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Working Paper No. 952 June 2023 ISSN 1473-0278

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The limits of hegemony: U.S. banks and Chilean firms in the Cold War*

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Governments in hegemonic states use economic sanctions to induce changes in other countries. What happens to international business networks when these sanctions are in place? We use new historical firm-level data to document the destruction of financial relations between U.S. banks and Chilean firms after socialist Salvador Allende took office in 1970. Business reports and stock prices suggest that firms were mostly unaffected by having fewer links with U.S. banks. Substitution of financial relations towards domestic banks appears to be the key mechanism explaining these findings.

Keywords: firms, banks, Cold War, United States, Salvador Allende.

*This version: February 2023. First version: April 2022. We would like to thank seminar participants at the Economic History of Developing Regions Virtual Seminar, Skema Business School, Toulouse School of Economics, University of Chile (Center for Applied Economics and MIPP), and UC Davis for comments and suggestions. González is grateful to the Fondecyt (Project 1210239) for financial support. Prem acknowledges IAST funding from the French National Research Agency (ANR) under the grant ANR-17-EURE-0010 (Investissements d'Avenir program). Jorge Araya, Felipe Coy, Sofia Flechtner, Pedro Held, and Xiomara Kuwae provided outstanding research assistance.

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1 Introduction

Hegemonic states use economic sanctions and covert actions to limit international relations and induce changes in other countries. Travel bans, embargoes, lending cuts, and asset freezes have been commonly used historically.[1] Despite their ubiquity and extensive research in the social sciences since at least the 1960s (Galtung, 1967; Doxey, 1971), the effectiveness of these policies remains highly debated among scholars and policymakers (Frankel, 1982; Heifetz, 2015). One reason might be that we know very little about the behavior of important non-state agents (e.g. private banks and firms) under sanctions (Aidt et al., 2021). Knowledge about non-state actors is crucial in an increasingly interconnected worldwide economy, as it can illuminate why government sanctions programs could (or not) work in practice. We provide new quantitative evidence on bilateral business relations between U.S. banks and Chilean firms after a covert action program was put in place by President Richard Nixon in 1970 (U.S. Senate, 1975).

"Make the economy scream [to] prevent Allende from coming to power" was Nixon's direct order after socialist Salvador Allende was democratically elected president of Chile in 1970 (Kornbluh, 2003; Harmer, 2011). The rise to power of a left-wing coalition that included Marxist parties caused significant political concern in the U.S. due to the potential impact on other Latin American countries. The fear of growing Soviet influence in the Global South led to well-documented political efforts to prevent Allende from taking office and to the creation of a recently declassified Covert Action Program that aimed to create political and economic instability in Chile (U.S. Senate, 1975; Gustafson, 2007). The economic impact of U.S. foreign interventions during the Cold War has been documented by previous research (Dube et al., 2011; Berger et al., 2013). Yet changes in international business networks under sanctions from hegemonic states have been relatively more difficult to document empirically (Aidt et al., 2021).

We empirically study the evolution of international business relations between U.S. banks and Chilean firms before and after the democratic election of Salvador Allende. To do so, we collected and digitized annual business reports with financial information on 68 of the most important firms in the Chilean economy during the period 1967-1973. A key feature of our data is that it reveals the existence of relationships between these firms and banks across the globe. Chilean

[1] Examples include the U.S. embargo on Great Britain in early 19th century, existing sanctions on Cuba and Iran, and the most recent ones imposed by the European Union and other countries in response to the Russian invasion of Ukraine. Morgan et al. (2009, 2014) documents more than 1400 economic sanctions worldwide since 1945. Economic sanctions are different from political but non-coercive interventions such as conditional loans from multilateral banks.

firms benefited from international banks in a variety of ways from financial advice to underwriting services, all of which can contribute to ease financial constraints (Frydman and Hilt, 2017). We classified all banks that appeared in these reports, finding that 53 firms had links with U.S. banks and other international banks in Europe and elsewhere in the late 1960s. We then study if these links changed differentially after the arrival of socialism, their consequences for affected firms, and the mechanisms through which these impacts might appear in the economy.

For the empirical strategy, the 41 firms with links to U.S. banks in 1967-1969 are the treated group after the arrival of Salvador Allende. The remaining 12 firms were connected to non-U.S. international banks and thus constitute the control group. Having a control group allows us to account for changes that affected all firms in the country such as credit risks, inflation, and political instability, among others. Beyond firm-bank relations, we also observe firm-level assets, debt, sales, board members, and stock market prices that we collected from contemporary newspapers. Crucially for our research design, we show that both groups of firms were similar in terms of observable characteristics before the arrival of the left-wing coalition and were evolving similarly in the late 1960s. These empirical facts motivated us to implement a difference-in-differences econometric strategy. However, as financial links are not randomly allocated, we offer comparisons within industry over time and controlling for the time-varying impact of observables, to adjust for unobservable shocks after Allende's rise to power.

