importance of milk. Booklets ("Why half litre of milk: Open letter to Chilean mothers") were distributed for free to inform about the importance of infant nutrition. Posters of children drinking milk next to mothers featured prominently in the National Lottery advertising campaign, reaching most people in the country (Ayala, 2020; Neves, 2021). Figure A8 shows reproductions of the information campaign supporting the program.

Women were targeted in visual imagery because they were seen as the critical link between the infant nutrition program and children. Perhaps as a consequence of this targeting, the 1972 survey shows that women mentioned the milk program 63 percent more than men (13 vs 8%; see panel (c) in Figure 4).[30] The same survey also asked about vote intention in the upcoming 1973 Congress Election. Of the 1,800 respondents, 46% said that they planned to vote for UP candidates, 38% for opposition (CODE) candidates, and 16% for others (or did not know). Panel (d) in Figure 4

[28]The use of open-ended questions has been increasing in economics in recent years. Haaland et al. (2024) provide a review of the emerging literature and emphasize their usefulness to understand people's thoughts and considerations.

[29]Infant nutrition never ceased to be important, as evidenced by Allende's speech in late 1972: "If children do not receive the necessary protein for their development, they will develop differently than the children who did get it."

[30]Two alternative explanations are plausible. First, women were targeted more broadly in political campaigns because they had been catching up with men in terms of political participation and were perceived as crucial swing voters in elections. Second, women might be more responsive than men to policies affecting children.

shows UP vote intention by gender and preferred policy. Men who mentioned the milk program intended to support the UP government slightly *less* than other men (44 vs 49%). However, women who mentioned the milk program planned to support UP candidates significantly *more* than other women (54 vs 42%). The difference-in-difference estimate across gender and preferred policy has a p-value of 0.053. This suggestive evidence of the importance of the milk program in shaping women's political preferences motivates us to more rigorously analyze votes by gender.[31]

We next examine whether the electoral effects of the milk program differed by gender. During this period, men and women voted in separate booths, which allows us to estimate equation (2) separately for male and female vote shares in the same four Congress elections (1961, 1965, 1969, 1973). Table 7 presents the results. Columns 1 and 2 report estimates using men's votes as the dependent variable, while columns 3 and 4 use women's votes; odd (even) columns examine left-wing vote shares (turnout). Across specifications, higher exposure to milk beneficiaries is associated with greater support for the left-wing coalition in both male and female voting booths. Point estimates are somewhat larger for women than for men, particularly in the instrumental variables specification (panel B), although the differences are not precisely estimated. For example, column 3 in panel B indicates that a one standard deviation increase in the share of beneficiaries is associated with a 3.4 percentage point increase in left-wing vote share among women, relative to a sample mean of 25 percent. Effects on turnout are generally small and statistically insignificant. Figure A9 provides supporting evidence for parallel trends by gender.

Gender-specific results are threatened by policies correlated with the milk program which benefited women. All 1970 candidates promised to improve women's lives, but the UP program also proposed (unsuccessfully) the introduction of divorce, which would have disproportionally affected localities with more married women. Moreover, the left-wing government increased college seats for women and extended maternity leave rights, among other policies targeting women (Townsend 1993, p. 48; Harmer 2020, p.187). To assess the potential confounding role of these policies, Table A9 repeats our main specification but now coupled with a matching strategy. Operationally, we use the share of women and the share of married women across municipalities and a wide range of matching estimators. Reassuringly, results are unaffected using these matching strategies, suggesting that other policies affecting women or married women are unlikely to affect our estimates.

[31] Historians have studied the political involvement of women extensively during this time period (Townsend, 1993; Power, 2002; Franceschet, 2005). In contrast to developed countries, chilean women were significantly more conservative than men in the 1970s, perhaps due to the organizational structure of left-wing parties, predominantly led by men (Klimpel, 1962). Existing literature mostly agrees in that women played an important *opposition* role to the Allende government. The historically low left-wing vote share among women, their high opposition vote share in 1973, and detailed accounts of the importance of anti-UP women-led protests are popular supporting evidence.

VI Times of Crisis

This section connects the political profitability of in-kind transfers with the severity of the economic crisis. We begin by using local measures of the crisis to show that transfers increased government support by more in locations where the hyperinflation was experienced more heavily. We then use survey data to show that the political returns of transfers are shaped by individuals who perceived the crisis as driven by forces external to the government. Taken together, these findings reveal how transfers help to sustain the popularity of governments in times of crisis.

VI.1 The local experience of the crisis

Government transfers are likely to be more valued by households in times of crisis because their marginal return is higher. Therefore, we expect the economic crisis during the Allende government to have a significant influence on the political profitability of transfers. In particular, in locations most hit by inflation and scarcity of goods, we expect the milk program to generate higher government support relative to other locations. We offer an empirical test of this hypothesis by using our econometric approach in the previous section combined with local measures of the crisis.

We measure the severity of the crisis across the country with local measures of experienced hyperinflation. We combine monthly price data for seven product categories between November 1970 and February 1973 with municipality-level consumption of the same categories.[32] The former is official data from the National Statistics Bureau, collected and harmonized by Cerda et al. (2020). Figure A10 shows the categories and prices. The latter comes from a National Food Consumption Survey (ENCA, 2010). By interacting national price changes with pre-determined cross-sectional variation in consumption bundles, we obtain municipality-level measures of experienced hyperinflation ranging from 462 to 849%, with an average of 637% and a standard deviation of 67%.

Because consumption patterns may reflect underlying socioeconomic or political characteristics, Table A10 examines whether either basket shares or the resulting hyperinflation measures are systematically correlated with pre-treatment characteristics. As expected, the composition of consumption baskets correlates with structural variables such as rurality, education, and sectoral composition. However, the hyperinflation measures themselves are not systematically related to pre-1970 political preferences or other municipal characteristics once area fixed effects are included. This evidence suggests that cross-sectional variation in experienced hyperinflation is driven by dif-

[32] This approach is motivated by recent empirical work showing the importance of price changes in grocery bundles for the formation of aggregate inflation expectations (D'Acunto et al., 2021; Weber et al., 2022).

ferential exposure to common national price shocks rather than by pre-existing political alignment.

To test for the role of the crisis, we interact the share of milk beneficiaries in equation (2) with our local measures of hyperinflation. To facilitate interpretation, we demean all continuous variables. In particular, we estimate the following difference-in-differences specification:

$$V_{ijt} = \beta (D_t \times T_i) + \gamma (D_t \times T_i \times H_i) + \delta (D_t \times H_i) + \phi_i + \phi_{jt} + \eta_{ijt} \quad (3)$$

where V_{ijt} is the left-wing vote share in municipality i, located in area or province j, in election t, D_t is an indicator for the 1973 election, T_i is the share of milk beneficiaries, H_i is the experience of hyperinflation up to the month before the election, and all other variables are defined as in equation (2). Because the continuous variables are demeaned, the estimate $\widehat{\beta}$ represents the political effect of the milk program in a municipality experiencing the average level of hyperinflation, while $\widehat{\gamma}$ captures how the marginal electoral return to the milk program varies with the severity of local economic hardship. A positive $\widehat{\gamma}$ implies that transfers generated larger electoral gains in municipalities facing higher inflation, consistent with a higher marginal valuation of in-kind transfers during periods of distress, i.e. $\widehat{\gamma}$ measures the crisis elasticity of the political return to transfers.

Table 8 presents estimates of equation (3). Panel A uses province-by-year fixed effects and panel B uses area-by-year fixed effects for consistency with the rest of the analysis. The key coefficient of interest is the triple interaction between milk beneficiaries, the 1973 election, and the measure of local crisis. Across specifications, $\widehat{\gamma}$ is positive and precisely estimated, indicating that the marginal electoral return to the milk program increases with the severity of experienced hyperinflation. The odd columns use a standardized continuous measure of hyperinflation and the even columns use an indicator for municipalities above the median of the crisis distribution. Columns 1-2 use all seven consumption categories, while columns 3-6 focus on the categories that explain most of the cross-sectional variation. Estimates are more precisely estimated when using province-by-year fixed effects, reflecting spatial correlation in consumption patterns.

Because all continuous variables are demeaned, the coefficient on Milk beneficiaries × 1973 captures the effect of the milk program in municipalities experiencing average hyperinflation, while the triple interaction measures how this effect varies with local hardship. The magnitude of $\widehat{\gamma}$ implies that a substantial share of the political returns of the milk program is concentrated in municipalities facing more severe inflation, consistent with transfers being more valuable when economic conditions deteriorate. In contrast, the coefficient on *Local crisis* × 1973 is not precisely estimated and does not follow a uniform pattern across specifications. As discussed in section II, voters were divided in their attribution of the crisis and, therefore, in this contexts the direct

electoral effect of local hyperinflation is theoretically ambiguous. The triple interaction therefore isolates whether government transfers were particularly effective in offsetting economic distress, rather than whether crisis exposure per se increased or decreased support for the UP.[33]

VI.2 Perceptions about the economic crisis

Having established that the economic crisis shaped the political profitability of transfers, we now examine whether perceptions about the origins of the crisis are consistent with this mechanism. Voters might perceive the downturn as triggered by government policies.[34] If that is the case, transfers may yield lower political returns because the government is perceived as addressing a self-induced crisis. Alternatively, voters might attribute the crisis to factors external to the government. In that scenario, transfers may be viewed as a "helping hand" during adverse conditions, increasing the scope for positive reciprocity in voting behavior (Finan and Schechter, 2012). While we cannot interpret perceptions causally, survey evidence allows us to assess whether patterns in individual-level data are consistent with this interpretation.

The combination of transfers and heterogeneous perceptions across voters generates clear empirical predictions. Let the political return of transfers be τ_1 when voters attribute the crisis to the government, and τ_2 when voters attribute it to external factors, with $\tau_1 < \tau_2$. Let $\alpha \in (0, 1)$ denote the share of voters attributing the crisis to the government, with the remaining $(1 - \alpha)$ attributing it externally.[35] Even if the crisis is partly policy-induced, the existence of voters attributing it to external factors implies that the average political return of transfers may remain positive, as long as τ_2 is sufficiently large. This framework motivates examining whether transfers are more strongly associated with support among individuals who blame external factors for the crisis.

We provide cross-sectional evidence using the Hamuy surveys conducted in late 1972. The data include 752 individuals in large cities and contain information on government support, experience of economic hardship, perceptions about the origins of the crisis, and views about government

[33]Table A12 further supports this interpretation using evidence from rationing boards. We split the cross-section of municipalities based on whether they are located in provinces above or below the median of the distribution of rationing boards, and find that the milk program is consistently linked to higher government support in provinces more severely affected by the crisis. The number of boards per municipality is unfortunately missing. Figure A11 shows that, if anything, the milk program increased government support by more in provinces where the crisis hit the hardest.

[34]We assume the existence of sophisticated and naïve voters in the economy. The former precisely link national policy to local economic conditions, while the latter do not. In addition, sophisticated voters could be optimizing intertemporally and internalizing the higher future taxes needed to balance the government budget.

[35]Previous work documents systematic attribution errors among voters (Bagues and Esteve-Bolart, 2016), suggesting that individuals may imperfectly assign responsibility for economic outcomes.

transfers. Government support is measured with an indicator variable. We use three indicators of crisis exposure: reporting worse economic conditions, reduced purchasing power (inflation), or scarcity of basic goods. Our proxy for transfers is an indicator for individuals who mention the milk program or related policies as preferred government initiatives. Perceptions are measured with an indicator for individuals who attribute scarcity to factors external to the government, such as hoarding or an uncooperative opposition. All specifications control for gender, age, and education.

Table 9 presents the results. Columns 1–3 show that individuals who value transfers and those who attribute the crisis to external factors are more likely to support the government, while self-reported exposure to economic hardship is negatively associated with support. Column 4 introduces the interaction between valuing transfers and attributing the crisis externally. The coefficient suggests that the positive association between transfers and government support is concentrated among individuals who blame external factors, while the relationship is weaker among those who blame the government. Columns 5–10 further split the sample by self-reported crisis exposure. Consistent with the previous section, the association between transfers and support is stronger among individuals who report worse economic conditions, inflation, or scarcity, particularly when they attribute the crisis externally.

We emphasize that these patterns should be interpreted cautiously. Perceptions about the crisis are likely endogenous to political preferences and exposure to government policies. Therefore, the survey evidence does not establish a causal channel. Rather, it provides suggestive support for the mechanism that transfers are politically more effective when voters attribute economic hardship to external factors instead of government policy. Together with the municipality-level evidence, these findings are consistent with the idea that both economic conditions and attribution shape the electoral returns to transfers during crises.

VII Conclusion

Transfers can be a powerful tool to sustain electoral popularity, particularly during economic crises. Studying the large-scale milk program implemented under the Salvador Allende government in Chile (1970–1973), we show that severe inflation and widespread scarcity of basic goods did not prevent the incumbent coalition from reaping political returns from an in-kind transfer. The program provided free milk to all preschool children through public hospitals and was associated with lower infant mortality. At the same time, it generated important electoral gains for the government. Women were explicitly targeted in the program's information campaigns and appear to have

responded with greater political support. More broadly, we find that the political profitability of transfers was higher in municipalities more severely affected by the crisis and among voters who did not attribute the downturn to government policies.

Despite the advantages of our context—including the scale of both the transfers and the crisis—our study has limitations. Although the milk program increased public spending, it was only one component of a broader policy agenda and not the primary driver of the macroeconomic collapse; other interventions, such as the nationalization of banks and firms, were fiscally more consequential. Moreover, the program embodied a tension between visible short-run costs and less visible benefits. The fiscal expansion was immediate and salient, while the health gains were meaningful but harder to observe in real time. The immediate consumption value of the in-kind transfer likely played a central role in shaping its political impact.

Taken together, our findings suggest that the electoral consequences of economic crises depend not only on material conditions but also on how governments intervene and how voters interpret those interventions. Transfers can cushion economic hardship and, under certain perceptions, translate into political support even in adverse macroeconomic environments. Understanding how redistribution, crisis severity, and voter attribution interact is therefore central to explaining why incumbents sometimes remain electorally resilient in the face of economic downturns.

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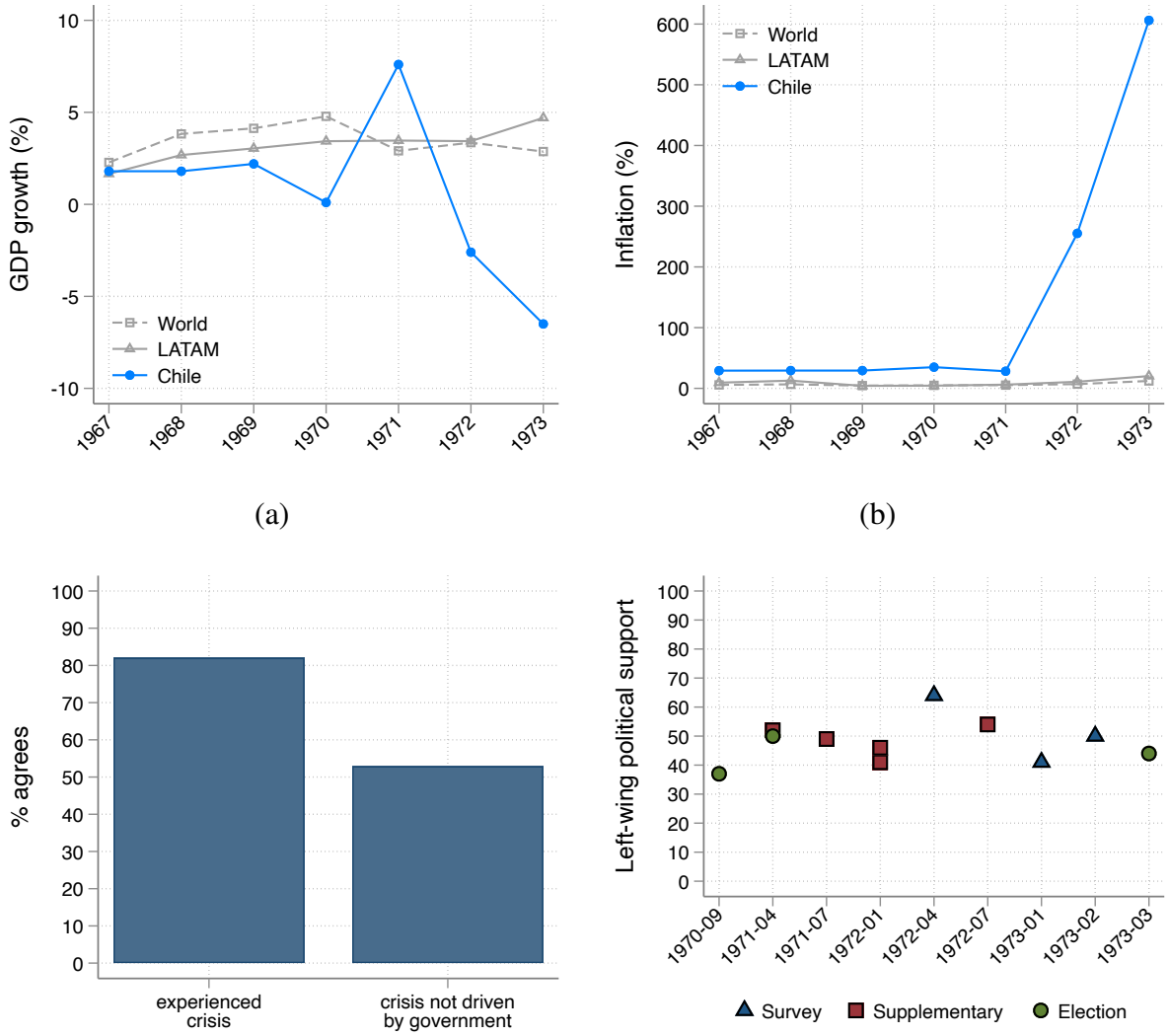
FIGURE 1: Macroeconomic conditions and government support in Chile, 1967-1973

