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Ran Abramitzky, Netanel Ben-Porath,
Victor Lavy, and Michal Palgi

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The Hebrew University Campus, MT. Scopus, 9190501 Jerusalem, Israel
www.falk.huji.ac.il

Financial Crisis in a Socialist Setting: Impact on Political Behavior, Social Trust, and Economic Values *

Ran Abramitzky[1], Netanel Ben-Porath[2], Victor Lavy[3], and Michal Palgi[4]

[1]Stanford University & NBER
[2]Northwestern University
[3]University of Warwick & Hebrew University & NBER
[4]University of Haifa

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Abstract

Research on the political and social impacts of financial crises has focused chiefly on free market economies, hindering our understanding of their effects in other settings. We exploit an episode of a financial crisis that hit the Israeli kibbutzim to study its impact in a socialist context. Contrary to findings in capitalistic economies, the crisis led to increased support of liberalized labor markets and reduced support for leftist political parties. These effects persisted in the long run, especially among the young. The crisis also reduced trust in leadership, but trust was restored shortly after agreements to settle the debt were signed, relieving the severity of the crisis. Our findings suggest that economic shocks may have different effects in a free market and socialist systems, in both cases leading individuals to question their current system.

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A new revolution is possible only as a result of a new crisis - Marx and Engels (1850).

1 Introduction

Economic crises disrupt lives, reshape societies, and alter policies. They can also have long-lasting political implications. Following the financial crisis of 2008, new research focused on the impact of economic downturns on political preferences. Reviewing this recent literature, Margalit (2019) summarizes that: "Experiencing negative economic shocks, primarily job loss, increases support for a more expansive social policy and redistributive measures" (pp. 279). The argument is that individuals who become sufficiently poorer due to a negative economic shock will be interested in the state expanding its welfare programs. In addition, deep-rooted beliefs, such as in the importance of luck in determining economic status (Alesina and Fuchs-Schündeln, 2007; Piketty, 1995), may change as a consequence of a crisis.

This conclusion that financial crises would cause people to adopt more leftist attitudes is based mostly on studies of free market economies. How do financial crises affect political preferences in a socialist rather than capitalist context? And what can we learn from this on the fundamental mechanisms through which economic crises shape the political arena? Given that individuals living in socialist settings differ in dimensions such as attitudes, education, and information (Alesina and Fuchs-Schündeln, 2007; Abramitzky and Sin, 2014; Fuchs-Schündeln and Masella, 2016) the ways in which crises operate may also be different. Importantly, as many socialist countries have experienced harsh economic downfalls throughout the years, most prominently the USSR and China, understanding how financial crises shaped perceptions in this setting is important. Our paper suggests that economic crisis may anticipate the future collapse of socialist economies by silently changing attitudes toward socialism.

To answer these questions, we focus on Israeli kibbutzim (plural of kibbutz), communities considered among the most successful and longest-lived experiments in voluntary socialism. We use the fact that different kibbutzim experienced financial crises of different severity as a quasi-natural experiment to study the effect of the financial crisis on attitudes toward free market economies and toward socialism. Using new surveys and voting data, we find that members of kibbutzim that experienced more severe financial crises increased support for the liberalization of labor markets and reduced support of socialism. This shift in attitudes persisted for over two decades, long after the financial crisis was resolved. In contrast, we find that while the crisis caused a decline in the trust of kibbutz leadership, signing a debt relief agreement that relieved the severity of the crisis restored this trust.

During the 20th century, each kibbutz operated as a semi-independent economy in which most members worked within the kibbutz. Members owned their assets jointly, and individual monthly

income was set to be equal for all members regardless of education or productivity. An unexpected financial crisis hit some kibbutzim more than others. In the decade before the crisis, kibbutzim had borrowed heavily to expand their industries and improve housing conditions. Their loans were cheap to repay because they were not indexed, and inflation ran at 400 percent per year. However, in 1985 the Israeli government undertook a comprehensive stabilization program to bring inflation under control. This meant the high nominal interest rates faced by kibbutzim became high in real terms, leaving many kibbutzim in huge debt they could not repay. Monthly allowances, travel budgets, and communal activities were reduced or eliminated. As Abramitzky (2018) describes: "It [this crisis] also meant a strong sense of despair, and a huge loss of confidence, a similar feeling to what a rich person would experience when she discovered she had lost everything."

As a result, the kibbutzim experienced varying degrees of financial distress, creating variations in their living conditions for the first time. Some kibbutzim accumulated high debts and needed immediate rescue plans; others were more moderately hit, while others were unaffected. We exploit the variation in the intensity of the crisis to study the effects on attitudes toward competitive labor markets, political preferences, and trust in leadership. We further explore the potential role of settlement agreements (some of these loans were erased, and others rescheduled) between kibbutzim, the government, and the banks, which were signed in the 1990s.

For our main analysis, we use repeated cross-sectional survey data from the Institute for the Research of the kibbutzim and Cooperative Idea. From 1989 until 2018, the institute conducted an (almost) annual survey eliciting kibbutzim members' opinions on various political, social, and economic subjects. From this survey, we extract measures of kibbutzim members' trust in leadership and support of liberalized labor markets. The fact that the survey spans until 2018, twenty years after the end of the crisis, allows us to measure its long-term effects. The survey also includes demographic information that allows us to include individual-level controls and perform heterogeneity tests.

For our identification, we exploit that the intensity of the crisis of each kibbutz was determined mainly by the kibbutz's financial portfolio and unrelated to its baseline ideological level. We support this primary identification assumption with additional evidence, using pre-crisis proxy variables of ideology at the kibbutz level and showing that they are unrelated to the crisis severity. First, we show that crisis severity is uncorrelated with several kibbutz-level characteristics measured in the 1972 and 1983 censuses. Second, we demonstrate that the extent of the crisis is not related to the kibbutz's affiliation with one of the two more ideological movements, Artzi and Meuchad, which were closer to the communist philosophy than the rest of the kibbutzim. Third, we demonstrate that while post-crisis voting behavior is correlated with an individual's ideology, pre-crisis voting behavior in kibbutzim was unrelated to the crisis's strength. Another interesting supporting evidence for our identifying assumption hinges on the kibbutzim tradition of children's communal sleeping

arrangements. Children did not sleep with their parents but rather in the 'children's house' with other children. However, since the early 1970s, kibbutzim gradually moved to the familial sleeping model. The most ideological kibbutzim kept the 'children's house' sleeping tradition longer, but even they eliminated it by 1991 during the first Gulf war. We show evidence that the timing of this transition is unrelated to crisis intensity.

Lastly, we exploit a unique natural experiment whereby differences in members' attitudes toward whether to support the Soviets during the Cold War led to significant strife within the kibbutzim movement in the 1950s. This ideological strife led to a split in several kibbutzim, creating the Ichud and Meuchad branches. Many kibbutzim branched off into new kibbutzim, divided only on ideological grounds. We show that within this sample of split kibbutzim, there is no association between being part of the Meuchad or Ichud movement and the crisis' severity. These diverse balancing tests of the relationship between the crisis severity and pre-crisis socialist ideology constitute solid evidence that supports our interpretation that the post-crisis differences in norms and values are casually related to the crisis effect.

We find that the harder a kibbutz was hit by the crisis, the more its members supported the liberalization of labor markets. The crisis had a similar effect on individuals of all ages in the short term. The effect also persisted in the long term – twenty years after the crisis had ended – but to a lesser degree among older members. The finding that the financial crisis lowered support for redistribution stands in contrast to evidence from capitalist societies.

Consistently, the crisis led to a reduced support of less socialist political parties in national elections. We document a shift toward voting more to the center- and the right-oriented political parties at the expense of the left, the camp with which kibbutzim were historically closely affiliated.

At the same time, similar to other findings (Margalit, 2019; Chen and Yang, 2015), we find that the crisis hurt trust in the kibbutzim leadership. Yet, this effect was only transitory, completely reversed seven years after the crisis had ended. We relate this reversal to the signing of a debt restructuring agreement between the kibbutzim, government, and banks. This settlement paved the road to financial recovery, improved the perception of the kibbutz's economic status, and eventually restored trust in the kibbutz leadership. In other words, the increased support for liberalization persisted even after the trust was restored. This finding is consistent with Cantoni et al. (2017), which found that implementing a school curriculum that aimed to enhance support for the socialist party in China has raised trust in its leadership while decreasing support for liberalized markets. Restoring trust is important, however, because trust has been linked to many desirable social and economic outcomes, such as civil political participation, individual well-being, institutional competence, reduced corruption, crime reduction, and economic growth (Zak and Knack, 2001; Rothstein and Uslaner, 2005; Nunn and Wantchekon, 2011). Our findings suggest that policymaking can rehabilitate political trust (Bottasso et al., 2022).

Our findings are consistent with the idea that economic shocks may cause individuals to question their current economic system, be it free market economy style or socialist economy capitalist or socialist systems. In the first, this may mean opting for more egalitarian systems. However, under a socialist system, an economic crisis might generate doubt about centralized planning and raise support for liberalized markets. This explains why our results diverge from those in the literature. It is also consistent with the fact that in both capitalistic and socialist settings, political trust tends to plummet as a consequence of the crisis.

Thus, our findings in this paper demonstrate how an economic crisis changes attitudes and perceptions. In our specific context, it eventually led to a sharp policy change – the liberalization of labor markets in kibbutzim. In another paper, we show that this subsequent liberalization further decreased support for socialism and increased support for liberalized markets, albeit with an improved safety net (Abramitzky et al., 2023). We note that in our analysis we control for this reformation, ensuring that our results are not driven by it.

The rest of the paper is organized as follows. Section 2 summarizes our contributions in relation to the current relevant literature. Section 3 gives a brief historical background of the kibbutzim movement and the economic and social crises they underwent. Section 4 presents the data we use, our explanatory variables, and some descriptive statistics. Section 5 provides evidence that the economic crisis' intensity was not related to the baseline ideology and an outline of our empirical strategy. Section 6 presents our estimates of the crisis' effect on various cohorts and offers a set of robustness checks. Section 7 studies the political and electoral impacts of the economic crisis. Section 8 studies the effect of the debt restructuring agreement. Section 9 concludes.

2 Related Literature and Our Contribution

Our paper contributes to five strands of the literature. The first includes studies on the effect of negative economic shocks on political perceptions. For example, Margalit (2013; 2019) shows that economic misfortune, such as being laid off, raises support for redistribution. In a socialist context, our findings show the opposite, as the financial crisis in the kibbutzim reduced support for a centralized economy, endorsing free market mechanisms. We show that in a socialist context, negative economic shocks induce individuals to reduce, rather than increase, their support for redistribution.

We find in the literature two possible explanations for this divergence in results. Fisman et al. (2015) find that people who experienced an economic recession emphasize efficiency versus equality. So, it may be that in the kibbutz context people viewed the centralized collective system as ineffective because of the crisis. Another possible explanation is that economic misfortunes lower trust in political institutions (Algan et al., 2017). This is especially true in the case of financial

crises similar to the one we are investigating (Funke et al., 2016). Thus, it may be that the crisis caused people to lose trust in the traditional socialist institutions that governed the kibbutzim for close to a century. We present results that are consistent with both explanations. Overall, both reasons suggest that the conclusion according to which experiencing crises induce greater support for redistribution should be nuanced. Our results highlight that crises might cause individuals to lose faith in the economic system during the crisis. In capitalistic contexts, it pushes people to the left, while in socialist regimes, to the right. Our paper also provides a more comprehensive view of how people update their views about their economic system.

Another innovative part of our paper analyzes the impact of recovering from a crisis by signing the debt restructuring agreement. Previous research found that recovering from an individual's economic misfortune led to a return to pre-crisis ideology (Margalit, 2013; Martén, 2019). We, however, do not observe such a reversal caused by the signing of the debt settlement agreement, suggesting a difference between an individual and a communal recovery

These findings are related to the work of Chen et al. (2016). They find that reminding an historical major redistributive policy to Chinese respondents changes demand for redistribution. Descendants of beneficiaries become more favorable towards redistribution while descendants of victims become less favorable. Our work shows that in a voluntary socialist context, victims of an economic downturn reduce support for redistribution, and even when the downturn is unrelated to a policy decision directed at redistribution. Moreover, both works show these changes can persist for decades.

Second, we contribute to the literature investigating the determinants of electoral voting in general and the electoral effects of economic crises. In line with the finding that the upshot of economic distress adopts a more leftist perspective, researchers have affiliated adverse economic shocks with the left parties gaining electoral votes (Wright, 2012; Che et al., 2016). We find the opposite: The kibbutzim's financial crisis caused people to move rightwards politically, as evidenced in national elections.

Several mechanisms can link this change in ideology to electoral behavior. First, it could be that kibbutzim members changed what they viewed as their self-interest (Alesina and La Ferrara, 2005; Cusack et al., 2006; Rehm, 2009). However, such a mechanism is unlikely because the left parties were more inclined than the right parties to support the kibbutzim. In addition, the left parties are historically tightly affiliated with the kibbutzim movement. If anything, the political shift of some of the kibbutzim members reflects a vote against their self-interest. Another possibility is that kibbutzim members decided to vote for the center and right parties to directly manifest the rightward shift in their economic ideology. As some authors have noted, people do not vote only because of considerations of self-interest but also because of ideology (Alesina et al., 2004; Margalit, 2013).

The literature also offers a third explanation. Economic distress has been linked to voting for more anti-establishment parties and against incumbents (Funke et al., 2016; Colantone and Stanig, 2018). This is supposedly driven by the loss of trust in the establishment. Therefore, the shift to the right parties may result from kibbutz members holding the left parties responsible for their misfortune and wanting to punish them electorally.

The documented shift in trust is related to a third literature we add to: the determinants of trust in political authorities. Investigating the impact of the Covid-19 outbreak on political trust Bottasso et al. (2022) claim that the quality of local authorities determines the extent of loss in trust in them. Additionally, consistent with our results, Chen and Yang (2015) show that the Great Chinese Famine has reduced political trust considerably. Similar to our settings, the Famine was a consequence of policy failures. Yet, while the kibbutzim responded by signing debt agreements, and subsequently even liberalized their labor markets, Chinese authorities have responded in propaganda efforts, blaming drought for the disaster. These efforts were unsuccessful in rehabilitating trust in areas in which weather conditions were relatively good. Thus, taken together the two works demonstrate the importance of adopting sound policies to recover trust.