We begin by documenting the destruction of financial relations between Chilean firms and U.S. banks after Allende took office in 1970. Difference-in-differences estimates reveal one fewer link with U.S. banks among the treatment group. The destruction of one international link is large considering that the average firm had fewer than three international links. In contrast, we do not observe any systematic changes in links with other (non-U.S.) international banks. We then discuss potential drivers of this destruction. Using the nationalization of firms as a shock to cut links with the U.S. economy, we fail to find in-country or Allende directed cause. These results, together with suggestive evidence from recently declassified CIA documents (U.S. Senate, 1975), push us to tentatively conclude that the link destruction is likely to be grounded on increasing costs or barriers derived from the U.S. covert action program.

Did the destruction of financial links with U.S. banks lead to economic losses for firms? To answer this question, we use data from balance sheets, income statements, and the stock market. We find little evidence of negative impacts on firms. Participation in international markets—as revealed by exporting and importing activities—debt, assets, sales, and stock returns all evolved

similarly across treated and control firms. Importantly, these results are robust to recent methods that conservatively adjust difference-in-differences estimates by relaxing the key identification assumption (Rambachan and Roth, 2021; Roth, 2022), different specification decisions, estimation techniques, and inference methods (Crump et al., 2009; Sant'Anna and Zhao, 2020). Moreover, we confirm the lack of a negative impact by analyzing data from the country's manufacturing census. These data are available at the industry-by-region level, and we identified industry-region pairs linked to U.S. banks in the late 1960s. Employment and value-added measures again evolved similarly across affected and unaffected economic areas.

Why are firms unaffected by the destruction of financial relationships with U.S. banks? We hypothesize that Salvador Allende's policies were key. One of his leading policies was the nationalization of firms and banks. In the late 1960s, there was a single state-owned bank while by 1971, more than half of domestic banks were controlled by the state. The left-wing coalition's economic program notes that the idea was to channel credit from national banks to firms to fuel the economy. We classified domestic banks into private and public and, using the same difference-in-differences strategy, document that banks with fewer links to U.S. banks were also the ones creating financial links with public banks during Allende's term. Moreover, a re-analysis of economic consequences using heterogeneous impacts reveals that firms without links to (soon to be) public banks in the late 1960s were in fact harmed by the destruction of U.S. links. Overall, this evidence suggests that public banks were key in counteracting the negative impact of broken relationships between U.S. banks and Chilean firms.

This paper relates to an empirical literature documenting the economic impacts of foreign interventions. The majority of the previous work has studied the economic and financial impacts of U.S. interventions during the Cold War. Authors have documented that U.S. led coups changed the stock market value of multinational companies (Dube et al., 2011), CIA interventions affected international trade patterns (Berger et al., 2013), and estimated the impact of U.S. military bombing during the Vietnam War (Miguel and Roland, 2011; Kocher et al., 2011; Dell and Querubin, 2018). A recent survey of the economics literature on foreign interventions emphasizes the potential role played by non-state actors (Aidt et al., 2021) but the empirical evidence of this is scarce. Our main contribution is to change the focus from the state to private agents and study bilateral relations between U.S. banks and Chilean firms when the covert action program was in place.

We also contribute to a large literature aimed at understanding the effectiveness of foreign policy on targeted countries. The majority of this work focuses on economic sanctions, which are

designed to create and then use economic damage to change foreign behavior (Baldwin, 1985; Kirshner, 1997). Previous research has emphasized that this damage does not necessarily lead to policy change and can even improve the relative position of the incumbent elite (Willett and Jalalighajar, 1983; Kaempfer and Lowenberg, 1992; Morgan and Schwebach, 1997; Peeva, 2022). In fact, many scholars are pessimistic about the effectiveness of sanctions due to the negative consequences for civilians (Hufbauer et al., 1985; Pape, 1997; Peksen, 2009) and the weak impact on targeted countries that are disproportionally non-democratic (Galtung, 1967; Lektzian and Souva, 2007; Escribà-Folch and Wright, 2010). Others are more optimistic as sanctions have been shown to depress the economy and create political instability (Cortright, 1999; Mack and Khan, 2000; Bolks and Al-Sowayel, 2000; Jing et al., 2003; Marinov, 2005; Allen, 2008; Neuenkirch and Neumeier, 2015; Afesorgbor and Mahadevan, 2016; Afesorgbor, 2019). Policy change can be more likely to take place when sanctions are targeted to influence groups such as firms or members of the elite (Kaempfer and Lowenberg, 1988; Tostensen and Bull, 2002; Kaempfer et al., 2004; Drezner, 2011). Research evaluating these "smart sanctions" is smaller but growing, and the most recent work on firms points towards sanctions' relative effectiveness (Haidar, 2017; Ahn and Ludema, 2020; Crozet and Hinz, 2020; Draca et al., 2023)