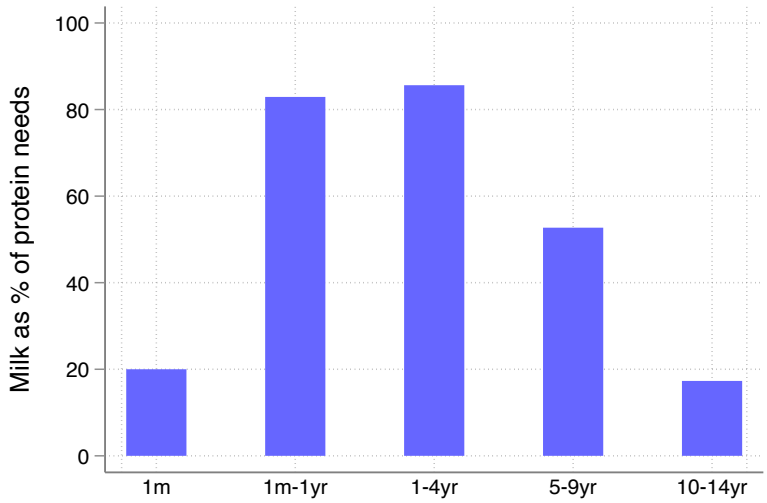


(a) (b)

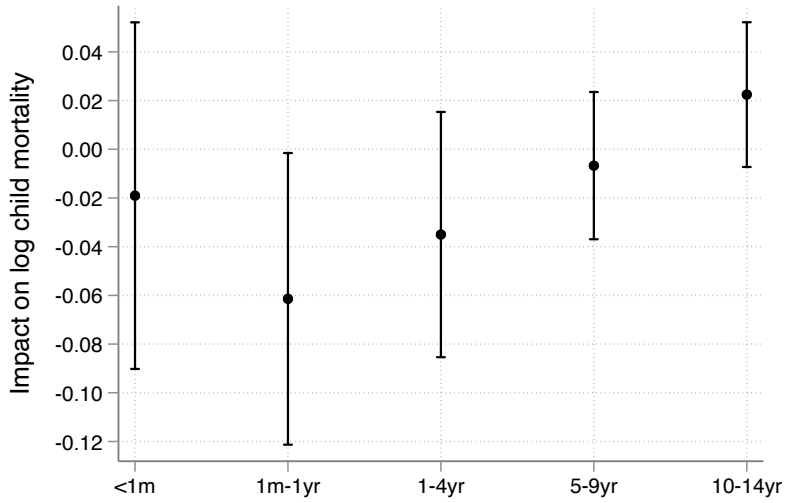
(c) Experience of crisis in late 1972 (d) Left-wing political support

Notes. Time series of macroeconomic variables in panels (a) and (b) are own construction using data from Díaz et al. (2016) and the World Bank. We observe 131 (103) countries with valid GDP (inflation) data in 1960-1973 (excluding Chile). Latin America contributes with 16 countries in panel (a) and 14 countries in panel (b). The experience of the crisis and perceptions about the origins of the crisis in panel (c) are responses to questions in the Hamuy surveys of late 1972, with 1,955 survey respondents in the three largest cities of the country where more than half of the population lives. Left-wing political support (vote shares or vote intention) in panel (d) is own construction using data from Fermandois (2013) and Navia and Osorio (2015a).

FIGURE 2: Protein requirements, milk distribution, and hospital mortality



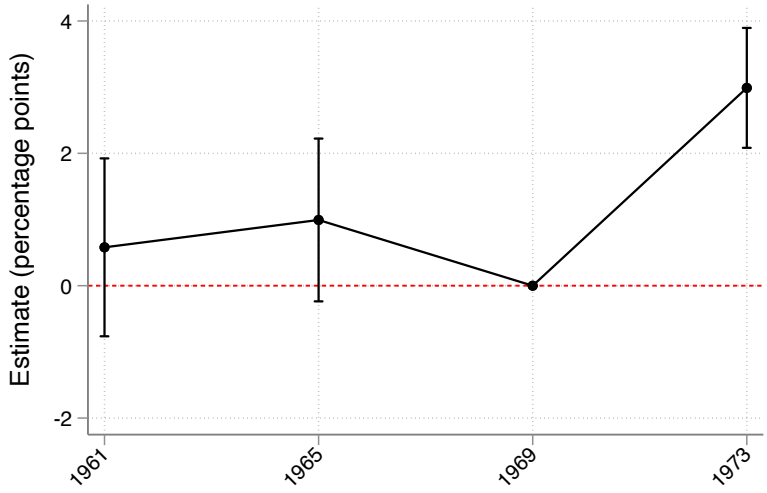
(a) Protein requirements



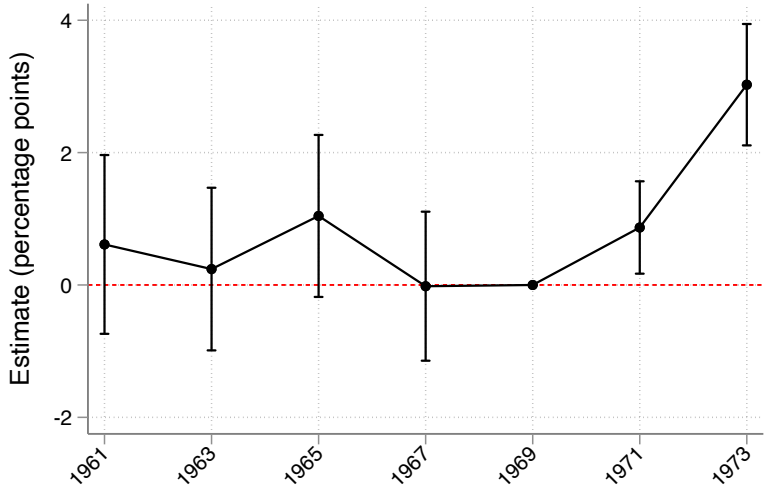
(b) Impact of milk on mortality by age

Notes. Panel (a) shows the share of protein requirements that were covered by the milk program across children of different ages. We use the same five age brackets that we observe in the hospital-level data. The milk program only partially covers the requirements of children younger than 1 month because most of them are being breastfed (Plank and Milanesi, 1973; Bader, 1976; Mardones-Santander, 1979). The decreasing role of the milk program for children older than 1 year is explained by the fading out of the program and the higher protein needs of older children. Protein requirements by age comes from World Health Organization (2002). Panel (b) shows five panel data estimates of the impact of (log) milk distribution on (log) infant mortality by age bracket, controlling by hospital and year unobservables with the use of fixed effects. The black dot represents the estimates and the vertical black line the 95 percent confidence interval.

FIGURE 3: Difference-in-differences estimates



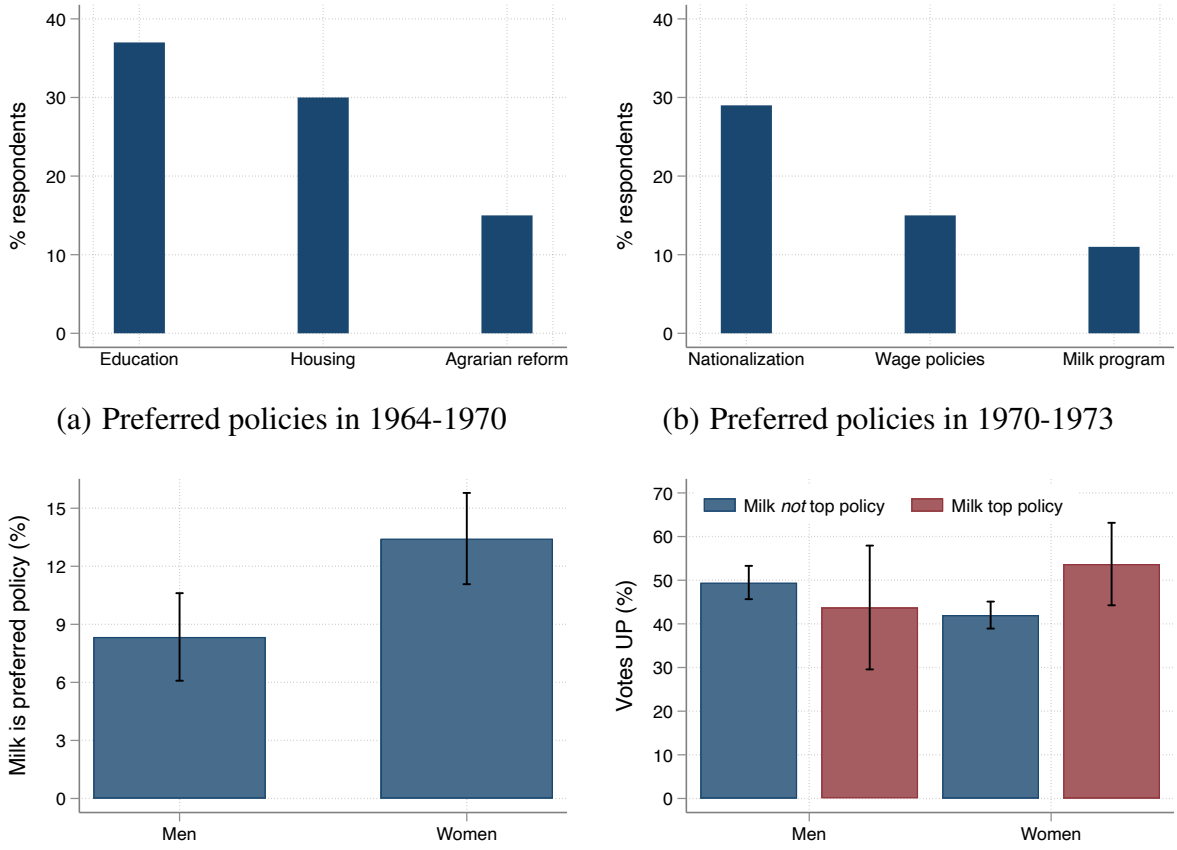
(a) Left-wing support in congress elections



(b) Left-wing support in congress and local elections

Notes. These figures present our difference-in-difference estimates for the change in support for the left-wing coalition (y-axis) between 1961 and 1973. Black dots represent point estimates and vertical lines the 95 confidence interval. The estimates are differences in voting patterns predicted by an increase of one standard deviation in the share of milk beneficiaries in 1970, as compared to 1969 (the omitted category). All regression specifications include municipality and year fixed effects. The joint p-value for the statistical significance of coefficients before 1969 is 0.15 in panel (a) and 0.21 in panel (b). Standard errors are clustered by municipality. Panel (a) uses as dependent variable the vote share of candidates affiliated to the communist and socialist parties in congress elections (1961, 1965, 1969, and 1973). Panel (b) uses the vote share of candidates affiliated to the communist and socialist parties in all congress and local elections (1963, 1967, 1971).

FIGURE 4: Salience of the milk program



(a) Preferred policies in 1964-1970

(b) Preferred policies in 1970-1973

(c) Milk is preferred policy (late 1972)

(d) Plans to vote UP (late 1972)

Notes. All figures are own construction based on surveys conducted by Eduardo Hamuy in the 1960s and 1970s. Panels (a) and (b) show the top three policies mentioned by respondents as answers to the open question "which one is your preferred policy implemented by the government?." The same question was asked both during the Eduardo Frei government (1964-1970) and during the Salvador Allende government (1970-1973). Panel (c) shows the percentage of men and women who mentioned the milk program as their preferred policy in 1972. The vertical black line represents the 95 percent confidence interval of the mean. Panel (d) shows the UP vote intention in 1972 in four different groups: men who mentioned the milk program as their preferred policy, women who also mentioned it, and the same two groups but who did not mention the milk program as preferred. Vertical black lines represent again the 95 percent confidence interval.

TABLE 1: What drives the distribution of milk at the local level?

	Dependent variable: Milk distribution					
	1971	1973				
	All	All	Infant	2-4yr	5-14yr	Pregnant
Panel A: By area	(1)	(2)	(3)	(4)	(5)	(6)
Milk beneficiaries	204***	220***	94***	115***	-8	19***
	(47)	(52)	(18)	(28)	(12)	(3)
Allende vote share in 1970	27	12	3	7	2	-0
	(30)	(31)	(12)	(14)	(8)	(3)
Observations	55	55	55	55	55	55
R-squared	0.736	0.755	0.787	0.783	0.139	0.771
Controls	Y	Y	Y	Y	Y	Y
Avg. dependent variable	350.8	554.3	137.9	167.7	32.96	29.84
p-value *not* beneficiaries	0.58	0.51	0.49	0.55	0.26	0.10
	Dependent variable: Milk distribution in 1971					
Panel B: By municipality	All		0-1yr		2-4yr	
Milk beneficiaries	86**	87**	29**	30**	43**	44**
	(35)	(35)	(12)	(12)	(17)	(19)
Allende vote share in 1970	11	21	3	7	7	10
	(10)	(18)	(3)	(6)	(6)	(10)
Observations	187	187	187	187	187	187
R-squared	0.483	0.634	0.483	0.639	0.450	0.607
Controls	Y	Y	Y	Y	Y	Y
Area fixed effects	N	Y	N	Y	N	Y
Avg. dependent variable	95.81	95.81	32.72	32.72	51.14	51.14
p-value *not* beneficiaries	0.70	0.30	0.82	0.41	0.69	0.28

Notes. Estimates from cross-sectional regressions at the area (panel A) or municipality (panel B) level. Regression specifications include the following set of predictors, all measured before the UP government took power: share of rural population, logarithm of population, illiteracy rate, share of population with more than 6 years of schooling, log distance to the regional capital, and houses per capita. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE 2: Milk distribution and children hospital mortality, 1968-1975

Dep. variable: Log children deaths over 1,000 children in local population					
	0-4 yrs old			5-9 yrs	10-14 yrs
	(1)	(2)	(3)	(4)	(5)
Log milk distributed	-0.055**	-0.049**	-0.058**	-0.007	0.022
	(0.028)	(0.024)	(0.027)	(0.015)	(0.015)
Observations	813	813	813	813	813
Hospitals	157	157	157	157	157
Hospital fixed effects	Y	Y	Y	Y	Y
Year fixed effects	Y	N	N	N	N
Area-year fixed effects	N	Y	Y	Y	Y
Medical inputs	N	N	Y	Y	Y
Avg. dependent variable	2.508	2.508	2.508	0.254	0.225

Notes. This table presents panel data estimates for the association between the distribution of milk (in kilograms) and children hospital mortality rates. All regressions include hospital and year (or the more granular area-by-year) fixed effects. We use the hyperbolic sine transformation for the dependent variable because 12 (of 813) hospital-year observations are equal to zero. We use the (log) total amount of milk distributed (in kilograms) as main right-hand side variable. Columns 1-3 use as dependent variable the hospital mortality rate of 0-4 year old children. Columns 4-5 use the hospital mortality rate of older children (5-9 and 10-14 years old) which we interpret as placebo check because those children did *not* receive milk at hospitals. We use as denominator the number of children in the corresponding age bracket (i.e., 04, 5-9, 10-14) in the municipality where the hospital is located. In addition, columns 3-5 include a set of time-varying control variables "Medical inputs" which include the number of physicians, the number of hours worked by physicians, the number of nurses, and the number of home visits done by nurses. Data for the 1972 and 1974 years is unfortunately unavailable and thus the unbalanced panel dataset is composed by 157 hospitals observed in 6 periods of time. Standard errors in parenthesis are clustered by hospital. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE 3: Milk eligibility and voting patterns, cross-sectional evidence

Panel A	Dependent variable: Left-wing vote share in 1973					Turnout 1973
	(1)	(2)	(3)	(4)	(5)	(6)
Milk beneficiaries	2.24**	2.04***	2.00***	2.35***	2.52***	0.02
	(0.89)	(0.42)	(0.46)	(0.70)	(0.80)	(1.40)
Municipalities	307	307	307	307	307	307
R-squared	0.046	0.606	0.817	0.857	0.863	0.900
Province fixed effects	N	N	Y	N	N	N
Area fixed effects	N	N	N	Y	Y	Y
1970 election controls	N	Y	Y	Y	Y	Y
Other controls	N	N	N	N	Y	Y
Avg. dependent variable	34.87	34.87	34.87	34.87	34.87	46.42

Panel B	Dependent variable: Left-wing vote share				Turnout	
	1971 Municipal	1969 Congress	1967 Municipal	1965 Congress	1969 Congress	1965 Congress
	(1)	(2)	(3)	(4)	(5)	(6)
Milk beneficiaries	1.14	0.40	-0.90	-0.59	0.41	-0.97
	(0.92)	(1.46)	(0.87)	(0.97)	(0.45)	(1.01)
Municipalities	307	306	305	304	306	304
R-squared	0.837	0.819	0.880	0.857	0.987	0.958
Area fixed effects	Y	Y	Y	Y	Y	Y
All controls	Y	Y	Y	Y	Y	Y
Avg. dependent variable	38.60	27.96	28.03	22.63	31.34	30.43

Notes. This table presents cross-sectional estimates of the relationship between the share of the local population who are eligible to become milk beneficiaries and left-wing vote share in elections between 1965 and 1973. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Panel A shows the empirical relationship with vote shares and turnout in 1973. The '1970 election' controls include vote shares for the left-wing (Allende) and the right-wing (Alessandri) candidates. 'Other controls' include: (log) population, (log) distance to the province capital, share of the population living in rural areas, and share of the population with more than 6 years of education. Panel B shows the same empirical relationship in the preceding years. 'All controls' include the same 'Other controls' as in panel A plus vote shares in the corresponding previous election (e.g. 1967 vote shares for column 1, 1965 vote shares in column 2, etc.). Significance level: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered by municipality.