Our work also relates to the literature investigating how life episodes affect norms, values, and trust at different ages. Psychologists have suggested that political perceptions are most amendable to life events during late adolescence and early adulthood. Later events have a lesser influence on one's attitudes (Krosnick and Alwin, 1989). Our results generally fit this literature, though offering an important nuance. Reactions to economic crises in the short term seem similar across age groups, and it is only in the long run that it diverges by age. In line with this literature's predictions, we also show that the economic shock did not affect the youngest cohorts, those aged 0-12, during the crisis. Perhaps they were too young to update political attitudes following external events.

Finally, without overselling the external validity of our findings, our work may add to the understanding of the shift from socialist regimes to the more market-oriented systems that took place at the end of the last century (Blanchflower and Freeman, 1997; Ravallion and Lokshin, 2000; Alesina and Fuchs-Schündeln, 2007). The fall of the communist regime in eastern Europe and Russia resulted from an acute economic crisis. We offer unique evidence of how an economic crisis in a socialist context may affect norms and values and raise the demand for introducing liberalized economic ideas (Abramitzky and Sin, 2014).

3 Brief Historical Background

The Israeli kibbutzim are voluntary communities where members have lived with high-income equality for almost a century. Among the key features of the kibbutzim are that "all assets belong to the kibbutz and members have no private property [...] Each member of a kibbutz received an equal

share of the total income regardless of her ability and effort [...]" (Abramitzky 2008: 1118-1119). Most kibbutzim were established in the 1930s and 1940s, and today there are over 270 kibbutzim located all over Israel. The number of members in these kibbutzim amounted to 120,000 members, or 2.6% of the Jewish population in Israel (Ibid).

Kibbutzim act as semi-independent economic units, but there are affiliated with movements that vary in their level of socialist ideology. Kibbutzim affiliated with Artzi hold the most socialist ideology and are considered more conservative in preserving kibbutz values (Abramitzky, 2008). [1] We later explore whether kibbutzim with different ideologies responded differently to the financial crisis.

Since the establishment of the state of Israel, the kibbutzim had close ties with the left, more socialist parties. We will later explore the extent to which kibbutzim shifted away from voting to the left as another indication of attitudes shifting away from socialism.[2]

The economic crisis during the late 1980s and 1990s affected kibbutzim differentially. Following the dramatic government anti-inflation program in 1986, many kibbutzim experienced a severe financial crisis, with many at risk of loan default and bankruptcy. In the decade before the financial crisis, kibbutzim had been borrowing on a large scale, largely to finance improved housing and other kibbutz facilities. At first, the loans were not linked to the cost-of-living index and were easy to repay escalating inflation. However, the indexation of loans, and the artificially high-interest rates announced by the government in 1985, left many kibbutzim with high debt levels. For a detailed discussion, see Abramitzky (2008).

To handle the crisis, the government, along with the banks and the kibbutzim, created the Kibbutz Arrangement Board in 1989. Some kibbutzim were severely hit and needed immediate assistance, others were more moderately hit, and others were not. The government tried to prevent the collapse of the kibbutzim through a series of loan resettlement agreements, an issue we turn to later.[3]

[1] There are three associations (ideological movements), and each kibbutz is affiliated with one. These are the Takam (60% of kibbutzim), the Artzi movement (32%), and the religious movement (6%). Our analysis focuses only on the first two (secular) groups. In 1999 the Takam and the Artzi movements were united, but their ideological predispositions persisted (Ben-Rafael and Shemer, 2020).

[2] The Takam was affiliated with Mapai (The Workers' Party), later becoming the Labor Party. Mapai was founded in 1930, and throughout its existence, it was the largest, most dominant, and most powerful party in Israel. Its ideology was Zionist-socialist, though generally, it was a pragmatic movement. The Artzi movement was affiliated with Mapam (United Workers' Party), later becoming the Meretz Party. Mapai was founded in 1930, and throughout its existence, it was the largest, most dominant, and most powerful party in Israel. Its ideology was Zionist-socialist, though generally, it was a pragmatic movement. The left-wing parties supported the kibbutzim, which formed their electoral base. Since the left formed the government coalitions in 1977, formal Israeli institutions supported the kibbutzim greatly. However, after the Likud party came to power in 1977, the kibbutz lost priority status as the government prioritized the West Bank settlements (Ben-Rafael and Shemer, 2020).

[3] The first, in 1988, failed, and the second was more successful in 1996 (Rosenthal and Eiges, 2014). The latter included 214 kibbutzim and allowed the banks and government generous loan forgiveness (Ibid).

4 Data

4.1 Measuring Attitudes

We use data from a yearly survey conducted among kibbutzim members between 1989-2020 by the Institute for the Research of the Kibbutzim and Cooperative Idea at the University of Haifa. The sample is a repeated cross-section of individuals from 200 kibbutzim and is overall representative of kibbutz members.[4] We focus our analysis on kibbutzim from the Takam and Artzi movements, dropping religious kibbutzim because they were very few and generally did not experience the crisis. In addition, throughout this work, we restrict our sample to individuals born in the kibbutz or those that moved to it before the end of the crisis (until 1996). This ensures that immigration patterns are not driving the results. After these restrictions, our sample includes 17,637 observations.

The surveys elicit kibbutz members' attitudes toward free markets and socialism and their perception of the kibbutz and its leadership. These serve as the outcome variables for our main analysis. In the questions of interest, the respondents are asked to rate on a 5-point Likert scale ranging from 1 (strongly oppose/disagree) to 5 (strongly support/disagree) the extent to which they support/agree with a series of statements. We create an index based on the mean of the standardized scores for questions about labor market attitudes and trust in leadership. The free labor market index is constructed based on answers to these equally weighted questions: whether a higher wage should compensate individuals that work more, whether the kibbutz should undergo a process of privatization, and finally, whether the kibbutz should pay differential wages. [5] This index allows us to compare the answers to different questions on a unified scale. A higher score in the index suggests higher support for liberalized markets. The trust in leadership index is constructed using two questions: the trust level in economic leadership and social leadership. A higher score indicates higher trust levels in leadership.

4.2 Measuring the Severity of the Financial Crisis

We also use the surveys to measure our main explanatory variable – the perceived degree of the crisis in each kibbutz. To do so, we use the answer to the question, "How would you define the situation of your kibbutz today from an economic perspective". The respondents were asked to rate on a 5-point Likert scale ranging from 1 (Not Good at All) to 5 (Very Good). We use the

[4] Until 1998, the survey was carried out by filling out paper questionnaires, and since then, it was changed to an online format. The sample included 200 (out of 268) kibbutzim every year (though the 200 selected kibbutzim changed yearly) and targeted individuals randomly chosen in each kibbutz. This survey contains demographic characteristics (gender, age, family status, income, and level of education). This allows us to compare the sample's means of demographic variables to the means of all kibbutzim populations, which we do in another work (Abramitzky et al., 2023). We found that the sample is overall representative of kibbutzim members.

[5] From the 2001 survey, an additional question was added to the questionnaire regarding underpayment for people who work less. We do not use this question because its sample is much smaller.

average score given at each kibbutz from 1989 to 1996 – the peak years of the financial crisis and before most kibbutzim signed the debt restructuring agreements – as our measure of the degree of the financial crisis. We also create two alternative non-survey-based measures of the severity of the financial crisis in each kibbutz – the crisis severity of each kibbutz as assigned by the government and the credit rating of each kibbutz as assigned by Dunn and Bradstreet (D&B). First, as part of the attempt to reach an agreement between the government, the banks, and the kibbutzim to resolve the crisis, kibbutzim were divided into four groups, reflecting how severely the financial crisis hit them. Second, D&B calculated the credit rating to evaluate the economic value of the kibbutzim. The credit rating also divided the kibbutzim into four groups, and it was based on economic strength, debt per member, ability to repay debt as reflected by economic forecasts of the kibbutz Arrangement Board, type and diversification of industries, and kibbutz's land value (Abramitzky, 2008). These measures give an indication of how external experts documented the variation in the severity of the crisis across kibbutzim.

Using the survey-based estimate of the crisis severity instead of the external measures has four significant advantages. First, it permits computing it for more kibbutzim in the sample. The two expert-based measures of the severity of the economic crisis are not available for all kibbutzim. Second, it has a larger variation, as the two other measures are coarse and do not catch the full variation of the crisis. Third, it results in a continuous measure of the severity of the crisis instead of the discrete division of kibbutzim into four degrees of the crisis. Fourth, since we estimate the impact of the crisis on beliefs and values, we posit that the perceived measure of the crisis is the most relevant variable. However, the survey-based measure reflects the perception of the crisis, which can depend on the pre-crisis values making it potentially endogenous. We respond to this concern in two ways. First, we show that it is not correlated with a proxy of the pre-reform values (voting patterns). Second, we show that the estimates we obtain based on this perceived measure are very similar to those obtained using the two expert-based measures of the crisis.

As kibbutz members were well aware of the crisis in their kibbutz, we posit that the three measures of the crisis are highly correlated. Indeed, Tables 1, 2, and A1 in the online appendix show a robust positive correlation between the three measures of crisis intensity. Table 1 shows summary statistics for the three measures, and Table 2 shows their correlation. We obtain similar estimated correlations when we use only data for 1989-1995 or 1989-1994 to compute the survey-based measure. Table A1 in the online appendix presents the joint distribution of the economic status measures. Since we divide the survey-based measure into quartiles, the matrix includes off-diagonal observations.

To further study the association between the survey-based and external measures, we also examine the accuracy of the assessment for different groups. We take different groups and calculate the survey-based measure of each kibbutz while using only the groups' responses, and then check

the correlation with the objective measures. We find that for males and females, with and without a college education, the assessments are similar and highly correlated with the objective measures. However, when we examine by age groups, we find a slight decline in the correlation for the youngest cohort (13-21 during the crisis). This indicates that the youngsters were aware of the crisis' true severity to a somewhat smaller degree than the elders. Still, the correlation is very high, about 0.65, ensuring that younger cohorts were generally well aware of the crisis. These findings indicate that using survey-based measures does not create unwanted bias.

One concern about using the survey-based measure for crisis severity is that the same observation is used to calculate both dependent and independent values, which may lead to a mechanical correlation between the variables. For example, if an individual tends to give a higher valued answer to Likert-scaled questions, taking this individual into account for both the dependent and independent variable calculation will bias the results without capturing the true association between crisis intensity and political attitudes. To address this concern, we never use the same observation to determine the dependent and the independent variables.

We accomplish this by employing a Jackknife estimation. This means we calculate the explanatory variable for each observation sampled before 1996 as the average economic rating given to the kibbutz excluding said observation. This procedure guarantees that the same individual never determines the dependent and independent variables in the same row. So, we will not have a mechanical correlation when checking the association between crisis intensity and political preferences as described above. In table A7, which we discuss later, we also conduct our analysis starting only from 1997, ensuring complete separation between the calculation of the dependent and independent variables. As we show, this procedure does not affect our results.

5 Empirical Strategy

5.1 Exogeneity of the Crisis

As mentioned in the historical background, the intensity of the crisis in each kibbutz was determined to a large extent by its particular financial portfolio, which was constructed regardless of the ideology. To validate this claim, we provide several supporting pieces of evidence that the crisis was not related to baseline norms and values.

In Table 3, based on the Israeli 1972 and 1983 censuses, we present balancing tests of observables by the severity of the financial crisis. We find that the severity of the crisis in 1989-1996 is not significantly related to any measures from the 1972 census except for the kibbutz's size. Based on the 1983 census data, it is related only to the kibbutz size and the average number of children in the kibbutz. Thus, while there are some imbalances between kibbutzim pre-crisis, there are no significant systematic differences in the selected observables. We later control for these imbalances

to remove concerns they may generate.

The most important finding in Table 3 is that the severity of the crisis is not related statistically to a kibbutz affiliated with the "Artzi" movement (column 10). Kibbutzim that were part of the Artzi movement generally have a 'leftist' orientation and hold more socialist values. Thus, if there is a correlation between how 'socialist' a kibbutz was before the crisis and its severity, we would expect to see a correlation between Artzi movement affiliation and the crisis's severity. However, we find no such correlation.

We exploit a unique episode to examine further the correlation between the pre-crisis ideological dispositions and the severity of the financial crisis. Within the Takam (less ideological movement), there were two sub-ideological movements: Meuchad and Ichud. These sub-movements were established due to strife in some kibbutzim following the death of Stalin in the 1950s. The Meuchad movement was more socialist and identified with Stalin's policies and the communist Soviet Union, while the Ichud movement was less ideological and rejected Stalin and his policies. We first do a simple balancing check, correlating the severity of the crisis in each kibbutz with the affiliation with one of the above two ideological movements. The evidence in column 11 of Table 3 demonstrates no statistically significant correlations.

We next perform a more elaborate examination. The ideological strife in the 50s caused many kibbutzim to split into two or more kibbutzim. The ideological differences were so large and meaningful, causing kibbutzim members not to want to be members of the same community anymore. In some kibbutzim where Ichud members were a majority, the more ideological individuals moved to Meuchad kibbutzim, and vice versa. Some kibbutzim even split, creating two kibbutzim with identical names but with an affiliation to a different ideological movement. We create a sample that consists only of kibbutzim that either experienced significant mobility of its members or that split because of ideological strife. We classify them as Ichud (less socialist) and Meuchad (more socialist) and regress the crisis severity measure on a dummy indicator of ideology affiliation. The underlying assumption is that because members originate from the same kibbutzim, they are similar across many dimensions so that we can capture the effect of ideology at the pre-crisis time on the severity of the crisis. We do this with and without fixed effects at the group level. As shown in Table A2, the coefficients are not significantly different from zero. Moreover, they are of small magnitude, indicating no correlation between the pre-crisis ideology in this sample and the economic situation in the 90s.