We contribute to the existing literature in four ways. First, we study the break of hundreds of international financial relationships between U.S. banks and Chilean firms, destructions which were not necessarily part of an official package of economic sanctions but arose in the context of a covert action program. As such, we broaden the scope of the literature to include international relations arising from non-state actors such as private banks and firms. Second, we focus on a democratic Latin American country during the Cold War, significantly expanding current research which disproportionally studies non-democracies, specifically the recent sanctions on Iran and Russia. In our case, the destruction of links comes from a democratic move towards socialism, which could lead to potential spread of socialism in Latin America. Third, we continue the recent trend in the use of microeconomic evidence by employing firm-level data and a clearly defined control group to study the impact of international relations on economic outcomes. Fourth, we emphasize the importance of local responses—i.e. domestic banks in our case—in counteracting the negative consequences associated with the destruction of international relations.

Our focus on banks and non-financial firms speaks to the literature studying financial contagion through business networks, the value of links with investment banks, and substitution of financial relationships. Authors have emphasized how internal and external banking crises can have direct and indirect impacts on firms, workers, and the local economy more generally (Peek and Rosen-

gren, 2000; Fernando et al., 2012; Chodorow-Reich, 2014; Frydman et al., 2015; Huber, 2018). There are also a few articles documenting how bank liquidity shocks in foreign countries affect domestic firms through domestic banks (Schnabl, 2012). We contribute to this literature by analyzing the creation and destruction of financial relationships after the implementation of the covert action program. The role of domestic banks in counteracting the destruction of links is related to previous research documenting credit compensation after liquidity shocks among large firms with strong business and political ties (Khwaja and Mian, 2008).

2 Historical background

2.1 The 1970 election and Salvador Allende's government

Nearly two years after the inauguration of Richard Nixon in January 1969, the U.S. witnessed socialism and Soviet influence spreading in Latin America. In November 1970, socialist Salvador Allende defeated candidates from conservative political parties and became president of Chile with the support of a left-wing coalition. His election was perceived by the U.S. as critical given the context of the Cold War, and President Nixon was clearly concerned about this and related political events in the region. In this section, we provide a historical discussion of the arrival of Salvador Allende's government, the policies they implemented, and the U.S. foreign policies that were triggered as a consequence of his election.

Salvador Allende was democratically elected president of Chile in September 1970 with little more than 36 percent of the vote. Given that the winner of the election had obtained less than 50 percent of the vote, the law required that Congress needed to confirm the winner. The two months that followed were politically turbulent. Although members of the Congress had always confirmed the candidate who won the most votes, this time there were special political interests permeating the otherwise straightforward procedure. The U.S. government was particularly keen in preventing Salvador Allende from taking office and lobbied for members of the Congress to vote against his confirmation. Moreover, recently declassified documents also reveal that the CIA was involved in creating conditions for a coup (Kornbluh, 2003).[2] A critical actor was the Commander-in-Chief of the Army René Schneider, a constitutionalist who stood firmly against a political role of the

[2]The U.S. was an important political actor during this period and had a key role in the 1964 election when Allende had a real chance of becoming president. U.S. Senate (1975) confirmed that the CIA covertly spent more than 3 million dollars to support the moderate candidate Eduardo Frei in order to prevent Allende from winning the election.

military (Harmer, 2011, p.57-60). Schneider was killed in October and the political support for a constitutional path and Allende's confirmation as president increased as a consequence. Sixty days after winning the election, Salvador Allende was confirmed by the Congress and took office on November 4th.

The Allende government was characterized by the nationalization of private banks and firms in strategic industries, a sharp increase in land expropriations, price controls, and the implementation of social policies aimed at the low-income population (Larrain and Meller, 1991). As a consequence of the rapid increase in government spending, the economy experienced a boom during Allende's first year in office; according to official statistics GDP growth increased from 4 to 8% from 1970 to 1971, and unemployment decreased from 6 to 4%. Yet macroeconomic disequilibria signaled an overheated economy. The public sector deficit and the quantity of money increased markedly, leading to a three-digit inflation and the spread of black markets from 1972 onwards. GDP growth was negative in both 1972 and 1973, and real wages decreased by almost 40% in 1973.