TABLE 4: The milk program and support for the left-wing coalition

	Dependent variable:				
	Left-wing vote share				Turnout
	(1)	(2)	(3)	(4)	(5)
Panel A: Congress elections					
Milk beneficiaries × 1973	2.48***	2.06***	2.08***	1.91**	-0.02
	(0.39)	(0.46)	(0.72)	(0.97)	(1.67)
Observations	1224	1224	1224	1224	1224
Avg. dependent variable	27.01	27.01	26.82	26.82	31.74
Panel B: Congress and local elections					
Milk beneficiaries × 1973	2.57***	2.31***	2.46***	1.92**	0.55
	(0.35)	(0.40)	(0.73)	(0.94)	(1.51)
Observations	2143	2143	2143	2143	2143
Municipalities	307	307	307	307	307
Avg. dependent variable	28.22	28.22	28.06	28.06	31.67
Municipality fixed effects	Y	Y	Y	Y	Y
Year fixed effects	Y	N	N	N	N
Province-year fixed effects	N	Y	N	N	N
Area-year fixed effects	N	N	Y	Y	Y
Controls × year fixed effects	N	N	N	Y	Y

Notes. This table presents difference-in-differences estimates for the relationship between milk beneficiaries and the left-wing vote share in 1973. We observe 307 municipalities in four congress elections (1961, 1965, 1969, and 1973) and three local elections (1963, 1967, and 1971). 'Left-wing vote share' is defined as votes for communist and socialist candidates over the total number of votes in that election. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). 'Controls' include (log) population, (log) distance to the province capital, share of the population living in rural areas, and share of the population with more than 6 years of education. There are 25 provinces and 55 areas in the country. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE 5: Other policies implemented by the UP government

	Dependent variable: Left-wing vote share										
Policy control:	Land reform	Trade protection	Nationalizations	Share of mining workers	Share agricult. workers	Distance closest university	Illiteracy rate	Rural-urban migration	Hospital inputs	Female LFP	Selected policies (LASSO)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Milk beneficiaries × 1973	1.50**	1.96***	2.09***	2.14***	2.14***	2.62***	1.71**	1.94***	2.02**	2.16***	2.27***
	(0.71)	(0.72)	(0.75)	(0.72)	(0.73)	(0.83)	(0.74)	(0.72)	(0.80)	(0.71)	(0.79)
Policy × 1973	1.31**	-1.76	0.08	-0.97	-0.23	-0.66	0.99**	-0.84	-0.79	0.53	
	(0.59)	(1.12)	(0.57)	(0.70)	(0.66)	(0.67)	(0.47)	(0.57)	(0.50)	(1.11)	
Observations	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224
R-squared	0.940	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.940
Municipality fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Avg. dependent variable	26.82	26.82	26.82	26.82	26.82	26.82	26.82	26.82	26.82	26.82	26.82
Municipalities	307	307	307	307	307	307	307	307	307	307	307

Notes. Each column reports a difference-in-differences estimate using 307 municipalities observed in four Congress elections (1961, 1965, 1969, and 1973). Columns 1–10 add one policy exposure (interacted with 1973) at a time. Column 11 includes the set of policies selected via LASSO from columns 1–10 (all interacted with 1973). The LASSO-selected policies are the distance to closest university campus (column 6) and the illiteracy rate (column 7). All policy variables and milk beneficiaries are standardized. Municipality and area-year fixed effects are included in all specifications. Standard errors are clustered by municipality. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE 6: Instrumental variables estimates based on family planning program

	First-stage		Two-stage least squares			
Dependent variable:	*Milk beneficiaries*		*Left-wing vote share*		*Turnout*	
Panel A: Congress elections	(1)	(2)	(3)	(4)	(5)	(6)
Log distance closest IUDs × 1973	0.22***	0.20***				
	(0.02)	(0.03)				
Milk beneficiaries × 1973			2.94***	3.23**	1.34	1.43
			(1.12)	(1.38)	(1.45)	(2.04)
Log distance closest milk hospital × 1973		0.05		-0.19		-0.06
		(0.03)		(0.41)		(0.76)
Observations	1224	1224	1224	1224	1224	1224
Avg. dependent variable			26.82	26.82	31.74	31.74
F-test excluded instrument			97.21	51.37	97.21	51.37
Panel B: Congress and local elections						
Log distance closest IUDs × 1973	0.22***	0.20***				
	(0.02)	(0.03)				
Milk beneficiaries × 1973			3.75***	3.85***	1.56	1.76
			(1.05)	(1.28)	(1.35)	(1.89)
Log distance closest milk hospital × 1973		0.05		-0.06		-0.13
		(0.03)		(0.40)		(0.69)
Observations	2143	2143	2143	2143	2143	2143
Avg. dependent variable			28.06	28.06	31.67	31.67
F-test excluded instrument			97.08	51.28	97.08	51.28
Municipality fixed effects	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y

Notes. This table presents the first-stage (columns 1-2) and second-stage (columns 3-6) of an instrumental variables estimation. Panel A uses panel data for 307 municipalities observed in four congress elections (1961, 1965, 1969, 1973) and panel B adds three local elections (1963, 1967, 1971). The excluded instrument is the (log) distance to the closest hospital delivering contraceptives (IUDs) for free after 1966. The family planning program was funded by the Rockefeller foundation to control population growth. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old) in 1970. Specifications in even columns control for the distance to the closest health center delivering free milk. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE 7: Milk beneficiaries and votes by gender

	Dependent variable:			
	in *male* voting booths		in *female* voting booths	
	Left-wing vote share	Turnout	Left-wing vote share	Turnout
Panel A: Difference-in-differences	(1)	(2)	(3)	(4)
Milk beneficiaries × 1973	1.74***	3.42*	2.53***	0.48
	(0.63)	(1.94)	(0.56)	(2.08)
Panel B: Two-stage least squares				
Milk beneficiaries × 1973	2.07	3.14	3.37***	-0.22
	(1.35)	(1.99)	(1.12)	(2.13)
Observations	1211	1211	1211	1211
Municipality fixed effects	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y
Avg. dependent variable	31.78	34.52	24.58	29.09
Municipalities	307	307	307	307
F-test excluded instrument	52.16	52.16	50.17	50.17

Notes. This table presents difference-in-differences estimates for the effect of milk beneficiaries on 1973 electoral outcomes by gender. We observe male and female votes separately in 303 municipalities and four congress elections (1961, 1965, 1969, and 1973). 'Milk beneficiaries' is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Panel A presents simple difference-in-differences estimates. Panel B uses the distance to hospitals delivering intra-uterine devices (IUDs) in the late 1960s as exogenous variation in the number of milk beneficiaries in 1970 while controlling for the distance to facilities delivering milk. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE 8: Local hyperinflation shapes the political profitability of transfers

	Dependent variable: Left-wing vote share					
	Local crisis measured by hyperinflation in...					
	All goods		*Fruits*		*Cereals*	
Panel A	(1)	(2)	(3)	(4)	(5)	(6)
Milk beneficiaries × 1973 × *Local crisis*	2.06***	5.04***	2.39***	4.84***	1.83***	5.09***
	(0.68)	(1.32)	(0.79)	(1.47)	(0.66)	(1.17)
Milk beneficiaries × 1973	0.91	-1.97	0.79	-2.07	1.40**	-2.05*
	(0.67)	(1.30)	(0.72)	(1.44)	(0.57)	(1.11)
Local crisis × 1973	-0.37	2.02	-1.26	-2.26	1.02	2.89
	(1.79)	(2.63)	(0.93)	(1.91)	(1.17)	(1.89)
Observations	1196	1196	1196	1196	1196	1196
Municipalities	307	307	307	307	307	307
Municipality fixed effects	Y	Y	Y	Y	Y	Y
Province-year fixed effects	Y	Y	Y	Y	Y	Y
Avg. dependent variable	26.79	26.79	26.79	26.79	26.79	26.79
Panel B						
Milk beneficiaries × 1973 × *Local crisis*	1.14*	2.09	1.22*	3.26**	0.94	3.30**
	(0.62)	(1.57)	(0.69)	(1.50)	(0.72)	(1.64)
Milk beneficiaries × 1973	1.76**	0.68	1.71**	-0.29	1.93**	-0.20
	(0.75)	(1.27)	(0.73)	(1.17)	(0.75)	(1.35)
Local crisis × 1973	2.21	-1.84	0.64	-1.17	0.14	0.33
	(3.03)	(4.81)	(1.32)	(3.57)	(1.45)	(3.06)
Observations	1196	1196	1196	1196	1196	1196
Municipalities	307	307	307	307	307	307
Municipality fixed effects	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y
Avg. dependent variable	26.79	26.79	26.79	26.79	26.79	26.79

Notes. This table presents difference-in-differences evidence for the importance of hyperinflation in shaping the political profitability of the milk program. All regression specifications include *Milk beneficiaries* by municipality as exposure to the milk program interacted by an indicator for the 1973 Congress Election, and a triple interaction with *Local crisis* to measure heterogeneous effects. We measure *Local crisis* as official price changes between September 1970 and February 1973 across seven product categories multiplied by cross-sectional variation in consumption patterns in the same categories by municipality. Columns 1-2 use all seven product categories and the remaining columns focus on sub-categories. We use a (standardized) continuous measure of *Local crisis* in odd columns and indicator if the municipality is above the median of the cross-sectional distribution in even columns. Panel A presents results from specifications with province-by-year fixed effects and Panel B with area-by-year fixed effects. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE 9: Attribution of the economic crisis shapes the effect of transfers

	Dependent variable: Indicator for supporters of the Allende government									
					Individuals who have experienced *X* during this government:					
					Worse economic conditions		Inflation		Scarcity of basic goods	
	All individuals in the late 1972 survey				Yes	No	Yes	No	Yes	No
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Perceives crisis as external × Values transfers				0.22**	0.44**	0.17	0.49***	0.12	0.35***	-0.15
				(0.10)	(0.19)	(0.13)	(0.16)	(0.14)	(0.11)	(0.16)
Values government transfers	0.19***			-0.01	0.07	-0.04	-0.01	-0.06	-0.06	0.20
	(0.05)			(0.09)	(0.12)	(0.12)	(0.12)	(0.13)	(0.10)	(0.15)
Perceives crisis as external		0.36***		0.32***	0.12	0.28***	0.08	0.31***	0.28***	0.25***
		(0.03)		(0.04)	(0.07)	(0.04)	(0.06)	(0.05)	(0.04)	(0.07)
Experienced worse economic conditions			-0.26***							
			(0.04)							
Experienced inflation			-0.29***							
			(0.04)							
Experienced scarcity of basic goods			-0.18***							
			(0.03)							
Individuals	752	752	752	752	219	533	323	429	561	191
Covariates	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Average of dependent variable	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60

Notes. This table presents cross-sectional survey evidence for the importance of perceptions about the origin of the crisis. Each column presents estimates from a different regression. Columns 1-4 use all individuals, while columns 5-10 split the sample among those who state to have experienced one of the dimensions of the economic crisis and those who have not. In all columns the dependent variable is an indicator that takes the value one if individuals express some level of support for the Salvador Allende government. *Values government transfers* is an indicator for individuals who value the milk program and similar policies. We use three measures for the experience of economic crisis: *Inflation* is an indicator for individuals who state that their income allows them to buy fewer goods, *Scarcity of basic goods* is an indicator for individuals who state that there have experienced more scarcity of goods in the last 12 months, and *Worse economic conditions* is an indicator for individuals who state that the economic condition of their family has worsened. *Perceives crisis as external* is an indicator for individuals who state that the scarcity of goods is explained by an uncooperative opposition or hoarding, i.e. not by government policies. All regressions control for a gender indicator, an indicator for individuals younger than 40 years old, an indicator for individuals between 40 and 60 years old, an indicator for individuals with college education, and an indicator for individuals with high school education. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

ONLINE APPENDIX

Transfers and Government Support in Times of Economic Crisis

Felipe González *Mounu Prem*

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A Data Appendix

A1 Country-level data

Panels (a) and (b) in Figure 1 compare inflation and GDP growth for the Chilean economy with the same macroeconomic variables for other countries. Both panels use two comparison groups: (i) the average across all countries in the world with available data (group "World"), and (ii) the average across all countries in Latin America with available data (group "LATAM"). Overall, the high inflation and lower economic growth are unique to the Allende government and not driven by international trends. This subsection explains the data sources we use to construct these figures.

Inflation. We use country-level inflation (changes in consumer price index) data from Our World in Data, which collects and harmonizes data from the World Development Indicators of the World Bank. The panel dataset is unbalanced from 1960 until 2021. Inflation data for Chile is only available since 1970, and thus we use inflation statistics since 1960 from Díaz et al. (2016). Given our interest in the Salvador Allende government (1971-1973), we restrict attention to the balanced panel of 66 countries observed annually in the 1960-1973 period. When constructing averages, we use data for 65 countries (World, excluding Chile) and 14 countries (LATAM, excluding Chile).

GDP per capita. We use country-level GDP per capita growth data also from Our World in Data, which collects and harmonizes data from the World Development Indicators of the World Bank. The panel dataset is unbalanced from 1961 until 2021. Given our interest in the Salvador Allende government (1971-1973), we restrict attention to the balanced panel of 99 countries observed annually in the 1961-1973 period. When constructing averages across countries, we use data for 98 countries (World, excluding Chile) and 16 countries (LATAM, excluding Chile).

A2 Municipality-level data

Socioeconomic and geography. We measure the characteristics of municipalities using census variables. Although the census lacks income data, the number of houses per capita and the average years of education are likely to be strongly correlated with it at the municipality level. To measure the local economic structure, we use the share of workers in the agricultural sector and the mining industry—the most important economic activities—and the share of the population economically active. To track the newly enfranchised in the 1970s, we use local illiteracy rates. Other important variables describing the local population include the share of women (49%) and the share living in rural areas (28%). We use the 1960 census in a similar way when we need to track changes in these variables. When we need some variable that is unreported in these volumes but we know it is available in the census, we use the 10 percent individual-level sample published by IPUMS International. Besides differences in the census, municipalities also differed in their infrastructure and how connected they were to the rest of the country. We geo-coded the centroid of each municipality, together with the location of existing airports, maritime ports, military bases, and churches before 1970 (Bautista et al., 2023). Euclidean distances from municipalities to critical infrastructure allow us to incorporate the geographic dimension into our analysis.

Policies. Municipalities were also differentially exposed to other policies implemented during the UP government. We can measure the exposure to mining and agricultural policies by using the share of workers in those sectors. Similarly, the international price of agricultural products and copper created income effects that we can measure with the same variables. Enrollment in tertiary education increased significantly between 1970 and 1973 (Bautista et al., 2025), which we can track by using the location of university campuses. The protection of local economic activity to international trade and additional expropriations in the context of the agrarian reform can be measured using data from previous research (Cuesta et al., 2015; González and Vial, 2021). Finally, we created a novel measure for the local exposure to the nationalization program using annual reports for firms reporting to Chile's regulatory agency. For each firm, the reports reveal the establishments and their location. We digitized the locations and then use the ones from firms that were nationalized to construct the local exposure to the nationalization program.

A3 Hamuy surveys

Inspired by Professor Paul Lazarsfeld while studying in Columbia, chilean sociologist Eduardo Hamuy conducted the first large-scale surveys using probabilistic sampling in Chile (Hamuy et al., 1958; Navia and Osorio, 2015a). The surveys, conducted by the sociologist Eduardo Hamuy more than two times per year between October 1957 until February of 1973, offer an unusually rich view of how Chileans perceived politics and policies almost in real time. The 45 survey waves were conducted in the three largest cities—with more than half the population in 1970—and accurately predicted elections during this period, including the one in 1970. Most waves have hundreds of respondents per city, with some reaching more than one thousand respondents. The data is publicly available and can be found in the FLACSO Library or the Roper Center.

Figure 4 uses four surveys conducted by Eduardo Hamuy. Panel (a) uses the 625 responses in the wave conducted in March 1970 in Santiago. The question we use asked "Based on your own judgement: which is the best policy implemented by the Eduardo Frei government?" The president at the time of the survey was Eduardo Frei. Panel (b) uses the 1,800 responses in three surveys conducted in 1972 in the cities of Santiago, Valparaiso, and Viña del Mar. We use two questions in which people were asked the same question "Based on your own judgement: which is the best policy implemented by the Salvador Allende government?." The president at the time of the survey was Salvador Allende. Panel (c) simply disaggregates the 11 percent who mentioned the milk program during the Salvador Allende government by gender. Panel (c) uses the same three surveys from late 1972 surveys but now examines vote intention by gender and preferred policy.