In Table A2, we also present the result of an additional test. Initially, in each kibbutz, all children stayed in a shared children's house from birth. They spent most of their time in this house, where they also slept. Children spent only a few hours with their parents every afternoon. The idea was to ensure equality among children and endow them with socialist values. However, with time, as the socialist zeal decreased in kibbutzim, parents started demanding to move away

from this arrangement and have their children sleep at home. Over time, more and more kibbutzim succumbed to the pressure posed by the parents and abolished the common sleeping arrangement. Most kibbutzim adopted this change during the 70s and 80s, with almost all others completing the transition by 1991. [6]

We posit that the stronger the Socialist ideology in the kibbutzim, the later the transformation into a familial sleeping arrangement. This is because there was less pressure from parents in these kibbutzim, and their leadership was less likely to succumb to such pressure. Indeed when we regress the free labor market index (measured in 1991-1996) on the year of transformation to the familial sleeping arrangement, we find a statistically significant correlation between the two variables. However, we see a null effect when we regress the crisis severity on the year of the sleep arrangement change. This evidence indicates that the economic crisis was not correlated with the pre-period ideology levels.

As a final test, we check the electoral voting patterns of kibbutzim before the crisis. The underlying assumption is that norms and values in each kibbutz are correlated with the political vote. Therefore, we focus on the three preceding national elections before the crisis – 1977, 1981, and 1984. The data is from the Central Elections Committee of Israel. For every election to the Israeli parliament (Knesset), the data includes locality and election poll, the number of eligible voters, and votes cast for each political party.

During this period, most kibbutzim members voted to the left, in line with their socialist ideology. So, we focus on the voting patterns of the three major leftist parties: The Labor party (Avoda), The Citizen Civil Liberty Party (Ratz), and the communist party (Hadash). First, we take the votes cast in each kibbutz and the electoral voting rate. Then, we regress it on the survey-based measure of the crisis severity, controlling for affiliation with Artzi for each voting year separately. We depict the results in the online appendix Table A3. Kibbutzim that were better off during the crisis had higher turnout rates before the crisis, but this is a slight difference, less than 1%, compared to the baseline of over 85% (see Table A12). In 1977, when examining the continuous specification, there was a slight imbalance in voting for the Communist and the Civil Liberty Movement. However, this imbalance disappears when the explanatory variable is measured discretely. More importantly, it vanished in 1981 and 1984, so we do not think it is a concern for our identification strategy.

Overall, the kibbutzim seemed balanced in electoral behavior before the crisis. But does this indicate that they were indeed balanced over ideology? To examine this, we study the effect of being part of the Artzi movement on electoral outcomes. When we regress the voting for each party affiliated with Artzi, pooling the years together, we obtain the following results: for the Labor

[6] During the 1991 Gulf war, the shelling of missiles into Israel by Iraq, led the remaining kibbutzim to move into family sleeping arrangement.

party, the estimated coefficient is 5.291 (SE=1.138). For the Communist party, we have 0.246 (SE= 0.0719); for the Civil Liberty Movement, the coefficient is 0.118 (SE 0.564). Overall, these results suggest that pre-crisis voting correlates with our ideological measure. We conclude that this evidence reinforces our assessment that there is no correlation between ideology and crisis severity in pre-crisis times. Yet, in section 7, we will show that there is a strong relationship between ideology and voting in the post-crisis period.

5.2 Regression Specification

Next, we perform a more formal estimation and extend our analysis. To study the impact of the economic crisis on norms, values, and trust, we estimate the following equation:

$$Q_{ikt} = \beta \cdot Crisis_k + \gamma_t + X_{it} + Z_{kt} + u_{ikt} \tag{1}$$

Q_{ikt} is the answer for a specific question of person i from kibbutz k at survey year t. $Crisis_k$ denotes the severity of the crisis. γ_t is a survey year fixed effect. X_{it} is a vector of demographic controls for individual i at survey year t. Z_{kt} is a vector of controls at the kibbutz level, for kibbutz k at time t. An important variable included in Z_{kt} is whether a kibbutz has already reformed to a model with differential wages and privately owned assets (Abramitzky and Lavy, 2014). We estimate this regression with samples of different age groups. Given the evidence shown above that suggests that the economic crisis' intensity was not related to pre-crisis ideology, this estimation identifies the causal effect of the crisis on values and norms.

6 Results

6.1 Graphical Presentation

Under the assumption that the crisis was not related to the pre-existing norms – which we supported in several ways in the previous section – we can present preliminary results on its casual impact. In Figure 1, we divide the kibbutzim into four groups according to how severely the crisis hurt them. In Panel 1a, we split the sample into quartiles for the survey-based measure. Next, we calculate each group's weighted free labor market index means separately. As can be seen, for all three measures, the support for liberalized labor markets increased monotonically with the severity of the crisis.

In Panel 1b, we perform the same exercise to study the effect of the financial crisis on trust in leadership. We separately calculate each group's weighted mean of an index of trust in leadership. The relationship here is reversed: The more severe the crisis, the lower the trust in leadership. Together, these two Panels demonstrate the first main finding of the paper: The financial crisis in

kibbutzim increased the support for liberalized labor markets and decreased the trust in leadership.

In Figure 2, we focus only on the survey-based measure. We split our sample into two subsamples: short-term (1991-2003) and long-term (2004-2018). We chose these periods because 2003 is the median year of our sample. We calculate the average free labor market index for each group and period in Panel 2a. Figure 2 reveals that the effect of the crisis persists in the long term; the differences in the labor index between the four groups are similar in magnitudes in both periods. In Panel 2b, we calculate the average trust in leadership index for the same quartile-period cells. Here we can see that while the evidence has the same pattern as in Figure 1, the effect in the long-term Panel is substantially smaller. While the difference between the first and the last group in the short term is about 0.45 SD, it is only 0.15 SD in the long run. This indicates that the effect on trust is mostly transitory, while the effect on attitudes regarding free labor markets is more permanent.

In Figure A1, we plot the yearly variation in the survey-based measure (A1a), the labor market (Panel A1b), and the trust index (Panel A1c). We calculate the weighted mean of the outcome variables for each quartile and year between 1991 and 2018. Three conclusions can be drawn from this Figure. First, in Panels A1b and A1c, we observe that the same relationship between the crisis' severity and the indices holds even when doing a by-year analysis. Trust converges in the long run, while free labor market support does not. Second, by the mid-2000s, most of the kibbutzim reported similar economic statuses, indicating differences in wealth caused by the crisis closed by that time. Lastly, the fourth quartile does not converge over time to similar levels in the outcome variables as the other groups. This hints that this group of kibbutzim might be on a different time trend than other kibbutzim. In Table A8, we run our main specifications while excluding this group from the sample. The results are unaffected by this sample restriction.

6.2 Regression Results

We begin our regression analysis by examining the average effect of the crisis on labor market attitudes and trust levels. We focus on a sample of kibbutz members who were 13 years or older during the crisis and lived in a kibbutz. We follow the literature in psychology here, positing that a child's worldview is affected by economic shocks to a lesser extent than other age groups (Krosnick and Alwin, 1989). Finally, we confirm this view by examining the effect on those exposed to the crisis as young children and show that they were hardly affected.

We use the free labor market and the trust in leadership indices as dependent variables. As explanatory variables, we use each of the three economic measures. To make the survey-based measure comparable to the other two measures, we divide its range into four quartiles and assign them the values 1, 2, 3, or 4. In our 4th specification, we use the survey-based measure as our explanatory variable but restrict the sample only to the kibbutzim sample with economic strength and credit rating measure. This procedure rules out the possibility that sample differences affect

the results. Note that all three measures have ordinal but not cardinal values, so we enter them discretely into our model.

We report our findings in Table 4. In columns 1, 3, 5, and 7, we present the effect of the crisis on the free labor market index for the different measures. In columns 2, 4, 6, and 8, we estimate the effect of the crisis on the trust in leadership index according to the various measures. The coefficients for the labor index are positive and monotonically decreasing in all specifications. The more severe the crisis was, the larger the support for liberalized labor markets in the kibbutz. The estimated effect on trust is negative and monotonically decreasing in absolute size. Thus, the more severe the crisis was, the more significant the decline in support for the kibbutz leadership. We conducted a similar exercise, restricting the sample to only individuals born in the kibbutz or who took part in establishing it. The results, presented in Table A4, are very similar.

The estimates are highly similar across the four specifications for the labor index. The trust index results are also highly similar, although the estimated coefficients for the Economic Strength and Credit Rating measures are somewhat smaller. We conclude that overall the three measures yield highly similar and consistent results. Because the survey-based measure covers more kibbutzim and better captures the members' perception of the crisis severity, we focus our analysis on the survey-based measure in the main text and present analysis with the other measures in the appendix. We discussed in the data section the advantages of this measure over the other two in more detail. In addition, using this measure allows us to estimate also a continuous linear effect of the crisis, as the survey-based measure is based on a Likert scale.

In Table 5, we present, by the question, the effect of the crisis. Notice the coefficient change sign in the continuous specifications, as the higher the measure, the better off the kibbutz was during the crisis. The crisis has a statistically significant effect for every question when we use the continuous measure and assume a linear effect. Furthermore, the estimated impact declines monotonically when discretely entering the explanatory variable.

We add two comments about these findings. First, the estimated coefficient for the support of full privatization is smaller than the estimated coefficient for support for the two other labor market norms. While the economic crisis led to increased support for differential wages, some were not convinced that there was a need for full privatization of assets in the kibbutz. Also interesting is that the effect size on the trust of the social leadership is smaller than that of the economic leadership. This difference suggests that people differentiate between social and economic leadership and that a financial and economic crisis mainly affects the trust in those in charge of the economic affairs of the kibbutz.

6.3 Heterogeneity by Age, Gender, and Ideology

We next stratify our sample into different sub-samples according to how old each individual was during the crisis. The age groups are 0-12, 13-21, 22-30, 31-40, 41-50, and 50+. A subject is assigned to a group when his age is in the relevant range during the crisis (1987-1996). So, for example, the first group (0-12) contains all individuals born between 1975 and 1996. Note that this means that age groups are not mutually exclusive. The rationale for splitting our sample in this manner is the following. First, according to Krosnick and Alwin (1989), children should be affected by external political or economic events to a lesser extent as they are too young to grasp their full significance. So, we posit that ages 0-12 should be too young to be affected by the crisis and should be analyzed distinctly. As for the next group, men (women) in Israel must serve in the military until they are 21 (20). Usually, young adults do not change their housing location until the end of their military service. Hence, in the Israeli context, 21 is a natural age to split between the second and the third cohorts. Next, we define groups at every round number. Finally, we aggregate people 50+ together for sample size considerations.

The age groups are the relevant ages between 1987 and 1996 because this is the peak period of the financial crisis. We also test robustness to defining age groups only according to the age of the individual in 1991, ensuring groups are mutually exclusive. The results remain similar.

We also further stratify the sample into two sub-samples: the first is comprised of observations in the years 1991-2003, which we consider as capturing the short-term effects of the crisis, and the second in the years 2004-2018, which correspond to the long term. We choose these periods because 2003 is the median year in our sample. Thus, the estimates in the first period represent the crisis' effect while it was still ongoing and a short period after it ended. The estimates in the second period represent the effect of the crisis 7-22 years after it ended. For each age and long or short-term sub-sample, we estimate the effect of the crisis on the labor and trust indices separately. In Figure 3 and Table 6, we show the estimates based on the survey-based measure to keep the number of estimates reasonable. In online Table A5, we report estimates for each of the three measures using their discrete version.

For clarity, we first present our results graphically. We present each age group's short-term (red) and long-term (green) coefficients. We do so for the free labor market index in Panel 3a and for the trust in leadership index in Panel 3b.

Consistent with evidence in the literature, in all sub-samples, the results for age group 0-12 are null. This suggests that the crisis did not affect young children, though we cannot rule out the possibility that the null result is due to a small sample. We see in Panel 3a that in all other age groups, the coefficient of the long-term is somewhat closer to 0 than the short-term coefficient. This indicates that the effect of the crisis on ideology is declining in the long run. However, the gap between the long and the short term is wider the older the age group. So the effect of the crisis is

more persistent in the long term for younger individuals.

It is evident from Panel 3b that the long-term effect of the crisis on trust in the leadership is null in all age groups, in contrast to the statistically significant short-term effect. This means that trust is more amendable than ideology. Section 8 below offers a finding that may reveal one channel (the signing of the debt restructuring agreement) through which trust was recovered in the kibbutzim.

We also show the regression results in Table 6. In columns 1-2, we present the crisis' effect for the entire sample of each age group. In columns 3-4 we focus only on the short term, and in columns 5-6, we focus on the long term. Columns 3-6 essentially show the same information depicted in Figure 3.

A common criticism in kibbutzim was that the equal sharing system did not provide proper work incentives and led to free riding (Abramitzky, 2018). A question that arises is what caused kibbutzim members to change their ideology. As discussed in the introduction, one explanation could be that they lost trust in the kibbutzim's leadership, making them question their ideology. Another explanation is that they perceived the socialist system as inefficient, so they started advocating for what they perceived as a better economic system. We cannot distinguish these two explanations, but we bring evidence consistent with both of them. We calculate each kibbutz's average labor and trust indices from 1991 to 1996. For the same years, we also computed the average rating each kibbutz's members gave to the work ethics in their kibbutz. The opinion about work ethics likely captures the perception of one dimension of efficiency of the socialist system in the kibbutz.

Using these kibbutz level means, we then regress the labor index in the crisis years on the severity of the crisis, the average trust levels, and the score given to work ethics in the kibbutz. The estimated coefficient of the trust variable is -0.299 (SE=0.069), and that of the work ethics variable is -0.175 (SE=0.067). Hence, both coefficients are negative and statistically significant. This is consistent with both proposed explanations. So, at least from this correlational evidence, both loss of trust in leadership and lower belief in efficiency might have caused members to advocate for the transition to a liberalized labor market.

We perform several other heterogeneity analyses. First, we split the sample into males and females and ran our baseline specifications. As shown in Table 7, Panel A, there is no difference in how the crisis affected each group. Next, we stratify the sample in Panel B by Artzi and Takam movements. Finally, in Panel C, we divide the sample of Takam kibbutzim by affiliation with Ichud and Meuchad. When conducting this division, we do not find substantial heterogeneity.