2.2 U.S. policy towards Chile

Less than a week after socialist Salvador Allende became president, Richard Nixon decided to implement a policy of "covert hostility" (Qureshi, 2009, p.75). The National Security Decision Memorandum 93 summarizes this strategy under the subject of "Policy Towards Chile." This document reveals that "The President has decided that (1) the public posture of the United States will be correct but cool, to avoid giving the Allende government a basis on which to rally domestic and international support for consolidation of the regime; but that (2) the United States will seek to maximize pressures on the Allende government to prevent its consolidation and limit its ability to implement policies contrary to U.S. and hemisphere interests."

A memorandum from National Security advisor Henry Kissinger to Nixon mentions the five principal elements of the policy (Figure A.1): (1) Political action to divide and weaken the Allende coalition; (2) Maintaining and enlarging contacts in the Chilean military; (3) Providing support to non-Marxist opposition political groups and parties; (4) Assisting certain periodicals and using other media outlets in Chile which can speak out against the Allende Government; and (5) Using selected media outlets [...] to play up Allende's subversion of the democratic process and involvement by Cuba and the Soviet Union in Chile. The reasons for this hostility were grounded in two arguments. First, the U.S. was concerned about the impact of a democratic election of a socialist

president on other Latin American countries which could potentially also fall under the influence of the Soviet Union. Second, the U.S. was concerned about the economic threat that socialism imposed on U.S. assets through, for example, unfair expropriations. This strategy was to either legally overthrow Allende or to create conditions for a military coup. All of this had to be done covertly due to a fear of exacerbating hemisphere hostility and to maintain the U.S. reputation of a protector of democracy worldwide (Harmer, 2011, p.58). Overall, the U.S. provided monetary resources to support opposition political parties, private sector organizations, and anti-Allende propaganda in opposition media (U.S. Senate, 1975).

A key event occurred in July 1971. Salvador Allende decided to nationalize the remaining American ownership in copper companies. This action constituted a threat to U.S. assets and therefore enabled Richard Nixon to use the Hickenlooper Amendment to justify the suspension of assistance to Chile (Sigmund, 1974; Qureshi, 2009). As a consequence of the copper nationalization and related policies, U.S. banks reduced the loans given to Chilean firms, and the U.S. Congress enacted the Gonzalez Amendment instructing to vote against additional loans from multilateral lending institutions to countries expropriating U.S. assets (Qureshi, 2009, p.89). The unfolding of these events has been previously covered by Sigmund (1974, p.326) who argues that "it is hard to distinguish between what could have been seen by many to legitimate reasons for not making loans and credits available (serious doubts about Chile's likelihood or capacity for repayment) and illegitimate ones (economic warfare in defense of private corporations or in order to promote a military coup)." Nevertheless, Chile secured loans from other countries including Australia, Canada, the U.K. and the U.S.S.R. among others (Sigmund, 1974, p.336).

3 Data construction

3.1 Business reports, 1967-1973

Our main data source is business reports submitted by firms to a regulatory agency in charge of regulating ownership and the financial sector. This agency is a crucial state entity and its role can be compared to the one currently played by the Securities and Exchange Commission in the U.S. today. Listed firms and companies with a large number of shareholders were legally required to submit reports with detailed financial information about their business activities.[3] We digitized

[3]Similar business reports from the 1980s and 1990s have been previously used to understand the consequences of privatization, democratic transitions, and the formation of political connections in Chile (González and Prem, 2018,

reports from 68 firms operating between 1967 and 1973, before and after the arrival of Salvador Allende.

Firms in our data were dominant players in key sectors of the economy (Alaluf, 1971; Larrain and Meller, 1991). For example, one utility firm generated 64% of the total annual energy production for third party consumption in Chile in 1969. Similarly, a maritime transportation company represented 47% of the total maritime transportation capacity in the same year. In the manufacturing industry, 56% of the total wood pulp production was produced by one of the firms and the three fisheries represented 35% of total fish meal production. Wood pulp and fish flour were among the most important exports in Chile at the time, representing 23% and 14% respectively of the total value of non-mining goods exports in 1969. Moreover, 40% of firms were affiliated with the largest business groups in 1970.[4] Therefore, any shock experienced by firms in our data could have propagated to other firms and the rest of the economy through production networks and within business group dynamics (Acemoglu et al., 2012; Huneeus et al., 2021).