Table 9 uses the Hamuy survey from February 1973 to study support for the government as a function of the experience of the crisis, relationship with transfers from the government, and perceptions about the crisis. Three questions in the survey ask about the experience of the crisis: (i) economic conditions ("In the last 12 months, has the economic situation of your family worsened or improved?"), (ii) inflation ("After the last readjustment, do you think your salary has the same purchasing power?"), and (iii) scarcity of basic goods ("Regarding the scarcity of basic goods, do you think it has increased, decreased, or remains similar?"). One question asks about perceptions of the crisis ("Why do you think there is scarcity of basic goods?"). One question asks about support for Salvador Allende ("How much do you support Salvador Allende?"). And finally, two

questions ask about the top two government policies preferred by the respondent, some of which are related to transfers ("Which are the best policies implemented by the government?").

B Additional Empirical Tests

B1 Sensitivity to the parallel trends assumption

We begin with a simple analysis proposed in applied research which in our case statistically supports the absence of pre-trends in our research design. Figure 3 already showed visually the absence of pre-trends in the difference-in-differences analysis. We can then estimate the trend in our outcome of interest (left-wing vote share) for the share of milk beneficiaries in the pre-treatment period (1961-1969), a method used by, for example, Muralidharan and Prakash (2017). In the case of panel (a), when we only use Congress elections, we estimate a statistically insignificant trend of -0.05 (s.e. 0.07, p-value 0.52). In the case of panel (b), when we pool Congress and Local elections, we also obtain a statistically insignificant trend of -0.07 (s.e. 0.06, p-value 0.24).

More recent methods also support the absence of meaningful pre-trends as results are robust to small deviations from the parallel trends assumption. Figure A12 presents the 95% confidence interval for the method suggested Rambachan and Roth (2023) that allows for linear ($M = 0$) or non-linear deviations ($M > 0$) of the parallel trends assumption. Reassuringly, the results remain statistically significant. Following Roth (2022), we define the maximum M using the trend that has the 80% against the null hypothesis of no pre-tend. Moreover, using that pre-trend, we compute the bias in the 1973 coefficient. For the sample of only congress elections, the trend is 0.96, which implies a bias of 32% when compared to our baseline estimate, and a bias of 45% if we adjust for pre-testing bias, while for the extended sample the trend is 0.47, which implies a bias 31% and a bias of 44% if we adjust for pre-testing bias. Finally, we implement Dette and Schumann (2024) equivalence test by finding the minimal bound that would lead to rejection of the null hypothesis of non-negligible pre-trend differences at 5% (10%). In particular, we use the average of the pre-Allende coefficients to construct the test. In particular, we use the average of the pre-Allende coefficients to construct the test. We find that the minimal bound is 1.40 (1.19), thus representing a 46% (39%) of the coefficient for the 1973 election in panel (b) of Figure 3.

B2 Additional robustness checks

Difference-in-differences with a continuous treatment. Our results are robust to estimators that allow for heterogeneous treatment effects across different treatment intensities. Following Callaway et al. (2024), we re-estimate our baseline model by discretizing the continuous treatment into groups defined by the empirical distribution of milk beneficiaries. Table A13 reports the corresponding estimates using terciles and quartiles, as well as a non-parametric kernel estimator. Under the parallel trends assumption discussed in section V.1, the average treatment effect on the treated (ATT) ranges from 3 to 4 percentage points. Under the stronger parallel trends assumption required to identify the average causal response (ACR), the estimated effects range between 1.7 and 2.1 percentage points, closely aligning with our baseline estimates in Table 4.

Appendix Figure A13 plots the group-time average treatment effects underlying the tercile (panel A) and quartile (panel B) specifications. Consistent with our main event-study evidence, we do not observe differential pre-trends across treatment intensity groups prior to 1973. The dynamic patterns reinforce the validity of the identifying assumptions and confirm that the positive effects emerge only in the treated period.

Specification checks. Our results are robust to alternative specification choices related to weighting and the potential dependence of observations in the panel. Column 1 in Table A14 reports estimates from a two-period specification that collapses all pre-1970 elections into a single average, addressing concerns about autocorrelation in panel outcomes. Column 2 shows that results are similar when weighting by the local adult population, and column 3 presents unweighted estimates. To assess potential spatial dependence across municipalities, columns 4–6 introduce alternative geographic controls. Specifically, we control for Moran eigenvectors (column 4), polynomial functions of latitude and longitude (column 5), and measures of geographic centrality (column 6). Across all cases, the estimated effect of milk beneficiaries remains stable in magnitude and statistically significant.

Control variables. Our results are also robust to the selection of control variables in the difference-in-differences analysis. Column 7 in Table A14 applies the post-double-selection LASSO procedure of Belloni et al. (2014) to choose socioeconomic and demographic controls from a larger set of potential covariates. The estimated effect of milk beneficiaries remains similar, indicating that our findings are not driven by ad hoc control selection. Column 8 adds the share of children aged 10–14 interacted with 1973. Because children in this age group were not eligible for the milk program, this specification serves as a placebo test: the coefficient is small and statistically insignificant, consistent with the view that the electoral effects are specific to eligible beneficiaries. Finally, column 9 controls for exposure to cattle farming using production data from the 1965 agricultural census, addressing the possibility that local milk-related industries influenced political support. The coefficient on cattle farming is statistically insignificant, and the main estimate is unaffected.

Matching difference-in-differences. Our results are robust to the use of alternative estimation methods. We selected the main empirical methodology, but the context allows to implement alternative methods. Table A15 shows similar results using five matching procedures embedded in the difference-in-differences framework. We begin by showing the robustness of our main result to discretizing the continuous treatment (milk beneficiaries) into an indicator treatment that takes the number of one for municipalities above the median of the distribution and zero for those below the median. Column 1 shows that treated municipalities voted 3 percentage points more for left-wing parties in 1973 than other municipalities. Columns 2-6 present the results for the five matching techniques. To predict the treatment indicator, we use two complementary methods. Panel A selects the best predictors of the treatment using a machine-drive algorithm (Belloni et al., 2014) which delivers the following variables: share of rural population, share of mining workers, and the number of churches per 1,000 inhabitants. Panel B uses two variables related to women, the share of women and the share of married women, which directly addresses other policies that could have affected women and changed their voting patterns. Overall, the enhanced difference-in-differences with multiple matching techniques always delivers point estimates between 1.8 and 4.3 percentage points. Column 2 simply controls for a set of indicators based on the terciles of the empirical dis-

tribution of the propensity score of milk beneficiaries interacted with year fixed effects. Column 3 follows Crump et al. (2009) and truncates the sample based on the propensity score using the optimal cut-off which are 11% in panel A and 14% in panel B. Column 4 replaces the sharp truncation in the previous column by a decaying function, as suggested by Yang and Ding (2018). Columns 5 and 6 present alternative reweighing estimators using the propensity score and model suggested by Abadie (2005) and the doubly-robust method proposed by Sant'Anna and Zhao (2020).

The main result is also robust to the use of the synthetic difference-in-differences methodology proposed by Arkhangelsky et al. (2021). We present results in Figure A14. To apply the method, we discretize the continuous treatment into an indicator that takes the value of one for municipalities in the top quartile of the distribution of beneficiaries and call that group the treatment group. The remaining municipalities constitute the pool of potential controls. The statistical method then finds the control group using the best linear combination of municipalities in the donor pool that delivers parallel trends in the outcome before the treatment period. The years 1961-1969 are the pre-treatment period and the years 1971-1973 are the treatment period. To increase the efficiency of the procedure, we pool local and congress elections. Panel (a) shows parallel trends between treatment and control groups between 1961 and 1969. The vote share increases by 1 percentage point in treated municipalities in the 1971 local election and by 2.3 percentage points in the 1973 congress election, the latter effect being statistically significant a the 5% level with a confidence interval of $[0.14, 4.53]$. Panel (b) shows the difference between both groups, where the parallel trends before the treatment and the separation during the treatment can be seen more clearly.

Influential observations. Our results are robust to removing different small sets of potentially influential observations. Figure A15 shows that results are *not* driven by specific provinces, areas, or groups of municipalities with particularly large populations or rural areas. We also assess the sensitivity of our main result to the removal of a small fraction of the dataset. In particular, we use the approximate maximum influence perturbation approach proposed by Broderick et al. (2023). Following that method, we compute the smallest set of observations that changes the statistical significance and sign of our main estimate. Overall, based on the interpretation of the authors of the method, we conclude that our results are robust to removing a relatively large set of observations from the data. More precisely, we would need to drop more than 17% of the dataset to change the sign and significance of our main result, which is among the largest numbers in the set of results that were scrutinized by the authors in their analysis of articles published in economics.

Alternative explanations. Our results are robust to alternative explanations related to state capacity affecting milk transfers and political preferences. Remote locations might be harder to reach, affecting vote shares and the implementation of programs. Historians suggest that this is unlikely to be a concern because the milk program entailed a tremendous state effort to reach beneficiaries regardless of their location: "[the milk program was] effectively the first extension of the modern state, only later followed by infrastructure" (Goldsmith Weil, 2017, p. 94). Consistent with these documented efforts from the state, Table A16 shows that results are similar when controlling for proxies of state and non-state capacity (columns 1-3) and measures of remoteness (columns 4-7).

Our results are also similar when accounting for the age structure of the local population and the presence of young adults with children. In this case, we worry that the share of milk beneficiaries is likely to be correlated with the political preferences of young adults. Fortunately, Figure A6 shows that our findings remain similar when controlling for different definitions of the share of

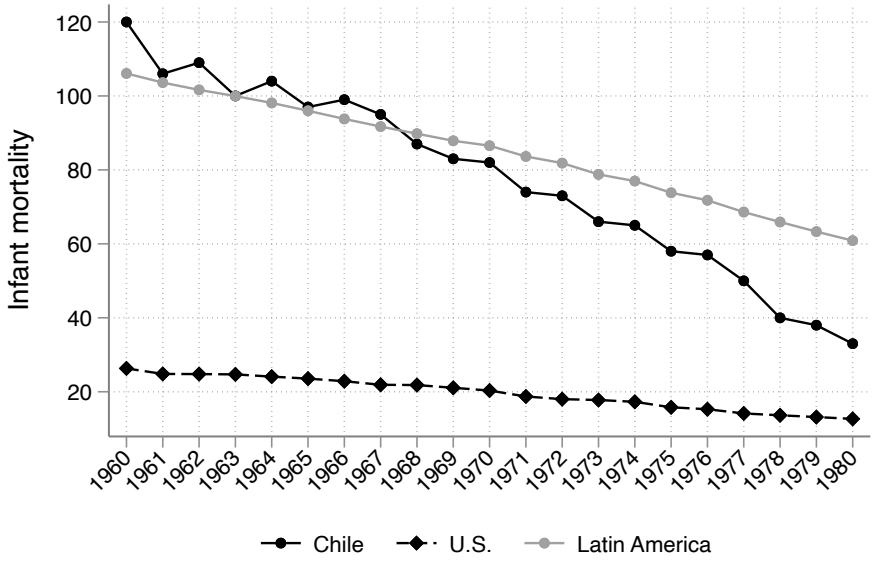
young adults in the local population (e.g. share of population who are 25-30 years old). The results remain similar when controlling for the share of the population in other age brackets (e.g. share of the population who are 31-35 years old). Additionally, Table A17 further supports that the preferences of young adults with children are unlikely to be a confounder of our results by using our difference-in-differences strategy with a panel dataset of 89 departments observed in the same 4 Congress elections (1961, 1965, 1969, 1973). The advantage of using 89 departments (instead of 307 municipalities) is that we observe the share of 0-4 year old children in 1960 in the IPUMS samples. Then, we can test for the potentially different preferences of (1) young adults with slightly older children in 1973, and (2) young adults with children of similar age to milk beneficiaries but before Salvador Allende arrived to power. Columns 1-3 confirm that the share of 0-4 year old children is unrelated to higher left-wing vote share in 1973, and columns 4-5 confirm that in places with more young adults with children in 1963 and 1965 the left-wing obtained a similar vote share.

B3 Additional results

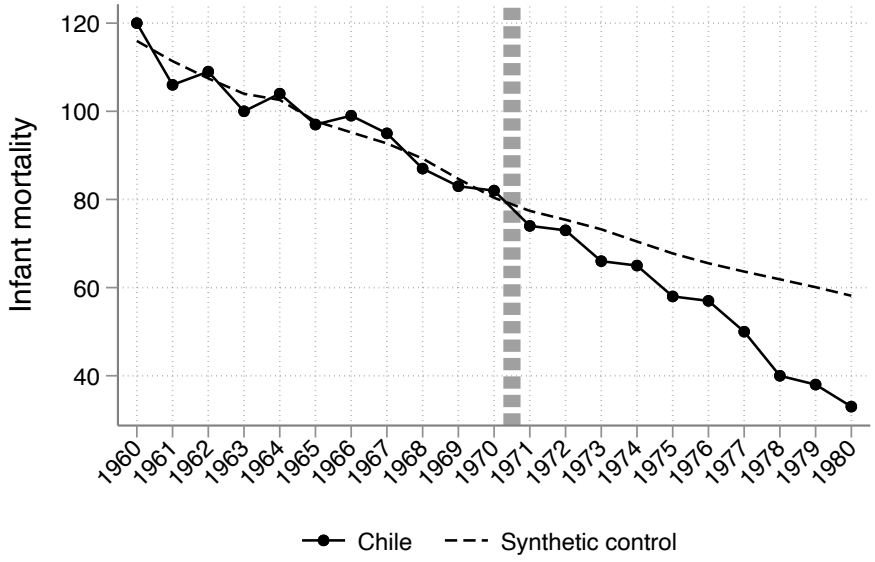
Results by political party. The interpretation of results remains similar if we examine the vote shares of different combinations of political parties as our main dependent variable. Table A18 shows that estimates are, if anything, larger when we use as dependent variable the UP vote share (column 1). The UP coalition was created after the 1969 election and was primarily composed by the socialist, communist, and radical parties. However, the Radical Party left the UP before the 1973 election. We reconstruct a synthetic version of this coalition in previous years by adding the votes of candidates affiliated with the socialist, communist, and radical parties. In fact, estimates are primarily driven by candidates from the socialist party (column 2), Salvador Allende's political house for decades. The lack of an empirical association between milk beneficiaries and the vote share of the Christian Democratic Party (PDC) in column 5 is an important check because that party joined the opposition coalition to compete in the 1973 election. The null relationship shows that the evolving position of the PDC is unlikely to confound our results.

Heterogeneity analysis. We fail to find meaningful and statistically significant heterogeneous effects of the milk program by proxies of income, education, and distance to the closest milk hospital. Table A19 presents results from our main parametric difference-in-differences specification. The estimates reveal similar effects of the milk program across places with different income levels, as measured by years of education and houses per capita (columns 1-4), which is consistent with the program being universal and lower-income households relying relatively more on breastfeeding than other higher income households (Mardones-Santander, 1979). We also fail to find heterogeneous results by distance to the closest hospital delivering milk (column 5), which we interpret as consistent with the relatively high take-up rate of the program (Goldsmith Weil, 2019).