6.4 Robustness

We conduct several analyses to check that our estimates are robust to different specifications. The labor index is the average score of three questions. However, not all questions appeared in the survey in all years. This may raise concerns that the varying composition of the labor index might bias our results. Yet, as shown in Table 5, we underscore that the effect of the crisis on each question separately is significantly negative, suggesting our results are robust. To alleviate any additional concerns, we report in Table A6 in the online appendix results when we restrict the sample to the years when all the questions appear. The estimates we obtain are similar to those presented in the text tables.

In Table A7 in the online appendix, we replicate the results of Table 5 when we compute the survey-based measure using only surveys in 1989-1995 or 1989-1994 to ensure the results are not sensitive to how we define the measure. Overall, the results are not sensitive to these alternative measures.

In another robustness check, we add kibbutz-level controls, including the kibbutz population, which we found to be slightly imbalanced concerning the severity of the crisis. These results are shown in the online appendix Table A8, columns 1-2. Adding these controls hardly changed the results.

In addition, we run the benchmark specifications while restricting the sample not to include observations during the crisis. In practice, we drop the observations from the 1989-1996 surveys. We present the results based on this sample in the online appendix Table A8, columns 3-4. The effects remain similar, indicating that our results are not driven by changes in attitudes during the crisis but reflect post-crisis trends. This robustness check also removes concerns that our findings reflect some mechanical correlation between the constructed dependent and independent variables.

As an additional robustness test, we drop from the sample all 38 kibbutzim for which the economic situation measure was based on fewer than ten observations. The online appendix presents these results in Table A8, columns 5-6. The results stay similar in this specification as well.

We noted earlier that the estimates might be sensitive to the inclusion of kibbutzim that were not affected by the crisis since they might be different in terms of unobservables. Therefore, in columns 7-8 of Table A8 in the online appendix, we report estimates based on a sample that excludes these kibbutzim. These estimates are very similar to those we reported for the entire sample.

Another concern is that our inclusion of a control for the timing of the reform in each kibbutz is endogenous. To alleviate this concern, we remove the three kibbutzim reformed before 1997 and conduct our analysis only until 1996, using the Economic Strength and Credit measures. This effect measures the crisis' effect until 1996, only on the sample of kibbutzim that did not reform by

then, allowing us to omit the control for reforming without omitted variable bias. We report the coefficients in Table A9, columns 1-4. As another strategy to address the concern about controlling for an endogenous variable (the reform), we also replicate Table 4, omitting this control variable. Results are reported in Table A9, columns 5-6. The results stay significant and in the same direction in all our tests.

Another potential concern might be that the financial crisis caused a demographic shift in kibbutzim. Our setting enables us to account for any immigration patterns to the kibbutzim, as we focus only on individuals born or raised in them. However, our specifications might be affected by emigration patterns from the kibbutzim. We note that such a demographic shift makes it more difficult for us to document an effect of the crisis. Many kibbutz members, especially the more educated and skilled ones, left their kibbutzim following the financial crisis (Abramitzky, 2008, 2009, 2018) , leaving kibbutzim that were hit harder by the financial crisis with a population that is both less educated and more committed to socialist ideas. Such a population should become more supportive of socialist ideas. Our findings that the financial crisis caused a shift away from socialist ideas are thus especially striking.

Yet, to examine whether this is a concern, we rely on a result of Abramitzky (2008), who finds that less educated individuals are less likely to leave the kibbutz. We stratify our sample to the same age groups, only this time, we keep only respondents with less than a college education in the sample. We omit the youngest cohorts (0-12 and 13-21) as acquiring education might be endogenous to the crisis' severity for these age groups. We report the results in Table A10. Results are highly similar to the results obtained from the full sample. Hence, it does not seem that emigration patterns are affecting our results.

Finally, we implement a Bayes shrinkage estimation strategy for the survey-based measure of economic status that accounts for the within-kibbutz noise in respondents' answers. In this strategy, the survey-based measure for a kibbutz is multiplied by its reliability, i.e., the ratio of signal variance to signal variance plus noise variance.[7] As a result, the survey-based measure for kibbutzim with higher variance in the rating of their economic status (kibbutzim with noisier measures) is shrunk back toward the survey-based measure of the average kibbutz. Using this noise-adjusted survey-based measure, we reestimate the effect of the crisis on age groups' labor market norms and trust in Table A11. Again, our results are not sensitive to this correction.

[7] Where the signal variance is the between-kibbutz variance of the survey-based measure minus the mean within-kibbutz variance of the measure, and noise variance is the within-kibbutz variance of the measure. Following Morris (1983) and other applications (Kane and Staiger, 2008), the EB shrinkage factor is constructed such that the survey-based measure for kibbutzim with noisier measures is shrunk toward the mean measure value.

7 The Effect of the Financial Crisis on Voting Patterns

The previous section showed that the crisis caused kibbutz members to shift toward more capitalistic values and lose trust in their institutions. We now examine whether these changes have translated to a shift in electoral behavior.

We only consider parties that have won seats in parliament, dropping those that did not. As the parties' map constantly changes in Israel, we create a political variable that persists through time. Israel's major political camps make up three categories: left, center, and right. We assign each party that won seats at least once in our period (except for a few outliers) to one of these categories. We base our categorization on Shenhav's (1985, unpublished, updated by the author in unpublished work up to the 2020 elections) political parties' map and the parties' self-proclaimed political affiliation. No party has changed its political orientation during the analysis period. Some parties disappeared from the sample in some elections (dissolved or did not receive enough votes), while new parties emerged. According to our definitions, there weno center parties were1992 elections.

We focus on 1977-2019 without the 1988 elections (as it coincides with the beginning of the crisis it is not clear if it should be classified pre or post). We take only the 155 kibbutzim with a designated voting poll in each election. We perform a Difference-in-Difference analysis with heterogeneous treatment:

$$V_{kt} = \beta \cdot Post_t \cdot Crisis_k + \delta_t + \gamma_k + \theta_{kt} + u_{kt} \tag{2}$$

Where V_{kt} is one of our dependent variables: voting turnout, percentage of votes cast to the left, percentage of votes cast to the center, and percentage of votes cast to the right. δ_t is a set of year dummies, γ_k is a kibbutz fixed effect, and θ_{kt} is an indicator of whether the kibbutz has already reformed. The coefficient of interest is β, which estimates the effect of the interaction between the $Post_t$ variables (which receives 1 after 1987 and 0 otherwise), and $Crisis_k$ (which is the survey-based measure of the kibbutz's economic status at the years 1989-1996).

One recent development in kibbutzim might affect the interpretation of our analysis of voting. Over the last two decades, some kibbutzim have started building within them new neighborhoods dedicated to new non-member residents from outside of the kibbutz (*Harchavot*). As a result, the population who voted within the kibbutz jurisdiction changed. The existence of these *Harchavot* does not threaten our results of attitude measures by surveys, as we can restrict our sample only to people in the kibbutz during the crisis before such neighborhoods were constructed. However, in analyzing voting behavior, we need to distinguish between votes cast by kibbutz members and votes cast by new inhabitants.

To address this issue, we hand-collected neighborhood construction information from 195 kibbutzim in our sample. This is almost the entirety of our sample. In many kibbutzim (96), no

neighborhoods for outside residents were established up to 2019, meaning the composition of their population stayed stable throughout the study period. For the other (99) kibbutzim, we received information about the exact year of populating their new neighborhood. After collecting this information, we ran an identical specification on the sample of 195 kibbutzim for which we collected data on new neighborhoods. We ran a specification omitting from the sample the observations of kibbutzim from the year after they started populating the new neighborhood. In a second specification, we added a control indicator for the existence of such neighborhoods. In both cases, our results remain similar to our original results. This is consistent with the fact that we find a low correlation between establishing neighborhoods and the magnitude of the crisis in each kibbutz. These findings alleviate concerns that the establishment of *Harchavot* drives our results. In other words, the change in voting behavior does not seem to be driven by a change in the population of the kibbutzim; rather, it seems to be driven by the change in the attitudes of the original residents of the kibbutzim.

Table A12 presents descriptive statistics of the electoral voting, stratified by pre- and post-periods and quartiles. The trends emerging from this table are that in the pre-period, the parties in the kibbutzim are perfectly balanced, in line with our earlier results. However, in the post-crisis period, kibbutzim that were hit the hardest voted 4 pp less to the left and 4 pp more to the right than kibbutzim that were not affected by the crisis. Voting to the center post-crisis was similar across all groups.

The formal results are presented in Table 8, Panel A. As seen in kibbutzim, where the crisis hit harder, people moved from the left to the center and the right. In Panels B and C, we divide our samples into Takam kibbutzim (less ideological) and Artzi kibbutzim (more ideological). This reveals that all the voting patterns change comes from the less-ideological kibbutzim. We also examine how the crisis affected kibbutzim in the long and short run. To do this, we divide our sample into two different samples. We keep both samples' 1977-1984 elections as the pre-treatment period. However, in the sample in Panel D, we restrict our post-treatment period to between 1992 and 2003. In Panel E, the post-treatment period is the years 2006-2019. An interesting pattern emerges: In the long and short run, the crisis has induced members to turn from the left to the center and the right. However, we see the crisis affecting voter turnout only in the short run. This is consistent with our findings in the previous section, according to which the crisis moves people to more capitalistic values in both the long and the short run, but it affects their trust levels only in the short run.

What explains the shift rightwards in elections? As discussed in Section 2, the literature raises three possibilities. The first is a change in self-interest. However, this is not plausible in our context: left parties supported policies that favored the kibbutzim before and after the crisis. If anything, the crisis deepened the dependency of the kibbutzim on its political representatives. The second

explanation is that people started voting for the center and right because of their new beliefs in capitalistic ideology. The third possibility is that a loss of trust in kibbutzim leadership caused them to punish the left parties and opt for other parties electorally.

To disentangle the latter two competing explanations, we take all kibbutzim and run the following specification:

$$V_{kt} = \beta \cdot Post_t \cdot Crisis_k + \mu \cdot Post_t \cdot Trust_k + \pi \cdot Post_t \cdot Ideology_k + \delta_t + \gamma_k + \theta_{kt} + u_{kt} \quad (3)$$

This is identical to the previous specification, but we add two additional treatment variables. The first is the Post period (after 1987) interacted with the degree of trust in the kibbutz during 1991-1996 (we have data on trust and labor market attitudes only starting from 1991, and the crisis ended in 1996). The second is the Post period interacted with the support of liberalized markets from 1991 to 1996. The idea is that this specification separates the crisis' effect into three channels: the crisis' effect through ideological change, the effect of the crisis through a change in trust, and the residual effect. However, we note that these treatment variables are endogenous, as previously they were used as outcomes in the regressions. Thus, this approach does not allow the identification of a causal relationship and should be regarded only as suggestive evidence.

To account for the fact that differences in trust levels erode over time while ideology does not, we divide our sample into the short and long term. As shown in Table 9, the effect of the ideology is significant in both periods, though it increases drastically in the long run (Panel B). The sign is negative for the left and positive for the center, implying that change in ideology induced people to vote for the center at the expense of the left. On the other hand, the effect of trust is not significant in the short term. It has a statistically significant effect only on voting for the right in the long term. However, the sign is positive, contrary to our hypothesis: the higher the trust in kibbutz leadership in 1991-1996, the higher the vote to the right.

This result should be qualified for two reasons. First, the crisis' residual effect on the right is negative. As we showed in kibbutzim where the crisis was harder, trust was lower. Thus, it may be that the two effects essentially offset each other. Second, as discussed previously, the long-term trust levels were similar across kibbutzim regardless of the severity of the crisis. Thus, trust affects voting only in the long term, making us question this result. Overall, our findings are more consistent with the explanation that ideology, and not mistrust, leads kibbutzim members to vote rightwards.

Additional evidence supporting our interpretation of the findings comes from Panels B and C in Table 8. Since Artzi kibbutzim were more leftist at the baseline, they remained more to the left even after the crisis. So, even after the shift to the right, the marginal voter in these kibbutzim

remained closest to the leftist parties and continued to vote for them. However, Takam kibbutzim started at the baseline to the right of the Artzi kibbutzim. So, when they moved to the right, the marginal voters became close to voting to the center and the right.

We note that in the questionnaire, between 2001-2005, respondents were asked about the prospect of achieving peace with the Palestinians. This is a major issue on which the three political camps in Israel are divided: the left generally believes peace is achievable. At the same time, the right is highly sceptical, and the center is in between. We examined whether the severity of the crisis is correlated with this answer and found a null result. Thus, the ideological shift that induced members to alter to the right was not in the security issue, but in the economic dimension.

8 The Effect of Debt Settlements

In this section, we study the effect on trust in the leadership of reaching an agreement that aimed to solve the crisis. In 1989 the kibbutzim signed a debt relief agreement. However, this agreement did not succeed in relieving the kibbutzim's debts. So, between 1997 and 2012, the kibbutzim, hit by the crisis, gradually reached an additional (and more effective) settlement with the banks and the government. Most signed the agreement as soon as possible (in 1997). Yet, as shown in Figure 4, the timing of the signing varied across kibbutzim, and some later joined the arrangement. This happened for various reasons, one of them being the severity of the crisis. Indeed, when we regress the timing of the signing on the subjective perception of the economic situation in 1989-1996, we find that the coefficient is 2.78 (standard error: 0.65, t-test: 4.30, observations: 138). This means that if the kibbutz was better off by one point on the Likert scale from 1989 to 1996, it was expected to sign the arrangement almost three years later. Additional balancing tests on the timing of the kibbutz are presented in Table A13.

The implication of the correlation between the timing of signing the debt resettlement agreement and the severity of the crisis is that we cannot estimate the causal effect of signing the arrangement via a simple staggered Difference-in-Difference model. To deal with this limitation, we keep only kibbutzim in the first and second quartiles in the sample. This sample restriction helps because the third and fourth quartiles include fewer kibbutzim who signed the arrangement (because they need it less). Secondly, we hypothesize that since all the kibbutzim in the first two quartiles were hit moderately to severely by the crisis, they all endeavored to sign the agreement quickly. If so, then the variation in signing timing will not result from the severity of the crisis but rather from the ability of the kibbutzim to reach a settlement with banks and the government quickly enough. Indeed, the average signing timing difference between the two groups is merely one year.