Figure 1 presents the three key report parts we use in the empirical analysis. This example is from a manufacturing firm operating in the agricultural sector in 1967. Panel (a) shows the front page, which gives the firm name, the business year, all of the people appointed to the board of directors, the names of managers, the list of existing bank relationships, and the name of the accounting firm in charge of auditing the report, in this case Deloitte, Plender, Griffiths and Company. Unfortunately, the reports do not provide details on the nature of the bank relationships. International banks could be offering advice, underwriting services, or be providing loans, all of which can contribute to relaxing financial constraints (Frydman and Hilt, 2017).[5]

Panel (b) in the same figure shows the balance sheet, which gives information about assets and debt, and their corresponding subcategories. Finally, panel (c) shows the income statement with information on total sales. At the time, the required information was unfortunately not standardized, meaning that some firms reported certain subcategories and others did not. Therefore, we use or construct coarse categories (e.g. assets) to make the information from the reports comparable across firms. We also transform all monetary variables to 1967 Chilean Escudos using the price

2020; Aldunate et al., 2020; González et al., 2020).

[4]Several studies have underscored the historical importance of business groups in the Chilean economy. Lagos (1962) reports that 22.4% of all Chilean limited liability companies—representing 70.6% of total book equity—were either controlled by or affiliated with the 11 largest business groups in Chile.

[5]Investment bankers can extract value when sitting on the board of a firm or increase value through monitoring. Most existing evidence points towards positive benefits. See, for example, DeLong (1991) and Ramirez (1995).

index from the Central Bank.

After digitizing all business reports for the 68 firms and the period 1967-1973, we are able to observe the following time-varying variables: assets, fixed assets, sales, and debt. With these, we construct a measure of the firm's reliance on external credit (i.e. leverage, debt over assets), sales over assets, and returns over assets. In addition, the reports also give information on exporting and importing activities. In each report, managers wrote a statement on the amount of sales to foreign customers.[6] The vast majority also say in which countries where their products were sold. Based on these statements we constructed three variables measuring participation in international markets. The first two variables describe exports: (i) an indicator for firms exporting their products, and (ii) the export destination in three categories: the U.S., Latin America, and the rest of the world. The third variable is related to imports. Specifically if a firm was engaging in importing activities by looking at a specific account in the balance sheet which declares the amount paid in customs. We construct an indicator for firms with importing activities, although unfortunately data on the source country is missing.

We also collected data measuring firm-bank financial relationships in the period 1967-1973 from the same business reports. Panel (a) in Figure 1 provides an example of this information. The first page gives a list of all banks with a financial relationship with the firm. In this particular example, the firm declared to have had relationships with seven banks in 1967. Three of the seven banks were domestic (i.e. Banco de Chile), two were international non-U.S. banks (i.e. Banco Panamericano), and two were U.S. banks, (First National City Bank and Bank of America). We classified the banks into these three categories following the work of Behrens (1985). Originally, the author classified all banks operating in Chile in 1969 into domestic or international banks. Given the objective of our analysis, we take one step further and classified all international banks we found in the reports as based in the U.S., Europe, or elsewhere. Table A.1 lists all banks mentioned in the reports and their main country of operation. Between 1967 and 1973, there is a total of 20 national banks, seven U.S. banks, and eight non-U.S. international banks.

We complement our firm-level panel dataset with stock market data. We use stock prices to study the response of financial investors to the arrival of a socialist government during the Cold War (Girardi, 2020). Expected negative impacts on firms with U.S. relationships should drive investors to bet on firms without these links and thus presumably decrease the stock market valuation of

[6]For example, the business report of a manufacturing firm in the metallurgic industry states that the firm "manufactures and distributes [their] products in Argentina, Uruguay, Peru, Bolivia, and Ecuador."

the former (Fisman, 2001). Stock market prices at the firm-level can be found in the newspaper *El Mercurio*, the largest and most important media outlet at the time. Historical editions of this newspaper are publicly available in the microfilms archives of the National Library. In terms of data collection, we digitized daily prices for a five-month period around the 1970 presidential election. We also digitized weekly prices between January 1st 1970 and December 30th 1973. The latter period includes the 1970 presidential election, all of Salvador Allende's term, and the 1973 military coup. Overall, we found stock price data for a total of 46 firms in our panel dataset.

3.2 Summary statistics in 1969

Table 1 presents summary statistics for all firms (columns 1-4) and sub-samples of subsequent econometric interest (columns 5-8) in 1967-69, the years before Allende took office.[7] Panel (a) shows the average and standard deviation (in parenthesis) of all firm-level variables we extracted from the business reports. We consider the variables in rows 1-3 to be related to firm performance, rows 4-6 to firms' reliance on external debt, rows 7-8 to participation in international markets, and the latter three rows are the industries of operations. Table A.3 gives a comparison of standard balance sheet variables between the firms in our sample and two other groups (i) listed firms in Chile in the period 1990-2017, and (ii) S&P 500 firms in 2022. When compared to these groups, the firms in our sample are relatively smaller, more reliant on fixed assets, and have higher leverage, but exhibit similar performance as measured by sales over assets.