FIGURE A1: Infant mortality in comparative perspective



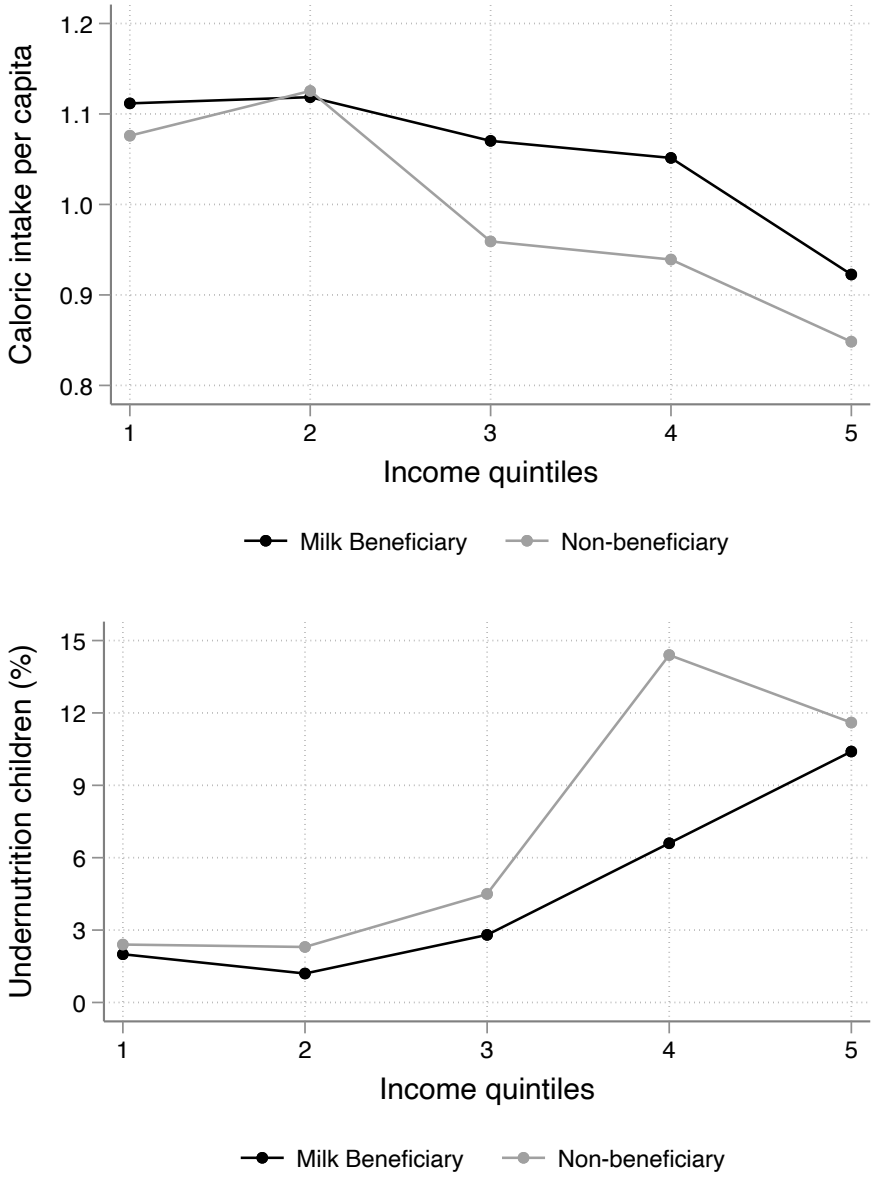
(a)



(b)

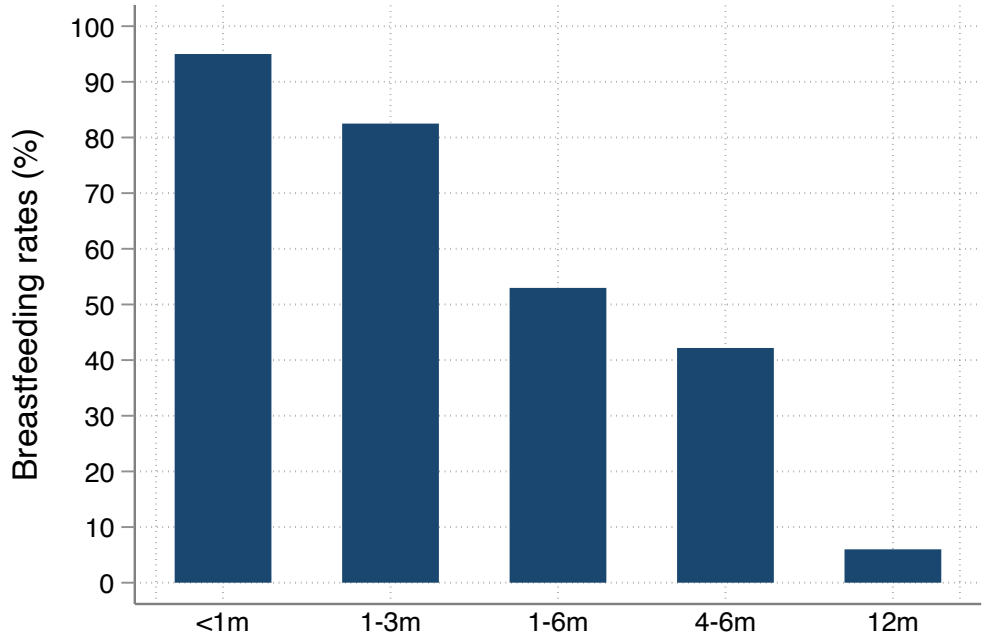
Notes. Panel (a) presents time series of infant mortality in selected countries using data from UNICEF. Panel (b) shows synthetic control estimates using the subset of the data before 1970 to construct a counterfactual for Chile after Salvador Allende rose to power in 1970.

FIGURE A2: Take-up of the milk program



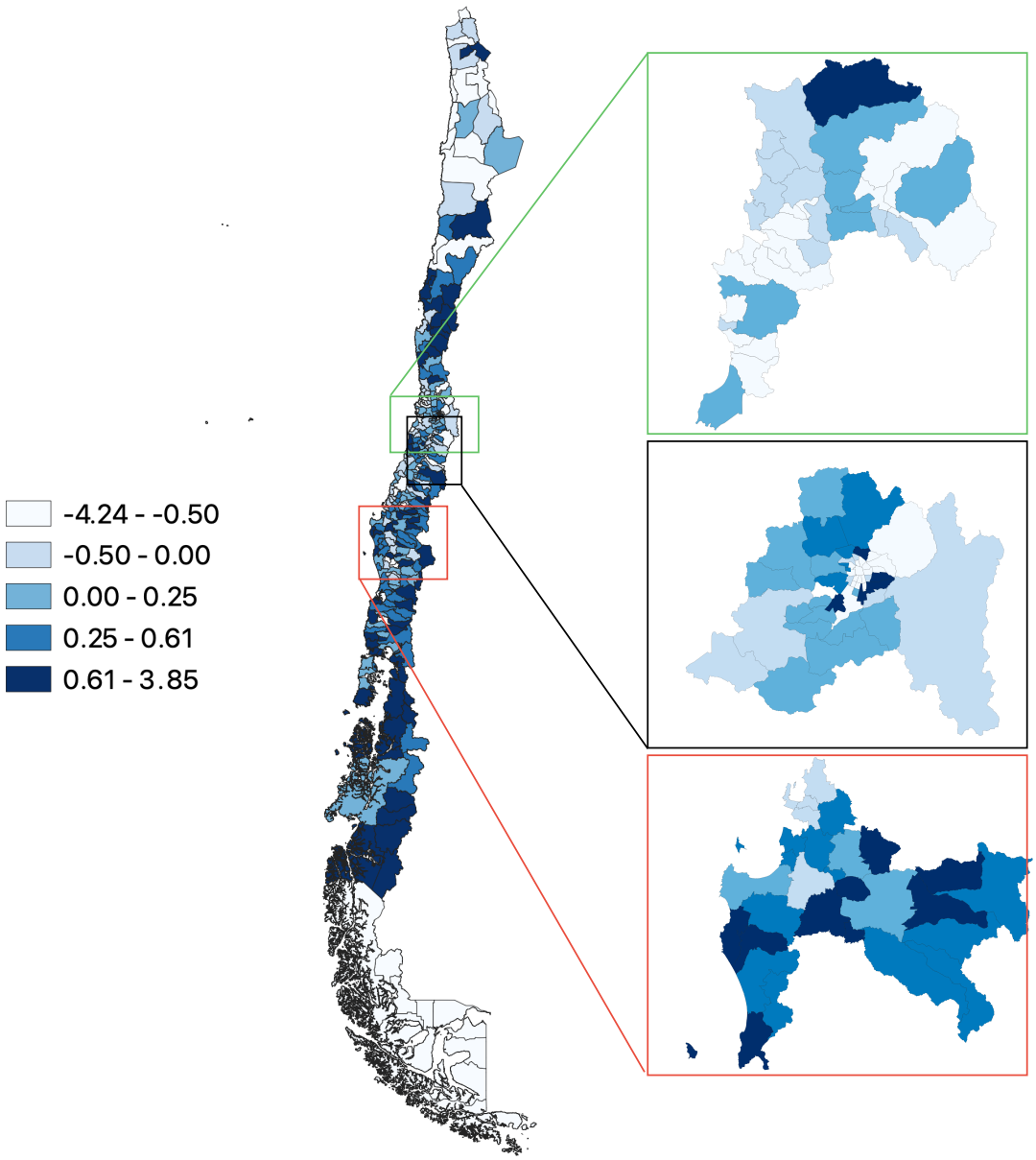
Notes. These figures are own construction using data from Torche (1985). Panel (a) presents the (standardized) caloric intake across milk beneficiaries and non-beneficiaries by income. We observe a gap of 10% in caloric intake among beneficiaries and non-beneficiaries in income quintiles 3-5. The lowest income quintile (1) are children from high-income families, and the largest (5) are children from low-income families. Panel (b) presents undernutrition rates among children.

FIGURE A3: Breastfeeding rates in Chile, 1963-1975



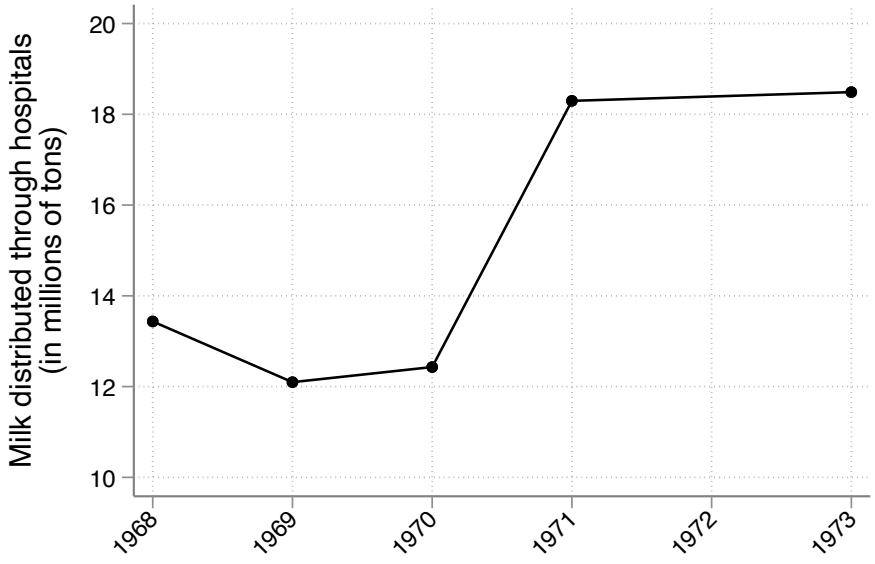
Notes. This figure presents breastfeeding rates in Chile in 1963-1975. Own construction based on survey data from Plank and Milanesi (1973), Bader (1976), and Mardones-Santander (1979).

FIGURE A4: Geographic distribution of milk beneficiaries



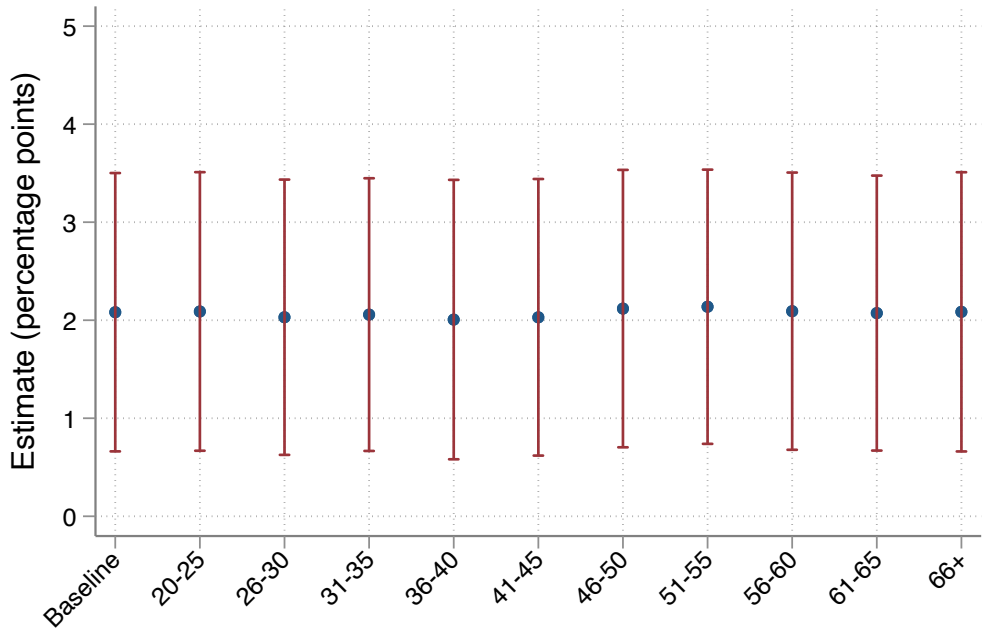
Notes. This map shows the geographic distribution of milk beneficiaries by municipality in 1970. To facilitate its interpretation, we normalized the share of milk beneficiaries to have a mean of zero and a standard deviation of one. As shown by the legend, darker (lighter) shades of blue represent municipalities with more (less) milk beneficiaries. The three maps in the right-hand side of the figure zoom in to the most populated areas in the country (Valparaiso, Santiago, and Concepción).

FIGURE A5: Milk distributed through hospitals, 1968-1973



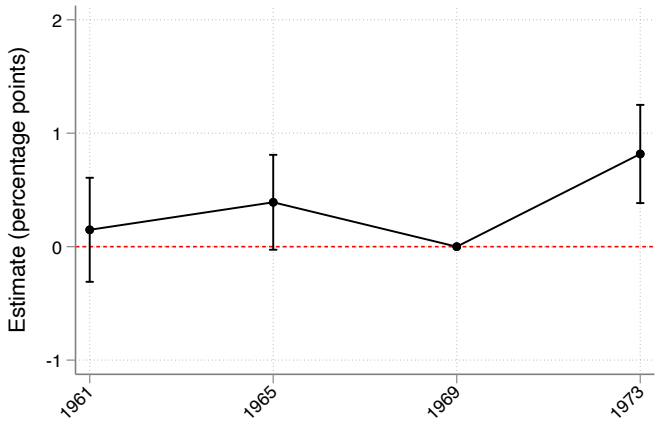
Notes. This figure shows the amount of milk distributed through hospitals in the 1968-1973 period. Own construction using data from the Ministry of Public Health.

FIGURE A6: Robustness to age composition and the presence of young adults

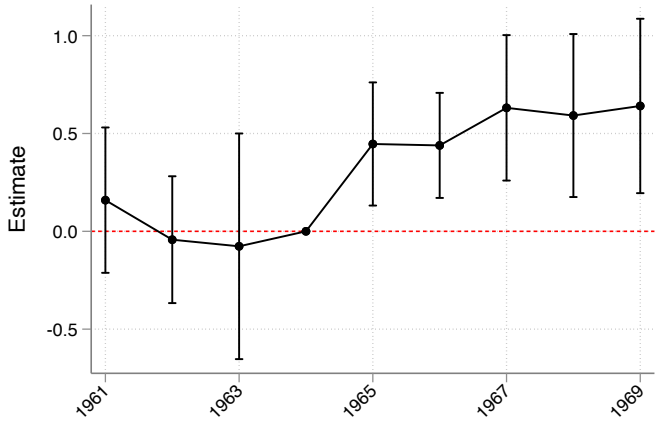


Notes. This figure shows the stability of difference-in-difference estimates to controlling for the share of the population in different age brackets interacted by a 1973 indicator. Each estimate comes from a separate regression that includes municipality and year fixed effects. The dark circle represents the point estimate and the vertical red line the 95 percent confidence interval.

FIGURE A7: Parallel trends in IV difference-in-differences model



(a) Support for the reduced-form parallel trends assumption



(b) Support for the first-stage parallel trends assumption

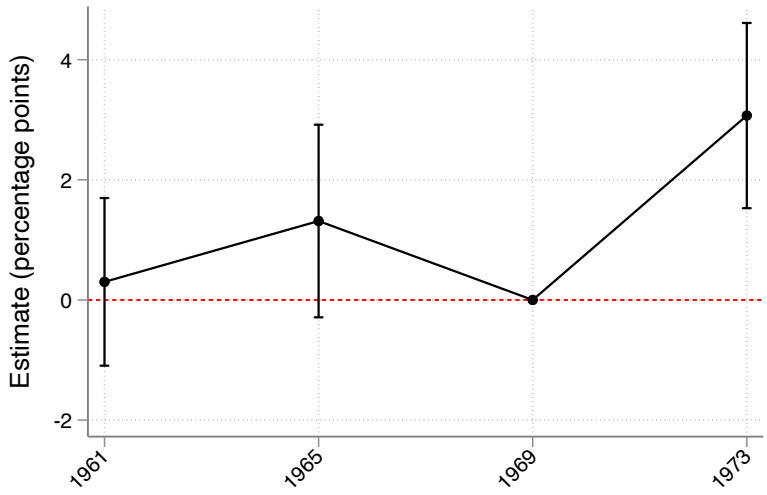
Notes. These figures present empirical support for the parallel trends assumption in the reduced form and first-stage models as argued by Hudson et al. (2017). The dependent variable in panel (a) is the left-wing vote share in four Congress elections (1961, 1965, 1969, 1973) and the treatment variable is the distance to hospitals delivering IUD. The dependent variable in panel (b) is the share of births per 1,000 inhabitants in 1960 per year in the 1961-1969 period and the treatment variable is again the distance to hospitals delivering IUDs. Black dots represent point estimates and vertical lines the 95 confidence interval. All regression specifications include municipality and area-by-year fixed effects. Standard errors are clustered by municipality. The p-value for the joint significance test for years before 1970 are 0.17 in panel (a) and 0.68 in panel (b).