To test our second hypothesis, we use the following specification. We limit the sample to

kibbutzim from the first and second quartiles who signed the agreement. The outcome variable in this regression is a dummy variable equal to 1 if the kibbutzim have already signed the arrangement, and 0 otherwise. On the right-hand side, we place a complete set of dummy indicators for years, an indicator for being part of the second quartile, and interaction terms between being part of the second group and the year dummies. Based on this estimated regression, we computed an F-test to examine the probability that all the interaction terms are equal to 0. This F-test determines the statistical significance of the hypothesis that the two groups are on different time trends. The p-value of the test is 0.0928.

This allows us to continue to the casual estimation of signing the arrangement in the first and second quartiles group. So, we conduct the following staggered Difference-in-Difference estimation on the sample of the first and second quartiles that ever signed an agreement, for the full period sample (1991-2018):

$$Q_{ikt} = \beta \cdot Signed_{kt} + \gamma \cdot Signed_{kt} \cdot Crisis_k + \delta_t + \theta_k + X_{ikt} + u_{ikt} \tag{4}$$

Where Q_{ikt} is a question or an index for individual i in kibbutz k at year t, δ_t is survey year fixed effect, θ_k is kibbutz fixed effect, and X_{ikt} is a vector of individual-level controls. The first coefficient of interest is β which measures allows the difference in Q_{ikt} between the pre-signing and post-signing periods. The second important coefficient is γ, which measures the interaction between signing the agreement and the severity of the crisis. The severity of the crisis is continuous in our specification.

As can be seen in Table 10, signing the contract significantly increases the perception of the kibbutz's economic status. However, this effect is heterogeneous: the better off the kibbutz was during the crisis, the weaker this effect. This is a reasonable result, as signing the agreement had more importance to the kibbutz the more severe the crisis. We observe a similar pattern in trust: signing the contract increased trust in the leadership, though to a lesser extent in the stronger kibbutzim. Additionally, signing the settlement did not affect the labor index.

Overall, these results suggest that trust in leadership following economic shocks may be easier to restore than attitudes towards socialism and capitalism. In the context of kibbutzim, while the arrangement that ended the financial crisis could undo the negative effect of the financial crisis on trust, it could not undo the effects of the crisis on labor-market values.

9 Conclusions

Previous literature has suggested that economic shocks induce people to support greater redistribution. By focusing on a socialist setting, we offer important nuances to these findings. Specifically,

we rely on on a severe financial crisis that hit some Israeli kibbutzim more than others, and study the impact of this financial crisis on political behavior, social trust, and economic values.

Contrary to findings in free-market settings, we find that the crisis led to increased support of liberalized labor markets, an effect that persisted two decades after the financial crisis ended. The crisis also led to reduced support for more socialist political parties in national elections.

Our findings suggest that economic shocks may have different effects in capitalist and socialist systems, in both cases leading individuals to question their current system. In capitalist systems, shocks tend to increase support for redistribution, and in socialist settings shocks tend to increase support for liberalized labor markets. These findings suggest that the way people respond to economic events is context-dependent. In particular, it may be that as a consequence of economic misfortunes people do not necessarily turn leftwards, but rather turn against the economic system in which they operate.

We also demonstrate that economic shocks might affect people of different ages differently. The financial crisis in kibbutzim influenced people of different ages to a similar degree in the short term. However, the crisis' effect for older cohorts eroded in the long term, while it persisted for younger cohorts. This sheds light on how political beliefs are formed throughout one's lifetime. In particular, it is consistent with the notion that people shape baseline beliefs at young adulthood. Economic events that happen at a young age may shape this baseline, however, events that occur afterward seem to have a more temporary effect. This has important implications for understanding how economic episodes shape societies. In particular, the insight uncovers a channel by which economic crises may have long-term effects by way of altering the values of the young cohorts.

As in capitalist settings, the crisis reduced trust in leadership, but it was restored shortly after signing a debt restructuring agreement. Thus, trust appears more amendable than social and political attitudes to recovery after a severe crisis, and institutions can regain support by recovering from economic misfortunes.

Our findings also suggest that economic shocks might eventually lead to the collapse of socialist economies. In the kibbutzim's context, the financial crisis led to a shift in attitudes away from socialism and towards liberal labor markets, eventually causing kibbutzim to shift away from their decades-long socialism and income equality. Such forces might have played a role in other socialist settings. Many socialist countries have experienced harsh economic downfalls throughout the years – most prominently the USSR and China – and harsh economic conditions might have undermined the socialist economies by silently changing attitudes toward socialism.

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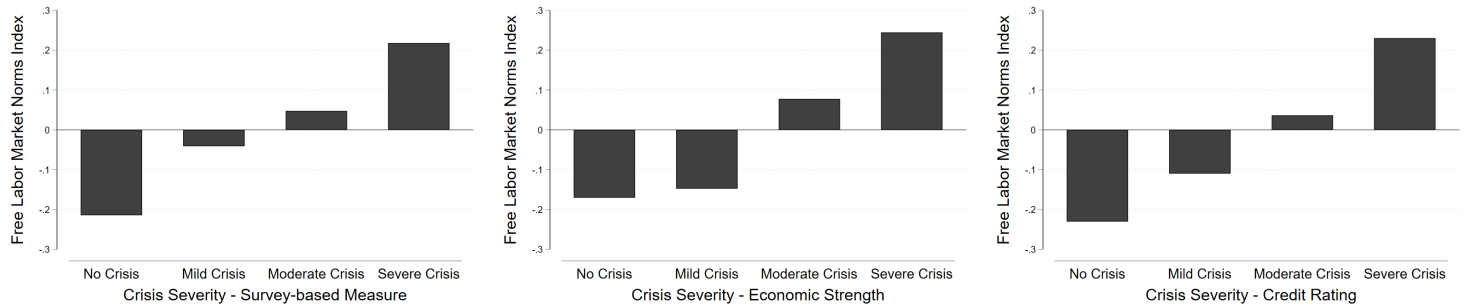
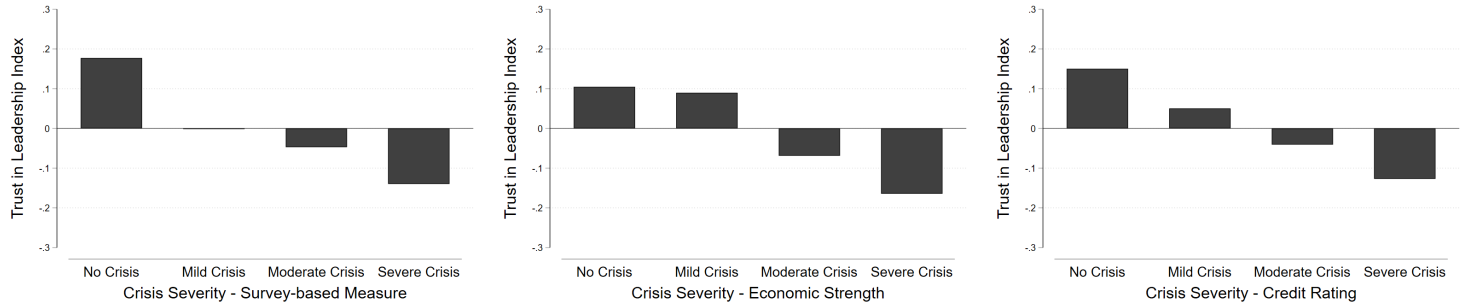
10 Figures

Figure 1: Harder Crisis Increases Support for Free Labor Markets and Decreases Trust in Leadership



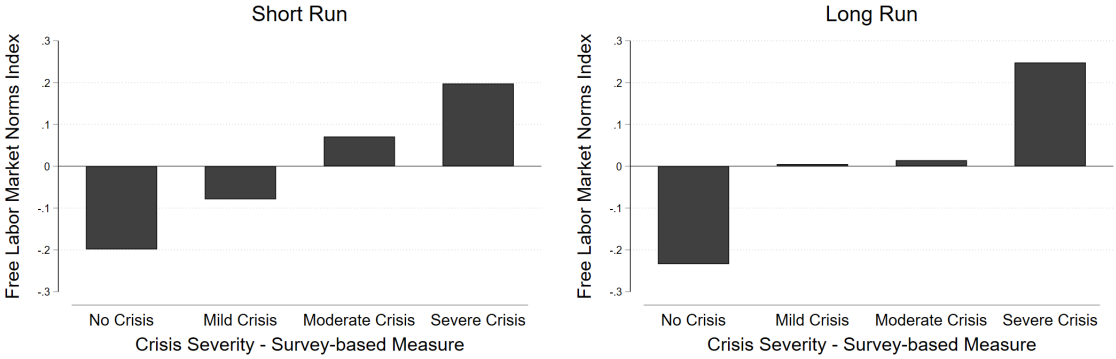
(a) Panel A: Free Labor Market Index



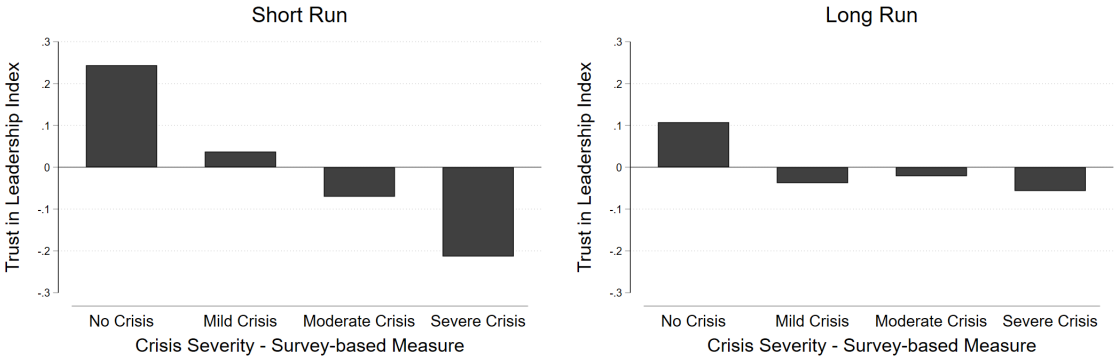
(b) Panel B: Trust in Leadership Index

Notes: Panel A plots the sample mean of the free labor market morms index by quartile of crisis severity, for each of the three measures of crisis severity - the survey-based measure, credit rating and economic strength. Panel B does the same for the trust in leadership index.

Figure 2: Ideology Shifts Persist, But Changes in Trust are Temporary



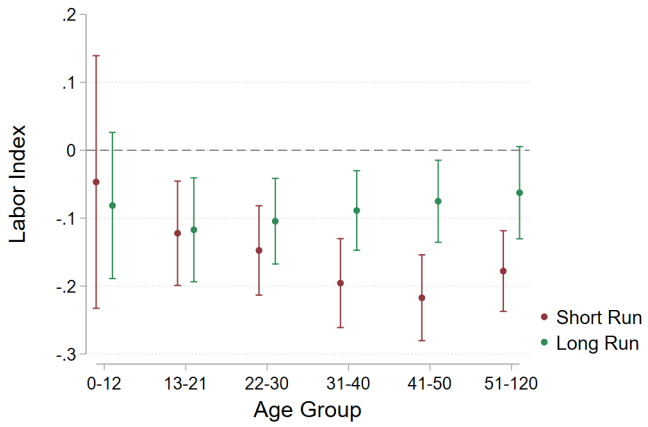
(a) Panel A: Free Labor Market Index



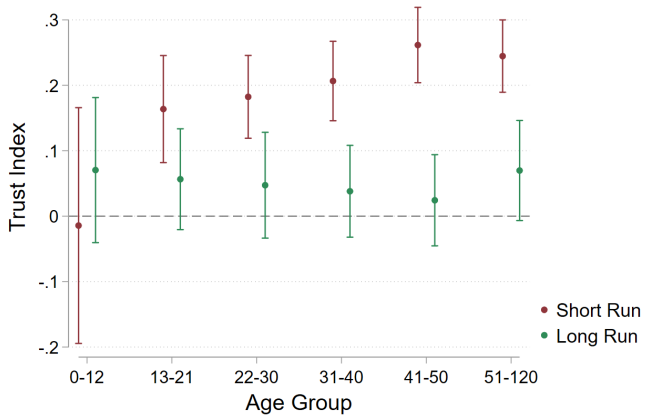
(b) Panel B: Trust in Leadership Index

Notes: Panel A plots the sample mean of the Free Labor Market Norms Index by quartile of the survey-based measure of crisis severity. It does so separately for sample years 1991-2003 (Short Run) and for years 2004-2018 (Long Run). Panel B does the same for the Trust in Leadership Index.

Figure 3: The Effect of the Crisis by Age Group, Short and Long Run



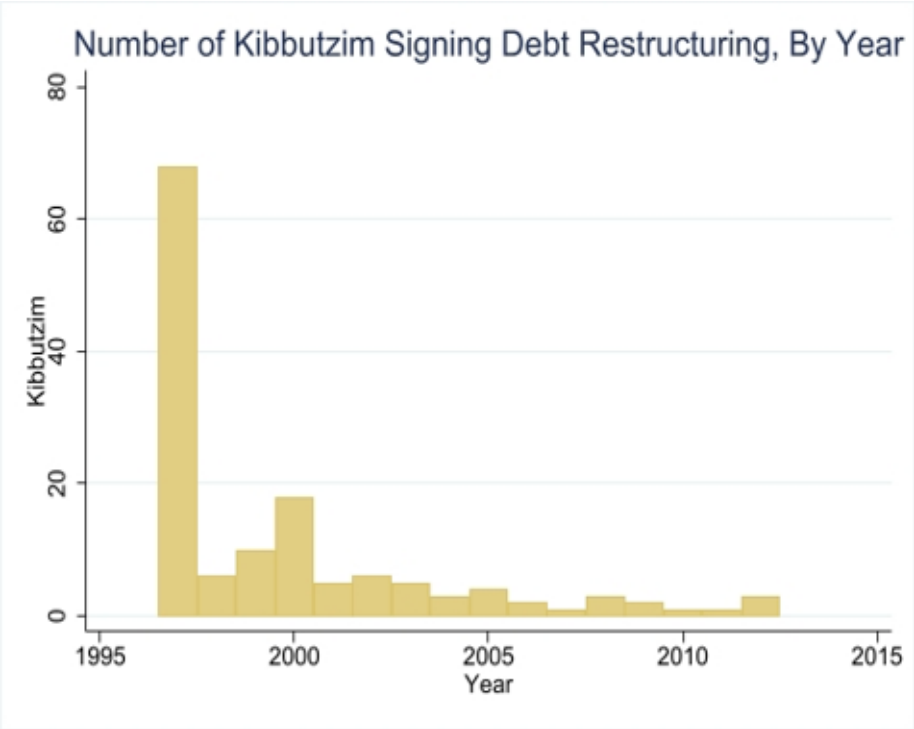
(a) Panel A: Free Labor Market Index



(b) Panel B: Trust in Leadership Index

Notes: This figure plots the coefficients β alongside their 95% confidence interval when the main specification is estimated separately for different age groups, and within each age group separately for the sample years 1991-2003 (Red) and 2004-2018 (Green). Panel A presents the coefficients from regressions in which the Free Labor Market Norms Index is the explained variable, while in Panel B the explained variable is Trust in Leadership Index.