Column 1 in Table 1 presents the characteristics of all 68 firms. On average, two-thirds of all assets were fixed, and annual sales were equivalent to 67% of assets. Given our interest on firm-bank relationships and bank credit, note that the average leverage was 35%, which means that more than one-third of assets were externally financed. In fact, we observe that more than a quarter of firms had a leverage larger than 50%, that is the majority of their operations were financed with external funds. Moreover, firms in our sample had annual financial expenses (e.g. interests) equivalent to 3% of their total debt. We mentioned that these were large firms, which is confirmed by the fact that many participated in the international market: almost half were importers and one-third sold their products abroad. In terms of industries, more than half operated in the secondary sector (manufacturing), and remaining firms were roughly equally split in primary – extraction and production of raw materials (e.g. forestry, mining) – and tertiary sectors (services).

[7]We present additional statistics such as percentiles, and the minimum and maximum values for all variables in Table A.2. Similarly, Figure A.2 presents the full distribution of all continuous variables used throughout the analysis.

Panel (b) in Table 1 describes the firm-level relationships with different types of banks. The first two rows in column 1 show that the majority of firms interacted with banks: 85% with national banks and 57% with international banks. Column 2 also shows that 41 of the 68 firms in the data had at least one business link to a U.S. bank. The remaining 27 firms (in column 3) had substantially fewer financial relationships with the international banking sector as only one-third had links with non-U.S. international banks. Moreover, the average firm had business relationships with 4.3 national and 1.2 international banks and thus the share of international banks was close to 20%. Overall, the summary statistics in this panel reveal substantial differences across firms in terms of their bank relationships before Allende came to power in November 1970. Below, we propose to exploit this heterogeneity econometrically.

4 Empirical Strategy

4.1 Firms with links to international banks

Given that firms with and without links to U.S. banks differ, the main empirical challenge is to find a set of firms that can serve as control group. After carefully reading all of the relevant annual reports, we found that 15 of the 27 firms without U.S. links were small domestic companies relatively unconnected to the world economy. The majority of these firms were involved in recreational businesses or real estate in narrow geographic localities within the country. As such, these firms are unlikely to constitute a valid counterfactual as they are significantly different from firms linked to U.S. banks. This motivated us to drop them from the analysis and focus only on firms with links to some international bank (U.S. or non-U.S.) in the period 1967-1969.

Column 5 in Table 1 offers a description of the 53 firms that had at least one link to an international bank before Salvador Allende rose to power. Columns 6-8 describe differences across the two groups of interest. Overall, once we remove the set of small domestic firms, we find that the 41 firms with and the 12 firms without links to U.S. banks are similar. As before, panel A examines differences in firm-characteristics in 1967-69. Panel B shows differences in firm-bank relationships, and the statistical differences using permutation tests to account for the small number of firms in the control group. As expected, removing small domestic companies creates balance in all characteristics across the two sets of firms. Most notably, they are now similar in terms of size, debt, leverage, and exporting activities. Both firms have relationships with a similar number of international banks (1.56 vs. 1.24 per year), most have at least one relationship with a national

bank (86 vs. 90%) and they also have similar shares of international banks (22 vs 26%).

Despite the similarities in observable variables across firms with and without links to U.S. banks, it is important to note that financial relations between firms and banks are not randomly allocated. Thus, it is plausible that firms with links to U.S. banks differ in terms of relevant characteristics that are unobservable to us. In what follows, we implement a variety of empirical strategies to show the extent to which these variables could be confounding our analysis.

4.2 Estimating equations

We compare outcomes across firms with links to international banks in a difference-in-differences framework during the years 1967 and 1973, i.e. four years before Salvador Allende rose to power and the three years of his mandate. The set of firms with existing financial links to U.S. banks before Allende's period constitute the treatment group. Firms with links to international banks but without links to U.S. banks represent the control group. Based on the previously discussed empirical comparison across these groups, and a battery of econometric checks we present below, we argue that the latter group constitutes a valid counterfactual for the former set of firms.

The empirical analysis begins with a semi-parametric estimation of differences across firms. In particular, we use ordinary least squares to estimate the following regression equation:

$$Y_{ijt} = \sum_{k=1967}^{1973} \beta_k \left(\text{U.S. bank}_i \times D_k\right) + \phi_i + \phi_{jt} + \epsilon_{ijt} \tag{1}$$

where Y_{ijt} is an outcome of firm i, which operates in industry j and we observe in year t. The indicator "U.S. bank$_i$" identifies treated firms and takes the value of one for those with financial links to at least one U.S. bank during the years 1967-1969 and zero otherwise. Note that an important economic variable which changed after Salvador Allende's rise to power was credit risk as perceived by private banks. In fact, private bankers described that credits were gradually suspended in response to the worsening economic situation (Sigmund, 1974, p.332). Fortunately, the existence of Chilean firms without U.S. links, but with links to international non-U.S. banks, allows us to econometrically account for the commonly perceived risk changes.