FIGURE A8: Information campaign supporting the milk program

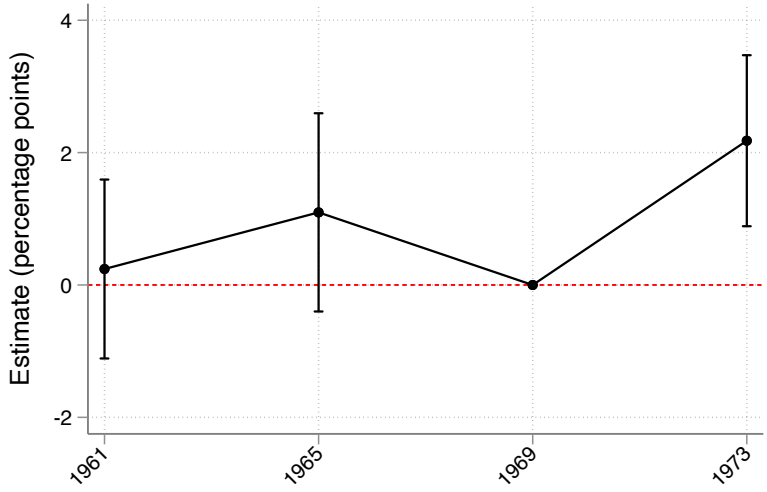
(a) Booklet (b) National lottery poster

Notes. These figures present some of information and visual imagery deployed to increase the take-up of the milk program. Panel (a) shows the cover of a popular booklet distributed for free and titled "Open letter to chilean mothers" which informed about the nutritional benefits of milk and how to mix powdered milk. Panel (b) presents the example of one of many posters used to promote the national lottery game in which the milk program was prominently featured.

FIGURE A9: Difference-in-differences by gender



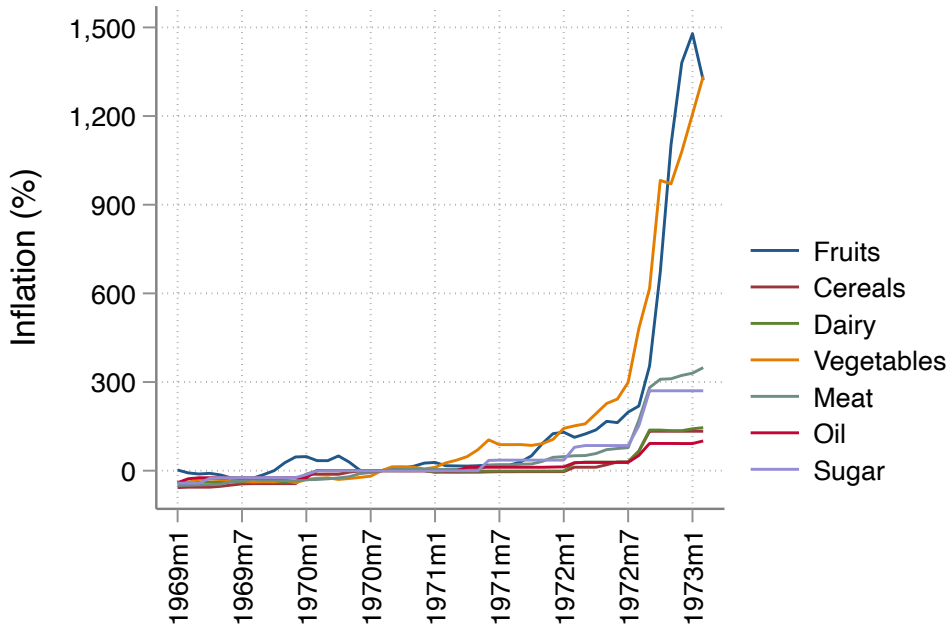
(a) Female voting booths



(b) Male voting booths

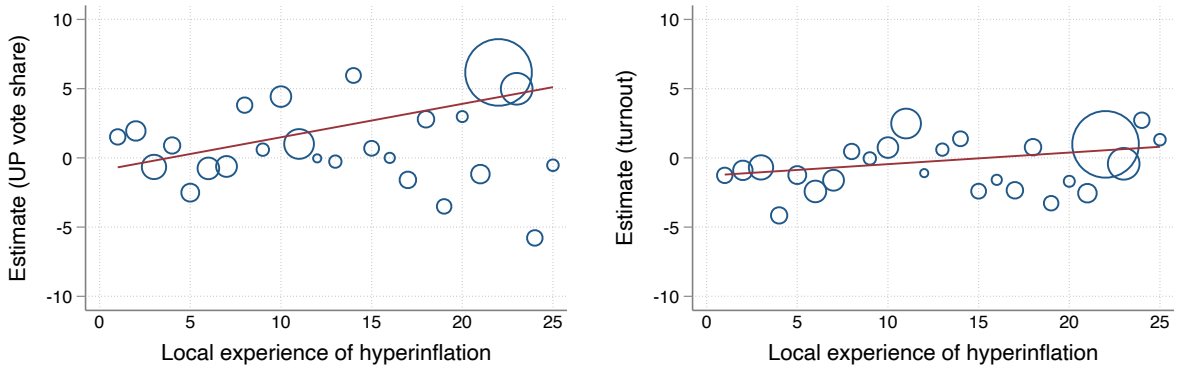
Notes. These figures present our difference-in-differences estimates for the change in support for the left-wing coalition (y-axis) between 1961 and 1973 by gender. Black dots represent point estimates and vertical lines the 95 confidence interval. The y-axis measures differences in voting patterns (in percentage points) predicted by an increase of one standard deviation in the share of milk beneficiaries in 1970, as compared to 1969 (the omitted category). All regression specifications include municipality and area-year fixed effects. Standard errors are clustered at the municipality level. Panel (a) uses as dependent variable the female vote share of candidates affiliated to the communist and socialist parties in congress elections (1961, 1965, 1969, and 1973), while panel (b) uses the male vote share for the same candidates. The p-values for the joint significance of coefficients before 1969 are 0.16 and 0.28 for panels (a) and (b) respectively.

FIGURE A10: Hyperinflation by product category



Notes. This figure presents monthly prices of seven categories of products from before the beginning of the Salvador Allende government (November 1970) until the month before the 1973 Congress Election (March 1973). All prices have been normalized to be equal to one in August 1970, one month before Salvador Allende was elected as president of Chile. Price data comes from official reports of the National Statistics Bureau, digitized and harmonized by Cerda et al. (2020).

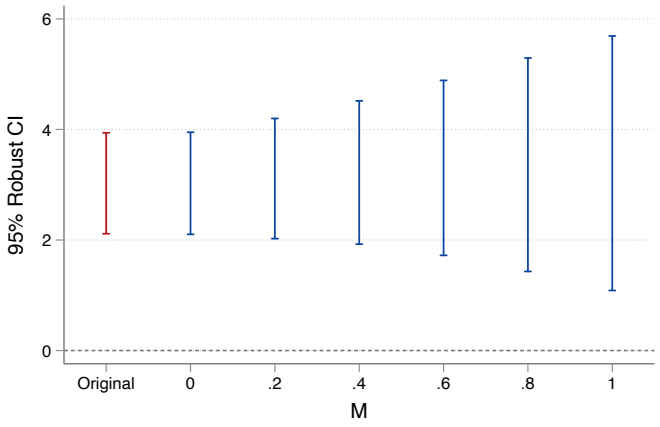
FIGURE A11: Local experience of the economic crisis



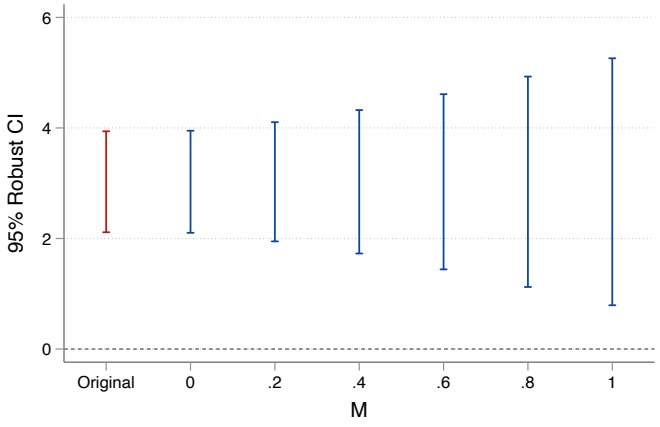
(a) Government support in 1973 (b) Participation in the 1973 election

Notes. These figures present correlates between the increase in government support coming from the milk program (y-axis) and the local experience of the economic crisis (x-axis) across all of the 25 provinces in Chile. We estimate the 25 estimates in the y-axis using municipality-level panel regressions restricting attention to each one of the 25 provinces. We measure the local experience of the crisis in the x-axis by ranking provinces by the number of JAPs per inhabitant. JAPs were local organizations promoted by the state to face the scarcity of products with rationing. The higher the rank (25 is the highest) the hardest the crisis hit. Panel (a) uses province-specific estimates for UP vote shares in 1973 and panel (b) uses province-specific estimates for turnout in 1973.

FIGURE A12: Robustness to parallel trends assumption



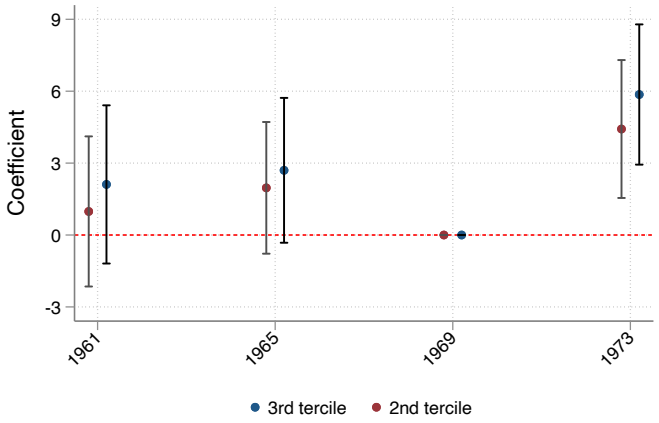
(a) Results using congress elections



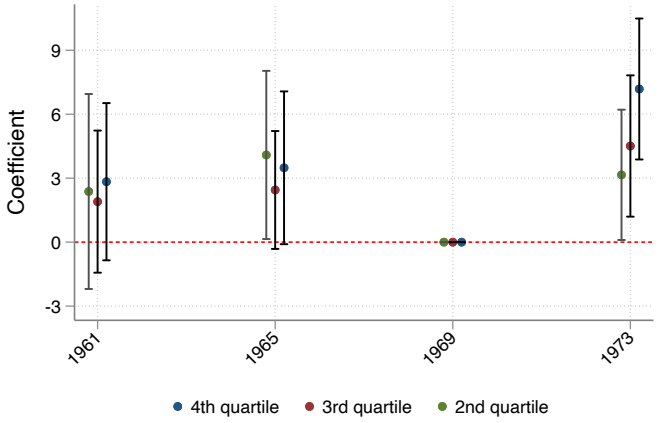
(b) Results using congress and local elections

Notes. These figures present the 95% confidence interval for the method suggested Rambachan and Roth (2023) that allows for linear ($M = 0$) or non-linear deviations ($M > 0$) of the parallel trends assumption. We define the maximum M using the trend that has the 80% against the null hypothesis of no pre-tend following Roth (2022). Moreover, using that pre-trend we compute the bias in the 1973 coefficient. For the sample of only congress elections, the trend is 0.96, which implies a bias 32% and a bias of 45% if we adjust for pre-testing bias, while for the extended sample the trend is 0.47, which implies a bias 31% and a bias of 44% if we adjust for pre-testing bias. Finally, we implement Dette and Schumann (2024) equivalence test by finding the minimal bound that would lead to rejection of the null hypothesis of non-negligible pre-trend differences at 5% (10%). In particular, we use the average of the pre-Allende coefficients to construct the test. In particular, we use the average of the pre-Allende coefficients to construct the test. We find that the minimal bound is 1.40 (1.19), thus representing a 46% (39%) of the coefficient for the 1973 election in Panel (b) of Figure 3.

FIGURE A13: Dynamic DiD for discrete treatment



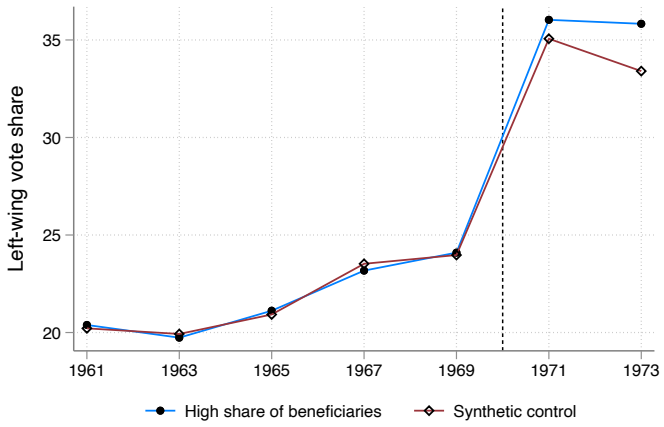
(a) Terciles



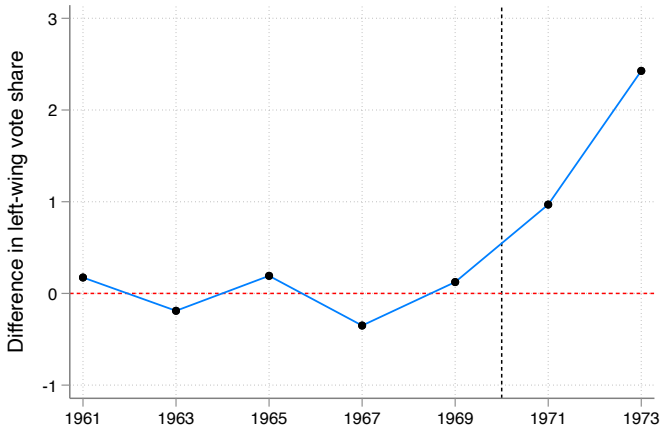
(b) Quartiles

Notes. Event-study estimates from the discrete-treatment difference-in-differences model of Callaway et al. (2024). Panel A uses terciles and panel B uses quartiles of the empirical distribution of milk beneficiaries. Points represent group-time average treatment effects relative to 1969; vertical bars denote 95% confidence intervals. All specifications include municipality and year fixed effects, with standard errors clustered by municipality.

FIGURE A14: Synthetic difference-in-differences



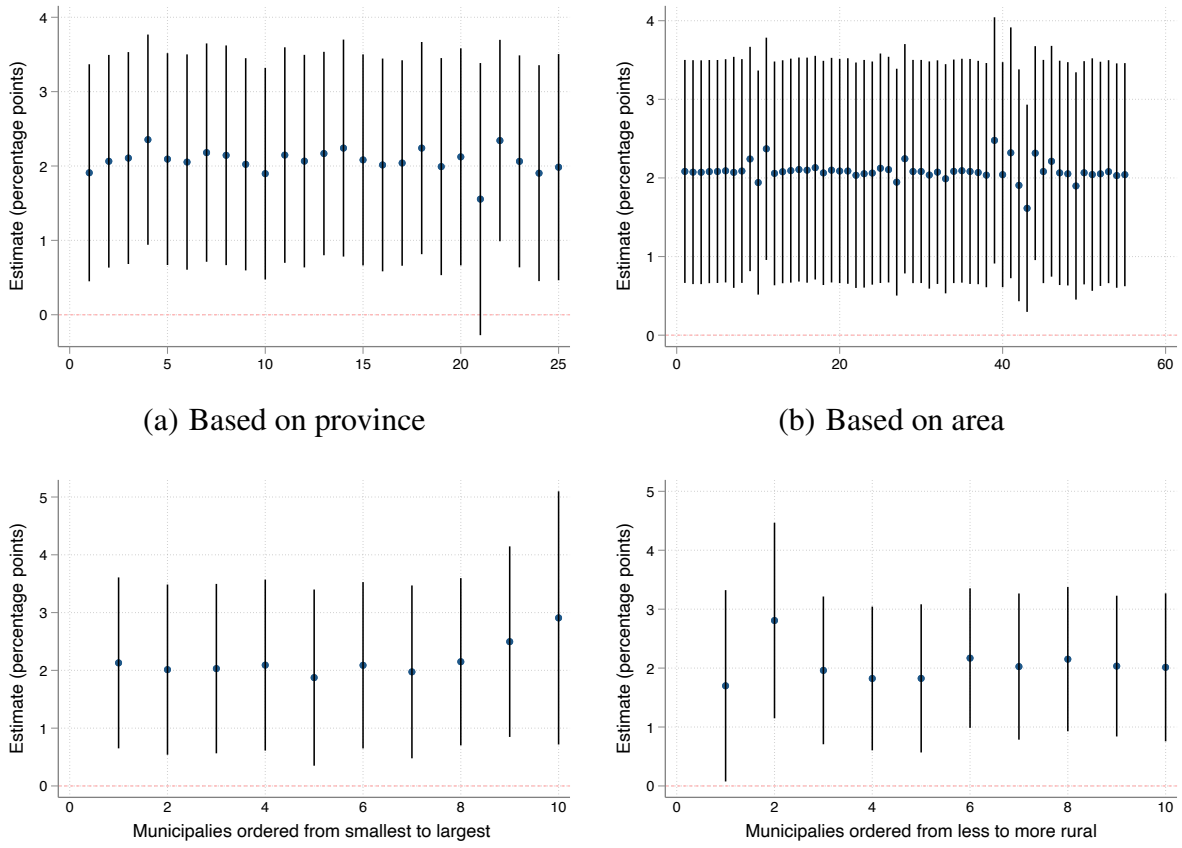
(a) Outcome in treatment and control groups



(b) Difference between treatment and control groups

Notes. These figures present results for the effect of milk beneficiaries on left-wing vote shares using the synthetic difference-in-differences methodology of Arkhangelsky et al. (2021). To apply the methodology, we discretize the continuous treatment into an indicator that takes the value of one for municipalities in the top quartile of the distribution of milk beneficiaries. The method then finds the best linear combination of municipalities in the control group that delivers parallel trends in the outcome before the treatment period. The years from 1961 to 1969 are the pre-treatment period and the years between 1971 and 1973 are the treatment period. To increase the efficiency of the procedure, we pool local and congress elections. Panel (a) shows parallel trends between treatment and control groups between 1961 and 1969. The vote share increases by 1 percentage point in treated municipalities in the 1971 local election and by 2.3 percentage points in the 1973 congress election, the latter effect being statistically significant a the 5% with a confidence interval of $[0.14, 4.53]$. Panel (b) shows the difference between both groups, where the parallel trends before the treatment and the separation during the treatment can be seen more clearly.