Figure 4: Distribution of Timing of Signing the Debt Agreement



Notes: This is a simple histogram of the number of kibbutzim that signed the debt relief agreement in each year.

11 Tables

Table 1: Descriptive Statistics, Surveys 1989-2018

	Number of Observations	Number of Kibbutzim	Average Age	Proportion Females	Proportion Artzi	Above Secondary Schooling	Crisis Severity Assessment
Panel A: Survey-based Economic Measure							
Severe Crisis	4929	66	50.553	0.556	0.482	0.716	1.812
			(15.165)	(0.497)	(0.500)	(0.451)	(0.230)
Moderate Crisis	4881	58	50.146	0.523	0.392	0.717	2.431
			(15.414)	(0.500)	(0.488)	(0.451)	(0.183)
Mild Crisis	4959	59	50.886	0.497	0.336	0.733	3.071
			(15.351)	(0.500)	(0.472)	(0.443)	(0.216)
No Crisis	5016	44	49.138	0.493	0.395	0.754	3.981
			(15.497)	(0.500)	(0.489)	(0.431)	(0.370)
Panel B: Economic Strength (1994)							
Severe Crisis	1674	27	50.566	0.554	0.343	0.697	1.892
			(15.388)	(0.497)	(0.475)	(0.460)	(0.377)
Moderate Crisis	8651	98	51.004	0.531	0.386	0.720	2.336
			(15.457)	(0.499)	(0.487)	(0.449)	(0.487)
Mild Crisis	4447	41	50.080	0.484	0.403	0.728	3.390
			(15.176)	(0.500)	(0.491)	(0.445)	(0.582)
No Crisis	3632	30	49.341	0.505	0.515	0.750	3.809
			(15.738)	(0.500)	(0.500)	(0.433)	(0.535)
Panel C: Credit Rating (1995)							
Severe Crisis	2255	38	50.071	0.539	0.234	0.693	1.985
			(15.027)	(0.499)	(0.423)	(0.461)	(0.446)
Moderate Crisis	8789	93	51.015	0.528	0.412	0.724	2.452
			(15.516)	(0.499)	(0.492)	(0.447)	(0.641)
Mild Crisis	5462	51	49.655	0.498	0.442	0.729	3.399
			(15.340)	(0.500)	(0.497)	(0.445)	(0.524)
No Crisis	1898	14	50.209	0.491	0.534	0.763	4.052
			(15.864)	(0.500)	(0.499)	(0.425)	(0.382)

Notes: This table presents the descriptive statistics of the kibbutzim, divided into four levels of crisis severity. In Panel A, the level of crisis severity is defined by the survey-based measure of crisis severity in the kibbutz. In Panel B, the level of crisis severity is defined by the economic strength of the kibbutz. In Panel C the level of crisis severity is defined by the credit rating of the kibbutz. In Panel A, number of kibbutzim is based strcitly on observations after 1997 to avoid double-counting.

Table 2: The Correlation Between the Survey-Based Economic Measure of the Kibbutz and the Other Measures of the Crisis' Severity

	Economic Strength	Credit Rating
Survey-based Continuous	0.765	0.764
Survey-based Discrete	0.735	0.727
Economic Strength		0.890

Notes: This table presents the correlation between the average survey based economic and the other crisis severity measures. In the first row we use the continuous survey-based economic measure and in the second row we use its transformation to a discrete variable, divided to four levels of crisis severity. The correlations are weighted based on the sample size of each kibbutz. In the last row we present the correlation between the two expert-based measures.

Table 3: Estimated Correlations Between the Survey-based Economic Measure and Observables of Kibbutzim, 1972 and 1983 censuses

	Female	Married	Num of Children	University Degree	High School	Age	Annual Working Weeks	Weekly Work Hours	Born in Israel	Kibbutz Size	Artzi	Meuchad
Panel A: Census 1972												
Survey-based Economic Measure	-0.00508	0.00917	0.00306	-0.000478	0.00131	0.460	0.0884	0.0776	0.0185*	38.03**	-0.0530	0.0634
	(0.00400)	(0.00634)	(0.0315)	(0.00326)	(0.00277)	(0.438)	(0.125)	(0.253)	(0.0103)	(15.92)	(0.0379)	(0.0481)
Average	0.472	0.427	2.340	0.0409	0.969	26.24	52.49	43.89	0.615	401.1	0.338	0.391
	(0.0572)	(0.0787)	(0.492)	(0.0381)	(0.0413)	(5.351)	(1.909)	(3.810)	(0.136)	(217.1)	(0.474)	0.490
Number of Kibbutzim	205	205	203	205	205	205	204	204	205	204	205	133
Panel B: Census 1983												
Survey-based Economic Measure	0.000665	0.00163	0.0720***	0.00371	-0.00783	0.0836	-0.280	0.313	0.0151*	44.65***	-0.0428	0.0454
	(0.00335)	(0.00545)	(0.0247)	(0.00444)	(0.00816)	(0.0797)	(0.206)	(0.270)	(0.00851)	(15.89)	(0.0376)	(0.0480)
Average	0.489	0.425	2.677	0.0907	0.723	6.325	48.73	43.20	0.686	497.8	0.327	0.403
	(0.0483)	(0.0711)	(0.420)	(0.0591)	(0.100)	(1.008)	(2.599)	(3.190)	(0.109)	(216.7)	(0.47)	0.492
Number of Kibbutzim	205	205	204	205	205	205	205	205	205	205	205	134

Notes: This table presents balancing test results when we regress different characteristics of the kibbutz on the survey-based economic measure. The characteristics of the kibbutz are calculated based on data from the Israeli 1972 census (Panel A) and the Israeli 1983 census (Panel B). We enter the independent variable linearly. Age is defined as a linear variable in Israeli 1972 census and as a group categorical variable in Israeli 1983 census. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table 4: The Estimated Effect of the Scope of the Economic Crisis, by Measures - Discrete Analysis

	Survey-based Measure		**Economic Strength**		**Credit Rating**		**Survey-based Measure on ES and CR Sample**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
Severe Crisis	0.299***	-0.306***	0.287***	-0.230***	0.290***	-0.225***	0.300***	-0.326***
	(0.0532)	(0.0559)	(0.0661)	(0.0739)	(0.0910)	(0.0832)	(0.0564)	(0.0586)
Moderate Crisis	0.157***	-0.224***	0.143**	-0.152**	0.155*	-0.161**	0.158**	-0.225***
	(0.0596)	(0.0539)	(0.0563)	(0.0598)	(0.0838)	(0.0767)	(0.0624)	(0.0577)
Mild Crisis	0.101	-0.164***	0.0285	-0.0129	0.0837	-0.0896	0.113*	-0.179***
	(0.0634)	(0.0584)	(0.0727)	(0.0715)	(0.0886)	(0.0763)	(0.0665)	(0.0614)
Number of Observations	17,194	15,170	16,045	14,152	16,045	14,152	16,045	14,152

Notes: In this table we present the effect of the crisis, estimated using different measures, on the labor and trust indices. In columns 1-2 we enter to the regression the survey-based measure, in columns 3-4 we enter the economic strength measure, and in columns 5-6 we enter the credit rating measure. In columns 7-8 we enter the survey-based measure, but the sample consists only of kibbutzim for which we have credit rating and economic strength. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement (more leftist) and reforming before the survey year. We also include the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table 5: The Estimated Effect of the Scope of the Economic Crisis, by Question

	Support Paying for Overtime	Support full Privatization	Support differential Wages	Free Labor Market Norms Index	Trust Social Leadership	Trust Economic Leadership	Trust in Leadership Index
Panel A: Survey-based Economic Measure (Continuous)							
	-0.298***	-0.148***	-0.245***	-0.142***	0.125***	0.214***	0.145***
	(0.0502)	(0.0352)	(0.0478)	(0.0242)	(0.0276)	(0.0347)	(0.0243)
Panel B: Survey-based Economic Measure (Discrete)							
Severe Crisis	0.636***	0.317***	0.512***	0.299***	-0.248***	-0.470***	-0.306***
	(0.108)	(0.0836)	(0.107)	(0.0532)	(0.0622)	(0.0815)	(0.0559)
Moderate Crisis	0.405***	0.136	0.272**	0.157***	-0.174***	-0.350***	-0.224***
	(0.123)	(0.0906)	(0.115)	(0.0596)	(0.0647)	(0.0772)	(0.0539)
Mild Crisis	0.204	0.108	0.145	0.101	-0.108	-0.282***	-0.164***
	(0.137)	(0.0830)	(0.126)	(0.0634)	(0.0680)	(0.0815)	(0.0584)
Number of Observations	12,221	13,848	13,146	17,194	15,093	15,107	15,170

Notes: We estimate the impact of the crisis, quantified by the survey-based measure, on each one of the different questions we use for our analysis. In Panel A the explanatory variable is entered continuously and linearly. In Panel B we enter it discretely with the omitted group being the 4th group, which consists of kibbutz that were hit the least by the crisis. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We also include and the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table 6: The Estimated Effect of the Crisis on Different Age Groups in Different Periods - Continous Linear Analysis

	Aggregate Effect (1991-2018)		**Short Term (1991-2003)**		**Long Term (2004-2018)**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
0-12	-0.0651	0.0446	-0.0467	-0.0143	-0.0814	0.0704
	(0.0501)	(0.0491)	(0.0949)	(0.0919)	(0.0549)	(0.0566)
	917	890	271	245	646	645
13-21	-0.121***	0.113***	-0.122***	0.164***	-0.117***	0.0565
	(0.0320)	(0.0320)	(0.0391)	(0.0417)	(0.0390)	(0.0393)
	3,194	2,975	1,799	1,584	1,395	1,391
22-30	-0.133***	0.130***	-0.148***	0.182***	-0.104***	0.0473
	(0.0287)	(0.0307)	(0.0336)	(0.0323)	(0.0322)	(0.0413)
	5,286	4,767	3,350	2,832	1,936	1,935
31-40	-0.153***	0.133***	-0.196***	0.207***	-0.0887***	0.0381
	(0.0278)	(0.0274)	(0.0334)	(0.0310)	(0.0299)	(0.0358)
	7,325	6,476	4,235	3,379	3,090	3,097
41-50	-0.159***	0.150***	-0.217***	0.262***	-0.0751**	0.0243
	(0.0274)	(0.0277)	(0.0322)	(0.0294)	(0.0308)	(0.0356)
	7,781	6,853	4,320	3,384	3,461	3,469
51+	-0.142***	0.176***	-0.178***	0.245***	-0.0625*	0.0698*
	(0.0286)	(0.0284)	(0.0303)	(0.0282)	(0.0346)	(0.0390)
	5,991	5,109	3,777	2,899	2,214	2,210

Notes: In this table we estimate the impact of the crisis, quantified by the survey-based measure, on the labor and trust indices, for different cohorts, defined by how old they were during the crisis. In columns 1-2 we include all years in our sample. In columns 3-4 we include only the years 1991-2003, and in columns 5-6 we include only the years 2004-2018. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We also include and the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table 7: Effect of the Average Survey-Based Economic Status of the Kibbutz During the Crisis on Labor Market Opinions and Trust - By Movement and Gender

	Free Labor Market Norms Index	Trust in Leadership Index
Panel A: By Gender		
Males	-0.139***	0.127***
	(0.0276)	(0.0281)
Number of Observations	8,346	7,368
Females	-0.144***	0.167***
	(0.0260)	(0.0263)
Number of Observations	8,848	7,802
Panel B: By Movement		
Takam (Less Ideological)	-0.154***	0.147***
	(0.0318)	(0.0327)
Number of Observations	10,170	8,968
Artzi (More Ideological)	-0.119***	0.138***
	(0.0359)	(0.0344)
Number of Observations	7,024	6,202
Panel C: By Sub-Movement inside Takam		
Ichud (Less Ideological)	-0.139***	0.154***
	(0.0462)	(0.0391)
Number of Observations	5,413	4,723
Meuchad (More Ideological)	-0.177***	0.154***
	(0.0425)	(0.0549)
Number of Observations	4,697	4,193

Notes: This table presents results for when we regress the labor and trust indices on the survey-based economic measure. We ran the regression on responders 13-18 years old and 13-21 years old during the crisis. Panel A depicts the coefficients when we divide the sample by gender. Panel B presents the coefficients when we divide the sample by kibbutz movement. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement (more leftist) and reforming before the survey year , survey year, and the following individual-level controls: gender, year of birth and. All standard errors are clustered at the Kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table 8: Diffrences-in-Differences Estimates of the Effect of the Crisis on Voting Patterns

	Voting Turnout	Percent Votes for Left Parties	Percent Votes for Center Parties	Percent Votes for Right Parties
Panel A: Full Sample				
Survey-based Economic Measure	0.545	1.618**	-0.669	-0.711***
	(0.412)	(0.800)	(0.532)	(0.222)
Number of Observations	1,860	1,860	1,705	1,860
Number of Kibbutzim	155	155	155	155
Panel B: Takam				
Survey-based Economic Measure	0.327	2.080*	-0.881	-0.972***
	(0.565)	(1.196)	(0.771)	(0.314)
Number of Observations	1,152	1,152	1,056	1,152
Number of Kibbutzim	96	96	96	96
Panel C: Artzi				
Survey-based Economic Measure	0.741	0.569	0.0358	-0.259
	(0.567)	(0.628)	(0.388)	(0.295)
Number of Observations	708	708	649	708
Number of Kibbutzim	59	59	59	59
Panel D: Short Term (92-03)				
Survey-based Economic Measure	0.763**	1.225	-0.713	-0.343*
	(0.362)	(0.760)	(0.537)	(0.192)
Number of Observations	1,085	1,085	930	1,085
Number of Kibbutzim	155	155	155	155
Panel E: Long Term (06-19)				
Survey-based Economic Measure	0.362	1.733*	-0.511	-0.960***
	(0.499)	(0.919)	(0.587)	(0.310)
Number of Observations	1,240	1,240	1,240	1,240
Number of Kibbutzim	155	155	155	155