The indicators D_k in equation (1) take the value of one for each year and zero otherwise, e.g. when $k = 1971$ then D_{1971} equals one for the year 1971 and zero for the remaining years. To avoid multicollinearity, we omit D_{1969} from the set of year indicators. The fixed effects ϕ_i capture

observed and unobserved heterogeneity across firms that is fixed over time, and ϕ_{jt} captures observed and unobserved heterogeneity which changes over time across clusters of firms in the same industry.[8] Robust standard errors ϵ_{ijt} are clustered at the firm-level to allow for arbitrary correlation within firms over time. The coefficients of interest are β_{1971}, β_{1972}, and β_{1973} and measure the differential outcomes of firms linked to U.S. banks during the period of interest. As discuss below, the coefficients β_{1967} and β_{1968} serve as checks for the validity of the empirical approach.

In addition to the previous econometric specification, we always present results from a relatively more parametric regression equation. The motivation is to add some structure suggested by the data and thus increase the precision of our estimates. We do this by estimating:

$$Y_{ijt} = \beta\,(\text{U.S. bank}_i \times \text{Allende}_t) + \phi_i + \phi_{jt} + \epsilon_{ijt} \tag{2}$$

where everything is defined as in equation (1) but we replaced the set of year indicators by the single indicator "Allende$_t$" which takes the value of one for the period 1971-1973 and zero otherwise. The coefficient of interest is now β and measures the *average* differential outcomes of firms previously linked to U.S. banks during Allende's period. The added structure comes from imposing that $\beta_k = 0\ \forall k \in [1967, 1970]$ which as shown below is supported by the data.

The absence of randomly allocated financial links between firms and banks push us to evaluate potential threats to our econometric strategy. Our main concern is unobservable variables that differ across treated and control firms and affect outcomes differently from 1971 onwards. To the extent that these unobservables vary by industry or are correlated with observables, fixed effects ϕ_{jt} and control variables help us to assess them as potential threats. As controls, we include variables X_i measured before Allende' term and interacted by the indicator "Allende$_t$." In particular, X_i includes an indicator for exporters, another indicator for importers, and firm size as measured by assets in balance sheets. Other exercises include checking for the estimates $\widehat{\beta}_{1967}$ and $\widehat{\beta}_{1968}$—which should be close to zero if the two sets of firms are indeed comparable—and similar exercises which formally test for the existence of differential trends across firms. Regardless, our empirical strategy does not allow us to estimate the country-level impact of Salvador Allende's rise to power on the Chilean economy because we lack a counterfactual for the country as a whole. Equations (1) and (2) allow us to simply estimate differences in outcomes across firms differentially exposed to the U.S. bank sector. It is important to note that all of these firms could have been negatively affected

[8]The double-way fixed effect ϕ_{jt} is useful to control for any industry-specific policies which affected all firms. For example, the impact of agricultural policies during the Allende government are captured by this fixed effect.

by the U.S. covert action program, after all the economy worsened significantly in 1972 and 1973.

Finally, in terms of the outcomes we examine, and the order of the empirical analysis, we proceed in four steps. First, we begin with an estimation of changes in relationships between firms and different types of international banks. Given our interest in the U.S. economy during Nixon's term, we look at firm-level relationships with U.S. banks and non-U.S. international banks. We use number of relationships with banks as the main dependent variable, but results are robust to different definitions such as the share of U.S. banks. Second, we explore the impact of these evolving relationships on real firm-level outcomes such as assets, debt, and sales, and also on stock returns over different time horizons. Third, we explore the robustness of these results to changes in specification decisions and estimation strategies. And finally, we engage in an exploration of mechanisms which can potentially explain our findings.

5 Results

5.1 Destruction of firm-bank relations

We begin by estimating the differential evolution of firm relations with international banks. Figure 2 presents estimates of equation (1). These figures show important changes in financial links over this time period. In particular, panel A shows that the number of links with international banks decreased markedly after the arrival of Salvador Allende. By 1972, firms with previous U.S. links had 1.5 fewer relationships with international banks. The average firm had links with approximately six banks before 1970, which means a decrease of 25% in the total number of bank relationships and almost a 100% decrease in relationships with international banks. Panels B and C in the same figure make clear that the destruction of international relationships comes from U.S. banks as changes with non-U.S. banks are smaller and not statistically different from zero.