FIGURE A15: Robustness to excluding groups of municipalities



(a) Based on province

(b) Based on area

(c) Based on population

(d) Based on rurality

Notes. This figure presents the main regression from Table 4 (panel A, column 4), but excluding groups of municipalities one at the time. In panels (a) and (b) we repeat our main difference-in-differences estimation after dropping all municipalities in a province or area. There are 25 provinces and 55 areas. In panels (c) and (d), we ranked municipalities based on population size and rurality in 1970 and exclude groups of 30 counties one at the time. In both panels lower groups have less population and lower levels of share of rural population.

TABLE A1: Descriptive statistics

	Mean	Median	St dev	Observations
Panel A: By health area				
Milk distributed (tons.) in 1973	368	260	306	55
Milk distributed (tons.) in 1971	351	234	295	55
Milk distributed (tons.) in 1970	231	151	220	55
Number of hospitals	2.7	2.3	2.2	55
Panel B: By hospital in 1971				
Milk distributed (tons.)	89.7	51.2	146.6	132
Hospital mortality rate (0-4 yr old)	1.3	1.2	1.1	132
Hours worked by physicians (daily avg.)	90.6	21.5	238.5	132
Panel C: By municipality				
Politics				
Allende vote share 1970	36.4	34.8	11.1	307
UP vote share 1971	48.9	49.8	11.0	307
UP vote share 1973	44.5	44.6	10.7	307
Turnout 1969	31.3	27.4	17.9	307
Turnout 1970	38.5	32.5	22.1	307
Turnout 1973	45.9	41.5	18.5	307
Socioeconomics in 1970				
Total population	24,858	12,326	36,591	307
% milk beneficiaries	12.5	12.8	2.3	307
% with more 6 years of education	26.5	26.3	14.6	307
% illiterate	12.1	9.6	11.1	307
% rural	28.7	16.2	30.0	307
% workers in mining	3.8	0.3	10.3	307
% workers in agriculture	14.3	6.6	22.6	307

Notes. This table presents descriptive statistics for the main variables used in the analysis. We present statistics for three different types of units. Panel A uses administrative data from the Ministry of Public Health and presents descriptives for the 55 health areas in the country. Panel B also uses administrative data from the Ministry of Public Health but now for the 132 hospitals observed in 1971. In addition to the amount of milk distributed per hospital, we also observe mortality by age bracket, and the following medical inputs: number of physicians, number of nurses, hours worked by physicians, home visits done by nurses. Panel C uses our municipality-level dataset to describe key variables measuring political preferences (vote shares and turnout) and the socioeconomic context. The latter panel always presents descriptive statistics weighted by the 1970 population. The source for panel C is the 1970 population census and the Electoral Service.

TABLE A2: The fiscal cost of the milk program

	1970	1971	1972
Panel A: Fiscal accounts			
Real GDP (US$)	22,554	24,573	24,276
Fiscal revenues (US$)	4,163	4,058	2,438
Fiscal spending (US$)	4,419	5,740	3,835
Fiscal deficit (US$)	256	1,682	1,397
Deficit over GDP (%)	1.1	6.8	5.8
Panel B: Milk program			
Total cost of the program (US$)	–	–	139
Domestic	–	–	*14*
International	–	–	*125*
Deficit without milk program (%)	–	–	5.2

Notes. All data is in millions of 2003 U.S. dollars. Data for real GDP and fiscal accounts was originally constructed by Díaz et al. (2016). "Deficit over GDP" is defined as fiscal revenues minus fiscal spending over GDP of the same year. We use an exchange rate of 650 chilean pesos per dollar. Cost of the milk program in chilean pesos from Hakim and Solimano (1976).

TABLE A3: What drives the distribution of milk at the local level? No additional controls

	Dependent variable: Milk distribution					
	1971	1973				
	All	All	Infant	2-4yr	5-14yr	Pregnant
Panel A: By area	(1)	(2)	(3)	(4)	(5)	(6)
Milk beneficiaries	263***	263***	107***	129***	2	24***
	(31)	(31)	(12)	(15)	(4)	(3)
Allende vote share in 1970	32	32	11	12	6	3*
	(21)	(21)	(7)	(9)	(6)	(2)
Observations	55	55	55	55	55	55
R-squared	0.714	0.714	0.738	0.743	0.018	0.689
Controls	N	N	N	N	N	N
Avg. dependent variable	554.3	554.3	137.9	167.7	32.96	29.84
	Dependent variable: Milk distribution in 1971					
Panel B: By municipality	All		0-1yr		2-4yr	
Milk beneficiaries	101***	91***	34***	32***	52***	46***
	(20)	(16)	(7)	(5)	(10)	(9)
Allende vote share in 1970	-2	2	-1	1	0	2
	(9)	(12)	(3)	(4)	(5)	(6)
Observations	191	191	191	191	191	191
R-squared	0.439	0.595	0.436	0.603	0.409	0.572
Controls	N	N	N	N	N	N
Area fixed effects	N	Y	N	Y	N	Y
Avg. dependent variable	94.12	94.12	32.17	32.17	50.22	50.22

Notes. Estimates from cross-sectional regressions at the area (panel A) or municipality (panel B) level. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A4: Milk distribution is unrelated to hospital inputs

	Dependent variable is:			
	Medical hours	Nurses visits	Number of doctors	Number of nurses
	(1)	(2)	(3)	(4)
Panel A: Level				
Log milk distributed	-1.079	72.309	2.949	1.529
	(3.808)	(62.193)	(2.576)	(1.449)
Panel B: Over total consultations				
Log milk distributed	-0.117	0.930	-0.079	-0.018
	(0.117)	(1.439)	(0.056)	(0.028)
Observations (panel A)	813	813	813	813
Observations (panel B)	805	805	805	805
Hospitals	157	157	157	157
Avg. dependent variable (panel A)	84.45	196	14.24	5.945
Avg. dependent variable (panel B)	1.987	4.803	0.353	0.157
Hospital fixed effects	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y

Notes. This table shows the empirical relationship between milk distribution and hospital-level inputs related to physicians and nurses. Panel A uses as dependent variable the hospital inputs measured in levels while panel B measures the same inputs over consultations in the hospital to account for differences in hospital size. Data on milk distribution, physicians, and nurses comes directly from reports in the annual Health Statistics produced by the National Statistics Bureau in collaboration with the National Health Service. Standard errors in parenthesis are clustered by hospital. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A5: Milk distribution and hospital consultations, 1968-1975

Dep. variable: Log consultations over population			
	Total	Non-children	Children
	(1)	(2)	(3)
Log milk distributed	0.184**	0.211	0.517***
	(0.090)	(0.141)	(0.116)
Observations	810	810	810
Hospitals	157	157	157
Hospital fixed effects	Y	Y	Y
Area-year fixed effects	Y	Y	Y
Avg. dependent variable	7.363	6.885	8.135

Notes. This table presents panel data estimates for the association between the distribution of milk (in kilograms) and children consultations. All regression specifications include hospital and area-year fixed effects. Column 1 uses as dependent variable the (log) total number of consultations over the 1970 population per 1,000 inhabitants in the municipality of the hospital. Column 2 uses total consultations minus children consultations (i.e. non-children) over the total population older than 5 years old. Column 3 uses the (log) total children consultations over the number of children under 4 years old. In addition, all columns include a set of time-varying control variables "Medical inputs" which include the number of physicians, the number of hours worked by physicians and the number of home visits done by nurses. Standard errors in parenthesis are clustered by hospital. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A6: Children hospital mortality – Poisson QMLE

Dependent variable: Children deaths (Poisson QMLE)					
	0-4 yrs old			5-9 yrs	10-14 yrs
	(1)	(2)	(3)	(4)	(5)
Log milk	-0.023**	-0.021**	-0.032**	-0.121	0.131
	(0.011)	(0.010)	(0.013)	(0.136)	(0.106)
Observations	813	813	813	813	813
Hospital fixed effect	Y	Y	Y	Y	Y
Year fixed effect	Y	Y	N	N	N
Area-year fixed effect	N	No	Y	Y	Y
Hospitals	157	157	157	157	157
Avg. dependent variable	2.508	2.508	2.508	0.254	0.225

Notes. This table presents panel data estimates for the association between milk distribution (in kilograms) and children hospital mortality rates, estimated using Poisson pseudo-maximum likelihood (PPML) with hospital and year (or area-by-year) fixed effects (Correia et al., 2020). The dependent variable is the number of deaths in the corresponding age group, scaled by child population. Columns 1–3 use mortality for children aged 0–4. Columns 4–5 use older children (5–9 and 10–14) as placebo outcomes. Columns 3–5 additionally control for time-varying medical inputs (physicians, hours worked, nurses, and home visits). The unbalanced panel includes 157 hospitals observed over six years (1972 and 1974 unavailable). Standard errors are clustered at the hospital level. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE A7: Baseline municipal characteristics and milk beneficiaries

		Coefficient on Milk beneficiaries		
	Mean of variable	Milk beneficiaries	+Area FE	+Area FE +baseline controls
Panel A: Socio-demographic characteristics (1970)	(1)	(2)	(3)	(4)
Log population	10.76	-0.67***	-0.84***	†
	(1.11)	(0.05)	(0.10)	
Pop. density	1694	-1.30***	-1.49***	-1.72***
	(3608)	(0.45)	(0.27)	(0.36)
Pop. share rural	0.29	0.62***	0.64***	†
	(0.30)	(0.07)	(0.12)	
Pop. share w/6+ years of education	0.26	-1.12***	-0.93***	†
	(0.15)	(0.11)	(0.08)	
Household size	5.04	0.27***	0.09*	0.16*
	(0.61)	(0.03)	(0.05)	(0.09)
Pop. share female	0.51	-0.61***	-0.63***	-0.06
	(0.03)	(0.10)	(0.09)	(0.14)
Pop. share economically active	0.49	-0.03	0.22**	0.02
	(0.03)	(0.07)	(0.09)	(0.16)
Literacy rate	0.65	-0.83***	-0.74***	-0.30**
	(0.10)	(0.06)	(0.11)	(0.12)
Panel B: Economic structure (1970)				
Pop. share mining sector	0.04	0.11***	0.06	-0.04
	(0.10)	(0.04)	(0.06)	(0.11)
Pop. share agricultural sector	0.14	0.23***	0.25***	-0.10**
	(0.23)	(0.03)	(0.06)	(0.05)
Land inequality in 1965	0.85	0.01	0.16**	0.35***
	(0.12)	(0.09)	(0.07)	(0.09)
Distance to province capital	2.36	0.66***	0.96***	†
	(1.70)	(0.08)	(0.12)	
Distance to closest university campus	33.13	0.34***	0.28***	0.09
	(38.94)	(0.03)	(0.05)	(0.05)
Community organizations	1.49	-0.22**	-0.22***	-0.17
	(2.49)	(0.09)	(0.08)	(0.11)
Municipalities	307	307	307	307

Notes: This table reports regressions of predetermined municipal characteristics on the standardized share of milk beneficiaries in 1970 (N = 307 municipalities). Column (1) reports sample means, with standard deviations in parentheses. Column (2) presents bivariate correlations. Column (3) adds area fixed effects. Column (4) additionally controls for the baseline demographic and geographic characteristics used in the main specifications. † Variables included in baseline control set. Robust standard errors in parentheses in columns 2-4. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A8: Mobilization? Interaction with local illiteracy

	Local illiteracy share			
	Illiterates / Pop. (10+)		Illiterates / Total Pop.	
Dependent variable:	*Left-wing vote share*	*Turnout*	*Left-wing vote share*	*Turnout*
	(1)	(2)	(3)	(4)
Milk beneficiaries × Local illiteracy × 1973	-0.62	-3.12**	-0.64	-3.21**
	(0.70)	(1.42)	(0.73)	(1.45)
Milk beneficiaries × 1973	1.28*	-0.00	1.33*	-0.02
	(0.76)	(1.07)	(0.75)	(1.07)
Local illiteracy × 1973 Election	0.91**	-0.82*	0.89**	-0.92*
	(0.46)	(0.46)	(0.45)	(0.48)
Observations	1224	1224	1224	1224
R-squared	0.939	0.969	0.939	0.969
Municipality fixed effects	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y
Average dep var	26.82	31.74	26.82	31.74

Notes. This table reports difference-in-differences estimates allowing the effect of milk exposure in 1973 to vary with municipal illiteracy. If the program primarily mobilized newly enfranchised illiterate voters, one would expect larger turnout effects in high-illiteracy municipalities. The specification includes municipality and area-by-election fixed effects. The dependent variable is left-wing vote share (columns 1 and 3) or turnout (columns 2 and 4). Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (ages 0–4) in 1970. Local illiteracy is measured either among the population aged 10+ (columns 1–2) or the full population (columns 3–4). Standard errors are clustered by municipality. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE A9: Votes by gender, robustness to matching estimators

	Dependent variable:											
	Left-wing vote share						Turnout					
	Binary treatment	Control for pscore	Crump et al. (2009)	Yang and Ding (2018)	Abadie (2005)	Sant'Anna and Zhao (2020)	Binary treatment	Control for pscore	Crump et al. (2009)	Yang and Ding (2018)	Abadie (2005)	Sant'Anna and Zhao (2020)
Panel A: Female voting booths	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Milk beneficiaries × 1973	1.47	2.39***	2.53***	2.08***	8.27**	4.57***	-1.99	1.54	0.48	-1.04	-0.75	-3.05***
	(0.98)	(0.71)	(0.56)	(0.64)	(3.87)	(1.23)	(2.02)	(2.40)	(2.08)	(0.88)	(2.25)	(1.08)
Observations	1211	1211	1207	1211	1211	1211	1211	1211	1207	1211	1211	1211
Avg. dependent variable	24.58	24.58	24.58	24.58	24.58	24.58	29.09	28.68	29.09	29.09	29.09	29.09
Panel B: Male voting booths												
Milk beneficiaries × 1973	0.18	-0.44	1.74***	1.38**	5.35**	2.91**	1.33	3.95*	3.42*	1.04	0.65	-0.69
	(1.14)	(1.40)	(0.63)	(0.66)	(2.61)	(1.15)	(2.21)	(2.26)	(1.94)	(0.92)	(1.54)	(1.13)
Observations	1211	1211	1207	1211	1211	1211	1211	1211	1207	1211	1211	1211
Avg. dependent variable	31.78	31.78	31.78	31.78	31.78	31.78	34.90	34.90	34.90	34.90	34.90	34.90
Municipality fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	N

Notes. This table presents matching difference-in-differences estimates for the impact of the milk program on 1973 electoral outcomes. We use data for 307 municipalities observed in four congress elections (1961, 1965, 1969, and 1973). Each column presents results from a different robustness exercise. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). For all matching exercises, we use as matching variables the share of women and the share of married women both based on the 1970 Census. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A10: Predetermined characteristics and local hyperinflation