Notes: We estimate the effect of the crisis on voting turnout and voting to left, center and right using simple Difference in Difference specification. The regression includes kibbutz fixed effect, year fixed effect and an interaction term between post-crisis indicator and crisis severity. We report the coefficient of the latter. In panel A, we pool all the sample together. In samples B and C, we divide the sample by kibbutzim movement. In panel D, we restrict the post-treatment period to be 1992-2003. In Panel E, we restrict the post-treatment period to be 2006-2019. In all specifications the pre-treatment period is 1977-1984. Standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table 9: The Mechanism of the Effect of the Crisis on Voting

	Voting Turnout	Percent Votes for Left Parties	Percent Votes for Center Parties	Percent Votes for Right Parties
Panel A: Short Term (1992-2003)				
Crisis·Post	1.143**	1.227	-0.577	-0.457
	(0.467)	(0.828)	(0.531)	(0.301)
Trust·Post	-0.810	-1.261	0.248	0.637
	(0.921)	(1.357)	(0.810)	(0.691)
Ideology·Post	0.897	-2.295*	1.339*	0.468
	(0.796)	(1.343)	(0.790)	(0.716)
Number Of Observations	1,078	1,078	924	1,078
Panel B: Long Term (2006-2019)				
Crisis·Post	0.889	1.732	-0.205	-1.474***
	(0.593)	(1.059)	(0.659)	(0.434)
Trust·Post	-1.083	-2.603	0.787	2.070**
	(1.229)	(1.978)	(1.115)	(0.992)
Ideology·Post	1.275	-5.122***	3.609***	0.567
	(1.121)	(1.581)	(1.041)	(0.736)
Number of Observations	1,232	1,232	1,232	1,232

Notes: The dependent variables are voting turnout, and voting to left, center and right (measured in percentage). On the right hand side, we have a series of year dummies and kibbutzim dummies. We report the coefficient for the interactions between post-1987 and survey-based economic measure, post-1987 and trust and post and ideology. In panel A, we restrict the post-treatment period to be 1992-2003. In Panel B, we restrict the post-treatment period to be 2006-2019. In all specifications the pre-treatment period is 1977-1984. Standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

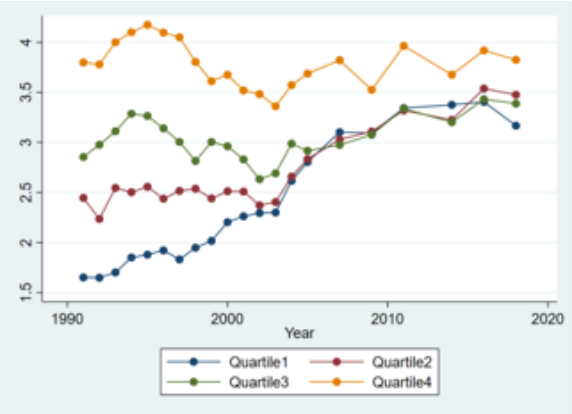
Table 10: Effect of signing the Kibbutzim Arrangement

	Survey-based Economic Status	Free Labor Market Norms Index	Trust in Leadership Index
Signed Arrangement	2.007***	-0.0434	0.796***
	(0.330)	(0.200)	(0.212)
Signed Arrangement·Survey-based Economic Status	-0.814***	-0.00571	-0.310***
	(0.143)	(0.0900)	(0.0926)
Number of Observations	7,624	7,593	6,626
Number of Kibbutzim	115	115	115

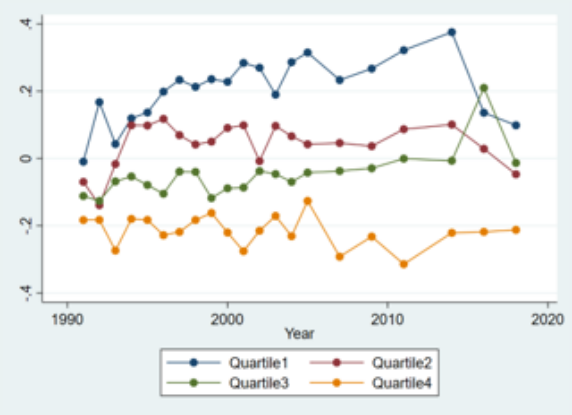
Notes: In all columns we include in the specification a dummy that is equal 1 if the kibbutz has signed the agreement before the surver year, an interaction between this dummy and the survey-based economic measure, kibbutz fixed effect, year fixed effect and two individual-level controls: gender and year of birth. The sample includes only the kibbutzim in the first and second quartiles of the survey-based economic measure.
*** p¡0.01, ** p¡0.05, * p¡0.1

12 Online Appendix: Figures

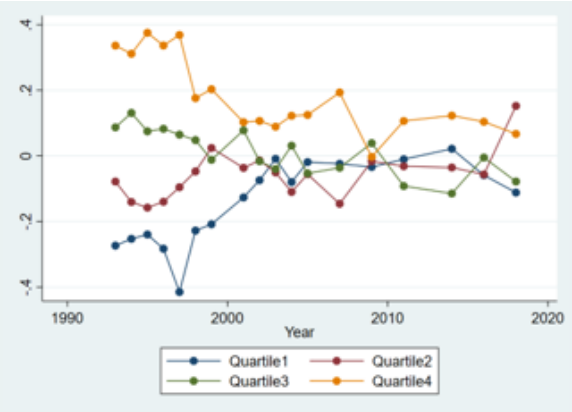
Figure A1: Average Scores Overtime by Survey-Based Measure Quartile



(a) Panel A: Survey-Based Economic Measure



(b) Panel B: Free Labor Market Index



(c) Panel C: Trust in Leadership Index

Notes: We divide the sample into quartiles according to the survey-based measure. In panel A, for each quartile and each year we calculate the average score given to the economic status of the kibbutz, and plot it over time. In panel B, we do the same for the labor index and in panel C, we do the same for trust index.

13 Online Appendix: Tables

Table A1: The Joint Distribution of the Various Economic Status Measures

	Survey-based Measure			
	1	2	3	4
Panel A: Economic Strength				
1	20	6	1	0
2	37	38	22	1
3	0	5	19	17
4	0	1	10	19
Panel B: Credit Rating				
1	24	12	2	0
2	33	33	25	2
3	0	5	24	22
4	0	0	1	13

Notes: This table presents the matrix of the association between the survey-based measure of crisis' severity in the kibbutz and the other crisis severity measures, divided to four levels of crisis severity.

Table A2: The Correlation Between Pre-Crisis Ideology and the Crisis' Severity

	Survey-based Economic Measure (With Group FE)	Survey-based Economic Measure (Without Group FE)	Survey-based Economic Measure	Free Market Labor Index (1991-1996)
More 'Leftist' Ideological Movement (Kibbutz Meuchad) in Migrating Kibbutzim	0.1	0.0516		
	(0.218)	(0.254)		
Year of Transformation to Familial Sleep Arrangement			0.00911	-0.00877**
			(0.00986)	(0.00380)
Number of Kibbutzim	47	44	208	206

Notes: In columns 1-2 we take the sample of kibbutzim in which there was substantial migration in the 50s. We regress the survey-based on economic measure on affiliation with Meuchad (More leftist). In column 1 we divide kibbutzim to groups, according to migration patterns, and include fixed effects for these groups. In column 2 we omit such fixed effects. In column 3 we regress economic measure on timing of move to familial sleeping arrangement. In column 4 the right hand side is identical, but on the left hand side we put the free labor market index, calculated for 1991-1996.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A3: The Correlation of the Survey-based Economic Measure and Pre-Crisis Electoral Voting Patterns

Sample	1977				1981				1984			
	Voting Turnout	Labor Party	Communist Party	Citizen Civil Liberty Party	Voting Turnout	Labor Party	Communist Party	Citizen Civil Liberty Party	Voting Turnout	Labor Party	Communist Party	Citizen Civil Liberty Party
Panel A: Crisis Severity (Continuous)												
Survey-based Economic Status	0.414	-0.329	-0.0437**	0.342**	0.840**	0.0457	-0.00419	0.0225	0.716**	-0.0267	0.0336	0.441
	(0.504)	(1.555)	(0.0213)	(0.147)	(0.414)	(0.809)	(0.0152)	(0.0950)	(0.348)	(0.685)	(0.0577)	(0.504)
Panel B: Crisis Severity (Discrete)												
Severe Crisis	-2.130*	-0.522	0.0802	-0.512	-2.055**	-0.650	0.000	0.0807	-2.089**	-1.392	-0.111	-0.247
	(1.223)	(3.778)	(0.0520)	(0.316)	(1.033)	(2.356)	(0.0360)	(0.234)	(0.892)	(1.645)	(0.136)	(1.113)
Moderate Crisis	-0.635	-1.776	0.0451	-0.158	-0.711	0.245	0.0316	-0.324	-1.808*	-0.855	0.0993	0.0803
	(1.320)	(3.534)	(0.0485)	(0.356)	(1.150)	(2.037)	(0.0424)	(0.218)	(1.048)	(1.480)	(0.159)	(0.991)
Mild Crisis	-2.346**	0.581	-0.00680	0.429	-0.353	0.708	0.0196	0.227	-0.0147	-0.836	-0.0136	-0.349
	(1.169)	(3.458)	(0.0271)	(0.444)	(0.986)	(1.921)	(0.0363)	(0.249)	(0.878)	(1.700)	(0.137)	(1.298)
Average	84.544	76.588	0.074	1.327	84.888	92.564	0.053	1.210	85.923	81.920	0.308	9.170
Number of Observations	156	156	156	156	158	158	158	158	214	214	214	214

Notes: This table presents results when we regress the electoral turnout, and voting percentage for three leftists parties on the survey-based economic status, controlling for affilation with the Artzi movement. In the first four columns we run the regression for the 1977 national elections for the Parliament. In columns 5-8 we do the same for the elections of 1981, and in columns 9-12 we run the regression for the 1984 national elections.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A4: The Estimated Effect of the Scope of the Economic Crisis, by Measures - Only Born in the Kibbutz

	Survey-based Measure		**Economic Strength**		**Credit Rating**		**Survey-based Measure on ES and CR Sample**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
Severe Crisis	0.303***	-0.274***	0.285***	-0.196***	0.289***	-0.203**	0.296***	-0.284***
	(0.0516)	(0.0587)	(0.0681)	(0.0736)	(0.0902)	(0.0906)	(0.0548)	(0.0616)
Moderate Crisis	0.130**	-0.183***	0.143***	-0.125**	0.169**	-0.150*	0.124**	-0.187***
	(0.0583)	(0.0563)	(0.0541)	(0.0592)	(0.0788)	(0.0821)	(0.0611)	(0.0604)
Mild Crisis	0.103	-0.148**	0.0590	0.00609	0.104	-0.0854	0.112	-0.159**
	(0.0644)	(0.0601)	(0.0702)	(0.0701)	(0.0842)	(0.0828)	(0.0678)	(0.0633)
Number of Observations	11,748	10,238	10,973	9,564	10,973	9,564	10,973	9,564

Notes: In this table we present the effect of the crisis, estimated using different measures, on the labor and trust indices. In columns 1-2 we enter to the regression the survey-based measure, in column 3-4 we enter the economic strength measure, and in columns 5-6 we enter the credit rating measure. In columns 7-8 we enter the survey-based measure, but we restrict the sample to kibbutzim that we have for them data on the economic strength and credit rating measures. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We add the following individual-level controls: gender, year of birth and survey year. We include only individuals that were born in the kibbutz or established it. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A5: The Estimated Effect of the Scope of the Economic Crisis, by Different Age Groups and Measures

	Survey-based Measure		**Economic Strength**		**Credit Rating**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
	0.190*	-0.0743	0.114	0.0116	0.0926	0.130
	(0.107)	(0.112)	(0.183)	(0.149)	(0.184)	(0.175)
	-0.0255	-0.0718	-0.0723	0.104	-0.0321	0.0544
0-12	(0.114)	(0.121)	(0.0970)	(0.106)	(0.122)	(0.134)
	0.0106	0.00784	-0.149	0.283**	-0.0365	0.118
	(0.108)	(0.105)	(0.122)	(0.112)	(0.129)	(0.134)
	917	890	859	835	859	835
	0.281***	-0.202***	0.209**	-0.136	0.196	-0.0574
	(0.0662)	(0.0710)	(0.0910)	(0.0973)	(0.126)	(0.111)
	0.0628	-0.180**	0.0988	-0.0971	0.0631	-0.0395
13-21	(0.0755)	(0.0726)	(0.0729)	(0.0788)	(0.110)	(0.100)
	0.0605	-0.166**	-0.0126	0.0223	0.0119	0.00979
	(0.0776)	(0.0782)	(0.0904)	(0.0921)	(0.116)	(0.102)
	3,194	2,975	2,965	2,763	2,965	2,763
	0.275***	-0.288***	0.273***	-0.193**	0.237**	-0.159
	(0.0611)	(0.0670)	(0.0874)	(0.0933)	(0.115)	(0.120)
	0.147**	-0.181**	0.126*	-0.154**	0.117	-0.119
22-30	(0.0653)	(0.0706)	(0.0661)	(0.0748)	(0.102)	(0.108)
	0.106	-0.164**	0.000630	-0.0748	0.0472	-0.0750
	(0.0757)	(0.0707)	(0.0898)	(0.0893)	(0.109)	(0.112)
	5,286	4,767	4,831	4,348	4,831	4,348
	0.307***	-0.292***	0.337***	-0.133	0.358***	-0.177*
	(0.0599)	(0.0661)	(0.0825)	(0.0906)	(0.0978)	(0.0913)
	0.184***	-0.196***	0.134*	-0.154***	0.179*	-0.188**
31-40	(0.0633)	(0.0588)	(0.0685)	(0.0543)	(0.0930)	(0.0758)
	0.116	-0.124**	-0.0280	-0.0253	0.0944	-0.122
	(0.0739)	(0.0584)	(0.0844)	(0.0714)	(0.0967)	(0.0778)
	7,325	6,476	6,673	5,888	6,673	5,888
	0.329***	-0.306***	0.349***	-0.221**	0.368***	-0.228**
	(0.0621)	(0.0638)	(0.0697)	(0.0968)	(0.0918)	(0.0927)
	0.162**	-0.233***	0.173***	-0.182***	0.191**	-0.185**
41-50	(0.0689)	(0.0579)	(0.0620)	(0.0654)	(0.0839)	(0.0788)
	0.122*	-0.133**	0.0667	-0.0136	0.121	-0.0864
	(0.0702)	(0.0652)	(0.0744)	(0.0727)	(0.0868)	(0.0763)
	7,781	6,853	7,298	6,435	7,298	6,435
	0.310***	-0.376***	0.263***	-0.368***	0.248**	-0.383***
	(0.0707)	(0.0666)	(0.0812)	(0.0922)	(0.105)	(0.105)
	0.180**	-0.271***	0.167***	-0.163**	0.168*	-0.194**
51+	(0.0772)	(0.0701)	(0.0629)	(0.0788)	(0.0884)	(0.0958)
	0.119	-0.214***	0.0970	0.0182	0.103	-0.102
	(0.0730)	(0.0766)	(0.0812)	(0.0902)	(0.0952)	(0.0967)
	5,991	5,109	5,757	4,922	5,757	4,922