	Dep. variable: Consumption share on				Dep. variable: Hyperinflation		
	Fruits	Cereals	Dairy	Vegetables	All	Fruits	Cereals
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Vote share Salvador Allende in 1970	-5.92**	2.52	-2.30	6.11	-0.16	-0.09	0.01
	(2.71)	(2.77)	(3.62)	(3.98)	(0.18)	(0.11)	(0.14)
Vote share Jorge Alessandri in 1970	7.89**	-3.13	1.91	-7.90	0.29*	0.20**	-0.08
	(3.42)	(3.64)	(4.35)	(5.19)	(0.16)	(0.09)	(0.12)
Distance to regional capital	0.64	13.03**	-9.21*	-7.25	-0.34	0.11	-0.36**
	(3.97)	(4.84)	(5.11)	(5.76)	(0.26)	(0.11)	(0.17)
Distance to province capital	-0.95	15.88***	-9.53**	-9.68	-0.43	-0.12	-0.11
	(3.55)	(4.41)	(4.62)	(6.70)	(0.31)	(0.14)	(0.20)
Ln population (Pop.) in 1970	2.34	-12.10***	7.22**	7.83	0.29	0.17*	-0.04
	(3.48)	(3.24)	(3.10)	(5.66)	(0.27)	(0.10)	(0.17)
Household size	-2.05	2.06	-0.37	0.18	0.19	0.10*	-0.02
	(2.14)	(2.77)	(1.65)	(2.83)	(0.12)	(0.06)	(0.06)
Community organizations 1970	-2.75	1.80	1.15	-1.64	-0.18	-0.12	0.04
	(2.81)	(3.76)	(2.25)	(3.57)	(0.16)	(0.09)	(0.05)
Churches per capita 1962	-0.42	2.02	-0.90	-2.40**	-0.09	-0.06	0.03
	(2.14)	(1.93)	(1.01)	(1.17)	(0.19)	(0.10)	(0.05)
Pop. share w/6+ years of education 1970	4.80	-13.15***	7.63**	3.71	-0.04	-0.02	0.02
	(3.70)	(3.46)	(3.63)	(6.00)	(0.25)	(0.10)	(0.17)
Pop. density 1970	-6.73	-22.70*	27.22**	15.02	0.38	0.01	0.23
	(18.82)	(13.01)	(11.14)	(22.54)	(0.28)	(0.15)	(0.23)
Pop. share rural 1970	-0.09	8.52***	-2.29	-12.08**	0.06	0.04	-0.03
	(2.45)	(2.82)	(2.60)	(4.54)	(0.22)	(0.11)	(0.17)
Pop. share economically active 1970	2.30	1.34	-1.41	-2.73	-0.17	-0.08	0.01
	(2.79)	(1.63)	(2.42)	(3.27)	(0.16)	(0.09)	(0.09)
Literacy rate	1.98	-11.43***	8.14**	4.82	-0.01	-0.06	0.08
	(3.60)	(3.71)	(3.16)	(5.56)	(0.18)	(0.08)	(0.12)
Pop. share female 1970	3.58	-10.78***	5.75*	3.48	0.19	0.10	-0.01
	(3.36)	(2.83)	(3.22)	(5.10)	(0.18)	(0.09)	(0.13)
Land inequality	2.45	0.77	-2.05	-1.69	-0.07	0.09	-0.15*
	(3.63)	(2.45)	(4.19)	(3.86)	(0.10)	(0.06)	(0.09)
University campus	2.04	-8.51	5.79	-0.95	0.27	0.15	0.00
	(2.51)	(6.13)	(6.96)	(5.78)	(0.31)	(0.10)	(0.15)
Distance to closest university	-0.86	5.12***	-1.83	-5.03***	-0.22	0.11	-0.28***
	(1.29)	(1.60)	(1.37)	(1.75)	(0.16)	(0.07)	(0.07)
Port	0.31	-1.64	-1.41	1.28	-0.06	-0.01	-0.02
	(1.29)	(3.10)	(1.59)	(2.09)	(0.06)	(0.01)	(0.04)
Airport	4.07	-12.95*	8.23	0.00	0.00	0.17	-0.17
	(4.54)	(6.80)	(7.83)	(9.62)	(0.48)	(0.23)	(0.35)
Indicator military presence	11.19	-14.53*	9.51	-10.28	-0.23	0.16	-0.32
	(8.14)	(7.68)	(9.33)	(11.50)	(0.46)	(0.19)	(0.27)
Pop. share mining sector	-0.32	0.28	-0.77	1.81*	-0.11	-0.11	0.08
	(0.59)	(0.30)	(0.46)	(1.01)	(0.14)	(0.08)	(0.06)
Pop. share agricultural sector	-0.43	2.45***	-0.47	-3.31**	-0.06	-0.01	-0.02
	(0.80)	(0.89)	(0.69)	(1.50)	(0.11)	(0.04)	(0.08)
Observations	307	307	307	307	307	307	307
Are fixed effects	Y	Y	Y	Y	Y	Y	Y

Notes: Each cell reports coefficients from separate cross-sectional regressions at the municipality level. Columns 1–4 use the share of grams in each consumption category as the dependent variable. Columns 5–7 use the corresponding measures of local hyperinflation constructed by interacting national price changes (1970–1973) with pre-determined consumption shares. Columns 5–7 show that the hyperinflation measures are not systematically correlated with pre-1970 political preferences. All specifications include area fixed effects. Robust standard errors in parentheses. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE A11: Incidence of the crisis and voting in the 1970 election

	Indicator high number of rationing boards per capita
	(1)
Left-wing vote share in 1970	0.26
	(0.25)
Right-wing vote share in 1970	0.24
	(0.25)
Observations	25
Avg. dependent variable	0.48

Notes: This table shows the lack of a cross-sectional correlation between organizations/offices at the local level in 1972/1973 and political preferences as measured by vote shares in the 1970 presidential election. Both the left- and right-wing votes shares are standardized by the mean and standard deviations to facilitate the interpretation of coefficients. Columns 1-2 use the cross-section of 307 municipalities and column 3 the cross-section of provinces. The latter represents the level of aggregation at which we observe data on rationing boards. Robust standard errores are presented in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A12: Evidence from rationing boards

Dependent variable: Left-wing vote share in the 1973 Election		
Split sample by:	*Number of rationing boards per capita in January 1973*	
	Municipalities with many boards	Municipalities with few boards
	(1)	(2)
Milk beneficiaries × 1973	2.59***	-0.52
	(0.42)	(2.48)
Observations	592	632
Municipality fixed effects	Y	Y
Year fixed effects	Y	Y
Avg. dependent variable	28.26	25.41

Notes. This table presents difference-in-differences estimates for the heterogeneous effect of the milk program on support for the left-wing government using a panel dataset of 307 municipalities observed during 4 Congress elections (1961, 1965, 1969, 1973). The dependent variable is the share of votes for left-wing (socialist and communist) candidates $Y \in [0, 100]$. *Milk beneficiaries* is the share of the local population that is eligible for the milk program. The variable *1973* is an indicator that takes the value of one for the 1973 Congress Election. We measure the severity of hyperinflation at the municipality level by the number of rationing boards per capita in January 1973. Rationing boards opened to combat hyperinflation and scarcity of goods. The source for the number of boards by province are contemporary newspapers. To facilitate the interpretation of coefficients, we split the sample of municipalities using the median of the distribution of rationing boards per capita across provinces. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A13: Difference-in-differences with continuous treatment

	Terciles	Quartiles	Kernel
	(1)	(2)	(3)
Milk beneficiaries × 1973			2.25***
			(0.57)
Milk beneficiaries in Q4 × 1973		5.08***	
		(1.79)	
Milk beneficiaries in Q3 × 1973		3.06*	
		(1.58)	
Milk beneficiaries in Q2 × 1973		1.00	
		(1.82)	
Milk beneficiaries in Q3 × 1973	4.26***		
	(1.54)		
Milk beneficiaries in Q2 × 1973	3.44**		
	(1.41)		
$\widehat{ATT}^o$	3.90***	3.05**	
	(1.29)	(1.37)	
$\widehat{ACR}^o$	2.13***	1.69***	
	(0.77)	(0.60)	
Observations	1,224	1,224	
Municipality fixed effects	Y	Y	
Year fixed effects	Y	Y	
Avg. dependent variable	26.82	26.82	

Notes. Difference-in-differences estimates using the approach of Callaway et al. (2024) with discrete treatment groups. Columns 1 and 2 discretize milk beneficiaries into terciles and quartiles of its empirical distribution. $\widehat{ATT}^o$ denotes the average treatment effect on the treated under the standard parallel trends assumption, and $\widehat{ACR}^o$ denotes the average causal response under the strong parallel trends assumption. Column 3 reports a non-parametric kernel estimator. All specifications include municipality and year fixed effects. Standard errors clustered by municipality. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE A14: Specification decisions and spatial controls

Alternative specification:	Dependent variable: Left-wing vote share								
				Additional geographic controls					
	Collapse pre/post	Weighted by adult population	Unweighted	Moran I	Lat-Lon polynomials	Centrality	LASSO selected socioeconomic & demographic	Children 10-14 yr	Cattle farming
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Milk beneficiaries × 1973	2.06***	2.04***	2.68***	2.03***	2.07***	2.14***	2.64***	2.14***	2.99***
	(0.72)	(0.73)	(0.61)	(0.72)	(0.72)	(0.72)	(0.77)	(0.79)	(0.90)
Children 10-14 yr old × 1973								-0.31	
								(1.05)	
Cattle farming × 1973									0.32
									(0.54)
Observations	614	1224	1224	1224	1224	1224	1224	1224	1224
Municipality fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Avg. dependent variable	29.45	26.82	26.82	26.82	26.82	26.82	26.82	26.82	26.82

Notes. This table reports difference-in-differences estimates of the effect of milk beneficiaries on left-wing vote share in 307 municipalities observed in four Congress elections (1961, 1965, 1969, and 1973). Each column presents a different robustness exercise. Milk beneficiaries is the standardized share of children eligible for free milk (ages 0–4). All specifications include municipality and area-year fixed effects. Standard errors are clustered by municipality. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE A15: Matching results

	Dependent variable: Left-wing vote share					
			Matching method:			
	Binary treatment	Control for pscore	Crump et al. (2009)	Yang and Ding (2018)	Abadie (2005)	Sant'Anna and Zhao (2020)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: LASSO						
Milk beneficiaries × 1973	3.05***	2.08***	3.66***	2.80***	2.82**	2.20**
	(1.12)	(0.78)	(0.78)	(0.74)	(1.27)	(1.11)
Observations	1224	1224	1099	1224	1224	1224
Municipality fixed effects	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y
Avg. dependent variable	26.82	26.82	26.66	26.82	26.82	26.82
Panel B: Women						
Milk beneficiaries × 1973	3.05***	1.76**	2.08***	2.72***	4.27***	3.12***
	(1.12)	(0.87)	(0.72)	(0.61)	(1.64)	(1.10)
Observations	1224	1224	1220	1224	1224	1224
Municipality fixed effects	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y
Avg. dependent variable	26.82	26.82	26.82	26.82	26.82	26.82

Notes. This table presents matching difference-in-differences estimates for the impact of the milk program on 1973 electoral outcomes. We use data for 307 municipalities in four congress elections (1961, 1965, 1969, and 1973). Column 1 uses as treatment a dummy that takes the value one if the share of population eligible for milk is above the median. Based on this dummy we construct a propensity score that in panel A uses as covariates the share of rural population, share of mining workers, and the number of churches per 1,000 inhabitants, this set of covariates was chosen using Belloni et al. (2014). Panel B uses the share of women and the share of married women both based on the 1970 Census. Column 2 controls for a set of dummies based on the terciles of the empirical distribution of the propensity score interacted with year fixed effects. In column 3, we follow Crump et al. (2009) and truncate the sample based on the propensity score using the optimal cut-off which are 11% in panel A and 14% in panel B. In column 4, instead of truncating the sample, we use a decaying function as suggested by Yang and Ding (2018). In columns 5 and 6, we estimate the model suggested by Abadie (2005) and the doubly-robust method proposed Sant'Anna and Zhao (2020). Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A16: Robustness to institutional presence and isolation/access

	Dependent variable: Left-wing vote share						
	Institutional presence			Isolation/access			
Additional controls:	Churches per capita	Indicator military base	Social organizations	Airports	Distance to airport	Ports	Distance to port
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Milk beneficiaries × 1973	2.03***	3.01***	2.14***	2.80***	2.01***	2.13***	2.08***
	(0.72)	(0.88)	(0.72)	(0.75)	(0.75)	(0.75)	(0.73)
Observations	1224	1224	1224	1224	1224	1224	1224
R-squared	0.939	0.939	0.939	0.939	0.939	0.939	0.939
Municipality fixed effects	Y	Y	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y	Y	Y
Avg. dependent variable	26.82	26.82	26.82	26.82	26.82	26.82	26.82

Notes. This table presents difference-in-differences estimates for the impact of the milk program on 1973 electoral outcomes. We use data for 307 municipalities observed in four congress elections (1961, 1965, 1969, and 1973). Each column presents results from a different robustness exercise. Milk beneficiaries is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A17: Left-wing voting and children before the milk program

	Dependent variable: Left-wing vote share in...				
	Congress Elections 1961–1973			Congress 1965	Local 1963
	(1)	(2)	(3)	(4)	(5)
Milk beneficiaries × 1973	1.91***		2.51***		
	(0.72)		(0.77)		
Children [0,4] in 1960 × 1973		0.59	-1.17		
		(1.18)	(1.30)		
Children [0,4] in 1960				0.18	-0.48
				(1.30)	(1.00)
Observations	356	356	356	89	89
Department fixed effects	Y	Y	Y	N	N
Year fixed effects	Y	Y	Y	N	N
Controls	N	N	N	Y	Y
Avg. dependent variable	26.38	26.38	26.38	22.19	22.88

Notes: The set of controls include turnout and vote share for Allende and Alessandri in 1958 Presidential elections, (log) population, (log) distance to the province capital, share of the population living in rural areas, and share of the population with more than 6 years of education. Clustered standard errors at the department level in columns 1 to 3 and robust standard errors are presented in parenthesis in columns 4 and 5. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A18: Political results by political party

Dependent variable:	Vote share of party/coalition				
Party/coalition	Popular Unity	Socialist	Communist	Radical	Christian democracy
	(1)	(2)	(3)	(4)	(5)
Milk beneficiaries × 1973	3.25***	1.27**	0.81	0.87**	0.68
	(0.63)	(0.57)	(0.60)	(0.43)	(0.62)
Observations	1224	1224	1224	1224	1224
R-squared	0.906	0.906	0.934	0.895	0.926
Municipality fixed effects	Y	Y	Y	Y	Y
Area-year fixed effect	Y	Y	Y	Y	Y
Avg. dependent variable	42.12	13.12	13.69	13.93	29.17

Notes. This table presents our main difference-in-differences estimates using data for 307 municipalities observed in four congress elections (1961, 1965, 1969, and 1973). Column 5 presents an important check because the Christian Democrats were in the opposition coalition in 1973. 'Milk beneficiaries' is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A19: Heterogeneous relationship between the milk program and left-wing vote shares

	Dependent variable: Left-wing vote share				
	Share of population with more than X years of education				
Covariate:	6	8	12	Number of houses per capita in 1970	Distance to closest hospital delivering milk
	(1)	(2)	(3)	(4)	(5)
Milk beneficiaries × 1973	1.93*	1.84*	1.68**	2.75***	2.13***
	(1.03)	(0.98)	(0.75)	(0.67)	(0.74)
Milk beneficiaries × *Covariate* × 1973	-0.05	-0.09	-0.19	0.45	0.13
	(0.29)	(0.22)	(0.15)	(0.77)	(0.64)
Covariate × 1973 Election	-0.25	-0.45	-1.05	0.68	0.03
	(0.88)	(0.90)	(0.71)	(0.81)	(0.62)
Observations	1224	1224	1224	1144	1224
Municipality fixed effects	Y	Y	Y	Y	Y
Area-year fixed effects	Y	Y	Y	Y	Y
Avg. dependent variable	26.82	26.82	26.82	26.68	26.82

Notes. This table presents difference-in-differences estimates for the heterogeneous impact of the milk program by proxies for income and access to milk. All regressions use data for 307 municipalities observed in four congress elections (1961, 1965, 1969, and 1973). 'Milk beneficiaries' is the (standardized) share of the population eligible for free milk at hospitals (0-4 years old). Column 6 includes year fixed effects instead of area-year fixed effects. Standard errors in parenthesis are clustered by municipality. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A20: Demographic trends nearby IUD hospitals

	Change in:			
	Population density	Share of rural pop.	Share of women	Left-vote share 1965-1961
	(1)	(2)	(3)	(4)
Log distance closest IUDs	53.69	0.35	0.07	0.36
	(36.50)	(0.46)	(0.06)	(0.29)
Observations	307	307	307	304
Area fixed effects	Y	Y	Y	Y
Avg. dependent variable	-156.9	-4.641	0.358	-4.820

Notes: The dependent variables in all columns are measured cross-sectionally as changes between the 1970 and 1960 censuses except for column 4 where we measure it as changes between the 1961 and 1965 Congress Elections. The changes in shares in columns 2 and 3 are multiplied by 100. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

TABLE A21: Plausibly exogenous bounds for IV estimates (Conley et al., 2012)

	Main specification
$\bar{\delta}$	90% CI for coefficient on T_{1973}
0.05	[1.04, 4.85]
0.10	[0.82, 5.09]
0.15	[0.59, 5.33]
0.20	[0.36, 5.57]
0.25	[0.14, 5.81]
0.30	[−0.09, 6.05]
0.35	[−0.32, 6.29]

Notes. This table reports bounds based on the plausibly exogenous approach of Conley et al. (2012). We allow the excluded instrument (log distance to the closest hospital offering free IUDs) to have a direct effect on left-wing vote share in 1973 of magnitude $\delta \in [-\bar{\delta}, \bar{\delta}]$, in addition to its indirect effect through T_{1973} (the standardized share of milk beneficiaries). Entries report the 90% confidence interval for the IV coefficient on T_{1973} under alternative values of $\bar{\delta}$. The interval remains strictly positive for $\bar{\delta} \leq 0.27$ and begins to include zero at $\bar{\delta} \approx 0.28$, indicating that overturning the baseline IV result would require a non-trivial direct political effect (42% of the reduced form) of proximity to IUD hospitals beyond its effect through fertility and milk exposure. See Table 6 (column 3, panel A) for the corresponding IV estimates.