Notes: In this table we estimate the effect of the crisis on the labor and trust indices for different age groups, determined by how old members were during the crisis. In columns 1-2 we quantify the crisis using the survey-based measure, in columns 3-4 using the economic strength measure and in columns 5-6 using the credit rating measure. In all specifications we enter the explanatory variables discretely, with the omitted group being the 4th group, which consists of kibbutz that were hit the least by the crisis. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We add the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A6: Different Definitions of Labor Index

	All Questions (1992-2018)	Q21 + Q38 (1994-2007)	Q25 + Q38 (1996-2014)	Q21 + Q25 (1996-2007)	All Questions (1996-2007)
Panel A: Survey-based Economic Status (Continuous)	-0.142***	-0.177***	-0.131***	-0.154***	-0.154***
	(0.0242)	(0.0320)	(0.0257)	(0.0284)	(0.0290)
Panel B: Crisis Severity (Discrete)					
Severe Crisis	0.299***	0.378***	0.279***	0.335***	0.335***
	(0.0532)	(0.0693)	(0.0564)	(0.0598)	(0.0608)
Moderate Crisis	0.157***	0.226***	0.134**	0.192***	0.182**
	(0.0596)	(0.0776)	(0.0626)	(0.0713)	(0.0709)
Mild Crisis	0.101	0.119	0.0809	0.104	0.103
	(0.0634)	(0.0864)	(0.0637)	(0.0733)	(0.0751)
Number of Observations					

Notes: This table presents results for when we regress differently defined labor market indices on the survey-based economic measure of each kibbutz. Columns 1 shows the regular index we use. However in columns 2-5 we use different definitions. We take each time 2 or 3 questions and define the index only on the years all questions were asked. In panel A we enter the explanatory variable continuously, and in panel B we enter it discretely. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We add the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A7: The Estimated Effect of the Scope of the Economic Crisis, by Different Age Groups and Different Periods of the Survey-Based Measures

	1989-1995		**1989-1994**	
	Labor Index	Trust Index	Labor Index	Trust Index
Panel A: Survey-based Economic Status (Continuous)				
	-0.125***	0.123***	-0.118***	0.118***
	(0.0242)	(0.0249)	(0.0242)	(0.0247)
Panel B: Survey-based Economic Status (Discrete)				
Severe Crisis	0.274***	-0.254***	0.276***	-0.261***
	(0.0517)	(0.0589)	(0.0504)	(0.0586)
Moderate Crisis	0.135**	-0.176***	0.142**	-0.179***
	(0.0571)	(0.0551)	(0.0577)	(0.0538)
Mild Crisis	0.0529	-0.119**	0.0607	-0.137**
	(0.0631)	(0.0597)	(0.0623)	(0.0591)
Number of Observations	16,253	14,235	16,304	14,371

Notes: We regress labor and trust indices on the survey-based measure, entering the variable both linearly (Panel A) and discretely (Panel B). However, this time we compute the measure differently: we compute it based on the years 1989-1995 in columns 1-2 and based on the years 1989-1994 in colums 3-4. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We add the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A8: The Estimated Effect of the Scope of the Economic Crisis, Different Robustness Checks

	Kibbutz-Level Controls		**Post-Crisis Only**		**Without Small Kibbutzim**		**Without 4th Quartile**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
Panel A: Survey-based Economic Status (Continuous)								
	-0.125***	0.140***	-0.123***	0.101***	-0.125***	0.103***	-0.156***	0.0985**
	(0.0257)	(0.0258)	(0.0261)	(0.0280)	(0.0272)	(0.0287)	(0.0357)	(0.0379)
Panel B: Survey-based Economic Status (Discrete)								
Severe Crisis	0.257***	-0.294***	0.268***	-0.212***	0.277***	-0.234***	0.204***	-0.138**
	(0.0558)	(0.0579)	(0.0566)	(0.0630)	(0.0587)	(0.0648)	(0.0474)	(0.0529)
Moderate Crisis	0.131**	-0.208***	0.120*	-0.149**	0.132**	-0.138**	0.0574	-0.0542
	(0.0610)	(0.0523)	(0.0636)	(0.0606)	(0.0664)	(0.0628)	(0.0552)	(0.0513)
Mild Crisis	0.0905	-0.166***	0.105	-0.130**	0.108	-0.127*		
	(0.0665)	(0.0607)	(0.0657)	(0.0645)	(0.0695)	(0.0662)		
Number of Observations	16,764	14,792	13,079	12,056	12,148	11,193	12,746	11,172

Notes: This table presents several robustness checks. In colums 1-2 we include in the regression kibbutz-level controls. In columns 3-4 we take only observation starting from the year 1997. In columns 5-6 we omit kibbutzim that the survey-based measure was calculated for them based on less than 10 observations. In columns 7-8 we omit from our analysis the 4th quartile. In panel A we estimate continuous and linear explanatory variable, and in panel B we estimate the coefficients when the variable is entered discretely. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year. We add the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A9: The Estimated Effect of the Scope of the Economic Crisis - No Control On Reforms

	Economic Strength Until 1996		**Credit Rating Until 1996**		**Survey-Based Full Sample**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
Severe Crisis	0.564***	-0.626***	0.526***	-0.605***	0.463***	-0.340***
	(0.0862)	(0.0851)	(0.134)	(0.103)	(0.0701)	(0.0590)
Moderate Crisis	0.243***	-0.432***	0.225*	-0.469***	0.273***	-0.248***
	(0.0758)	(0.0592)	(0.122)	(0.0840)	(0.0784)	(0.0566)
Mild Crisis	0.209**	-0.191***	0.189	-0.234***	0.169**	-0.179***
	(0.0878)	(0.0715)	(0.123)	(0.0843)	(0.0836)	(0.0614)
Number of Observations	3,730	2,831	3,730	2,831	17,194	15,170

This table presents several checks when we omit the control for reform. In columns 1-4 we take the sample only until the year 1996, and we omit the kibbutzim that reformed before that year. We regress on this sample The labor and the trust indices on the economic strength (1-2) and credit rating (3-4) measures, entered discretely into the specification. In columns 5-6 we take the full sample, but simply drop the control for reform. We enter to the specification the survey-based measure discretely. In all columns we include in the specification the affiliation with the Artzi movement control. We add the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A10: The Effect of Crisis on Free Market Attitudes and Trust in Leadership By Age Group, Only Uneducated

	Ages 22-30		**Ages 31-40**		**Ages 41-50**		**Ages 51+**	
	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index	Labor Index	Trust Index
Survey-based Economic Status	-0.151***	0.136***	-0.168***	0.149***	-0.173***	0.186***	-0.158***	0.178***
	(0.0308)	(0.0336)	(0.0287)	(0.0317)	(0.0286)	(0.0330)	(0.0314)	(0.0328)
Number of Observations	2,724	2,588	3,912	3,680	4,599	4,299	3,992	3,693

Notes: We estimate the impact of the crisis, quantified by the survey-based measure, on the labor index and trust index. However, we restrict the sample only to individuals that do not have academic education. In columns 1-2 the sample includes people that were 22-30 years old in the crisis. In colums 3-4 the ages are 31-40, in columns 5-6, 51-50, and finally in column 7-8 we take individuals 50+ years all. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year . We also include and the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A11: The Effect of Crisis on Free Market Attitudes and Trust in Leadership By Age Group, Only Uneducated

Age Group		Labor Index	Trust Index
	Survey-based Economic Status (Continuous)	-0.0463	0.0664*
		(0.0409)	(0.0375)
	Survey-based Economic Status (Discrete)	-0.409*	0.121
0-12		(0.218)	(0.166)
		0.274	-0.298
		(0.246)	(0.308)
		0.0720	-0.330***
		(0.169)	(0.119)
	Number of Observations	917	890
	Survey-based Economic Status (Continuous)	-0.115***	0.117***
		(0.0284)	(0.0252)
	Survey-based Economic Status (Discrete)	0.749***	-0.691***
13-21		(0.175)	(0.166)
		0.592***	-0.287
		(0.225)	(0.181)
		0.162	-0.300**
		(0.139)	(0.130)
	Number of Observations	3,194	2,975
	Survey-based Economic Status (Continuous)	-0.115***	0.110***
		(0.0265)	(0.0256)
	Survey-based Economic Status (Discrete)	-0.325**	0.265*
22-30		(0.129)	(0.151)
		0.497**	-0.308
		(0.209)	(0.226)
		0.263**	-0.245*
		(0.124)	(0.145)
	Number of Observations	5,286	4,764
	Survey-based Economic Status (Continuous)	-0.126***	0.112***
		(0.0238)	(0.0205)
	Survey-based Economic Status (Discrete)	0.0623	-0.274**
31-40		(0.138)	(0.109)
		0.620***	-0.356**
		(0.161)	(0.171)
		0.359**	-0.252**
		(0.139)	(0.108)
	Number of Observations	7,325	6,468

Table A11: Continued

	Survey-based Economic Status (Continuous)	-0.142***	0.117***
		(0.0202)	(0.0226)
	Survey-based Economic Status (Discrete)	0.324***	-0.305**
41-50		(0.109)	(0.130)
		0.827***	-0.269*
		(0.116)	(0.157)
		0.396***	-0.236*
		(0.108)	(0.127)
	Number of Observations	7,781	6,842
	Survey-based Economic Status (Continuous)	-0.130***	0.137***
		(0.0190)	(0.0238)
	Survey-based Economic Status (Discrete)	0.600***	1.072***
50+		(0.0994)	(0.173)
		0.721***	-0.399**
		(0.128)	(0.202)
		0.460***	-0.274*
		(0.0782)	(0.141)
	Number of Observations	6,483	5,530
	Survey-based Economic Status (Continuous)	-0.126***	0.121***
		(0.0189)	(0.0192)
	Survey-based Economic Status (Discrete)	0.133	-0.170
13+		(0.105)	(0.114)
		0.633***	-0.362**
		(0.127)	(0.160)
		0.347***	-0.282**
		(0.103)	(0.118)
	Number of Observations	17,194	15,154

Notes: This table presents results for when we regress the labor and trust indices on the Bayesian survey-based economic measure. We ran the regression on eight groups of observations: All responders and 0-12, 13-21 , 22-30, 31-40, 41-50, 51+ and 13+ years old during the years of the crisis. In all columns we include in the specification the following kibbutz-level controls: affiliation with the Artzi movement and reforming before the survey year , and the following individual-level controls: gender, year of birth and survey year. All standard errors are clustered at the kibbutz level.
*** p¡0.01, ** p¡0.05, * p¡0.1

Table A12: Descriptive Statistics of Electoral Voting, By Crisis Severity and Period

Crisis Severity Quartile	Period	Voting Turnout	Left	Center	Right
1 (Severe Crisis)	Pre	84.794	89.576	4.321	3.374
		135	135	135	135
	Post	73.386	69.543	20.513	7.063
		405	405	360	405
2	Pre	85.675	90.399	4.409	2.466
		138	138	138	138
	Post	74.463	70.792	19.934	6.305
		414	414	368	414
3	Pre	85.547	90.396	3.937	2.740
		102	102	102	102
	Post	75.008	70.772	19.898	6.605
		306	306	272	306
4 (No Crisis)	Pre	86.574	89.565	5.546	2.223
		90	90	90	90
	Post	76.245	73.622	20.084	4.106
		270	270	240	270

We divide all kibbutzim into quartiles according to their survey-based economic status. For each quartile we measure the mean of voting turnout, and support of left, center and right parties at two periods. The first period is pre-crisis period, at the years 1977-1984. The second period is post-crisis period, at the years 1992-2019.

Table A13: Balance Test for Years 1989-1996 - Kibbutz Signed a Debt Settlement

	Average Age	Proportion of Females	Proportion Artzi	Proportion Above Secondary Schooling
Year of signing	-0.128*	-0.00116	-0.0107	0.00367
	-0.0662	-0.00216	-0.0107	-0.00274
Signed in 1997	0.63	-0.00764	-0.085	-0.0247
	-0.579	-0.017	-0.0961	-0.0189
Number of Observations	3,256	3,256	3,256	3,256

Notes: This Balancing table presents results for when we regress average kibbutz characteristics determined at 1989-1996 on signing a debt settlement by the kibbutz. First, results of regressing kibbutz characteristics on the year the kibbutz signed a debt settlement are presented. Second, results of regressing kibbutz characteristics on whether the kibbutz signed a settlement during 1997 or not are presented.
*** p¡0.01, ** p¡0.05, * p¡0.1