Three additional results are worth mentioning regarding non-parametric estimates of changes in bank relationships. First, estimated coefficients $\widehat{\beta}_{1967}$ and $\widehat{\beta}_{1968}$ are economically small and not different from zero. In fact, the p-values associated to the F-test for the joint significance of both pre-Allende coefficients are 0.15 in panel A, 0.16 in panel B, and 0.18 in panel C. The conjunction of p-values and small point estimates provide empirical support for the existence of parallel trends between treated and control firms before Allende and constitute suggestive evidence in favor of the parallel trends assumption. The second result is related to a natural question that arises from

this figure: Are these changes in bank relations permanent or transitory? To answer this question, we extended our analysis until 1980, right before the onset of a large economic crisis. Figure A.3 presents these results and shows that the pre-Allende levels returned by 1978-1979. Third, there is some attrition in our firm-bank data but Table A.4 shows that the process generating the missing data is similar across treated and control firms.

Table 2 presents the relatively more parametric estimates derived from equation (2). Overall, this table confirms the evidence from Figure 2. This is, there is a large and statistically significant decrease in the number of relationships with international banks coming mostly from the destruction of links with U.S. banks. Panel A presents a simplified version of equation (1) imposing that $\beta_k = 0 \ \forall k \in [1967, 1970]$ and panel B estimates of equation (2). In addition, we present results from three specifications to be sure about the robustness of results: (i) using only firm and year fixed effects (columns 1, 4, 7), (ii) equation (2) (columns 2, 5, 8), and (iii) an extended version with predetermined controls interacted with an indicator for Allende's term (columns 3, 6, 9). The first three columns confirm the decrease in the number of relationships with international banks, while columns 7-9 show that most of this effect comes from fewer relations with U.S. banks. The estimated coefficients are remarkably similar in each year of Allende's government and are robust to the flexible inclusion of predetermined controls. In all, using our preferred specification, we document a 36% decrease in relationships with international banks ($-0.96/2.64 = 0.36$, column 2) and a 72% decrease in relationships with U.S. banks ($-0.85/1.18 = 0.72$, column 8)

5.2 Participation in international markets

Given the economic importance of the firms in our data, their relative large size, and their active participation in the world economy, it is natural to ask if the disruption of bank relationships affected their participation in international markets. To answer this question, we study within-firm changes in exporting and importing activities after Salvador Allende's rise to power. In addition, we also look at the direction of trade flows by analyzing changes in the probability of exporting to the U.S., Latin America, and the rest of the world.[9] The impact of fewer relations with U.S. banks depends on the ability of firms to substitute these by links with other institutions. With imperfect substitution, firms might need to reduce their operations and trade flows could be affected.

Table 3 presents estimates of equation (2) using indicators for exporting and importing activ-

[9]Column 1 in Table 3 reveals that 35% of firms exported their products in 1969. Columns 3-6 clarify that we observe the destination of exports for almost but not all firms (29 percentage points of the 35%, or 83%).

ities as dependent variables. Panel A represents the baseline specification and panel B adds predetermined covariates interacted with time indicators as control variables. Column 1 shows that firms with fewer links to U.S. banks decrease their exporting patterns by 8-14 percentage points from a base of 35%, but the difference is imprecisely estimated and it is not statistically different from zero. Importing activities remained stable after 1970 among the treated firms when compared to the same change in the control group. We present the corresponding non-parametric difference-in-differences in Figure A.4. Firms decrease their exports to other Latin American countries, *not* the U.S. or the rest of the world, although again these estimates are not different from zero.

In all, we observe little robust changes in the participation of affected firms in international markets, at least as measured by their exporting and importing activities revealed in business reports. These results suggest that U.S. firms behaved similarly as buyers or sellers when interacting with Chilean firms with and without links to U.S. banks during the Allende years. Of course, international transactions are only one potential margin of adjustment and firms could have suffered from evolving financial relations in other parts of their operations. We now explore these.

5.3 Firm-level performance

Did the destruction of relations with U.S. banks affect firm performance? To answer this question, we begin by studying firm-level outcomes in the annual reports. Additionally, we follow González and Prem (2020) to collect weekly stock-prices from newspapers available at the National Library, and construct abnormal returns for each firm (Campbell et al., 1997). Finally, we combine our firm-level data with a different historical industry-level dataset. Imperfect information, a politicized context, and credit constraints likely introduce market frictions and thus imperfect substitution of financial relations. As a consequence, firms could have experienced lower performance. Although evidence is scarce, recent research has found the opposite: more bank relations is associated with lower firm value (Jadiyappa et al., 2020), with monitoring costs as possible mechanism. Therefore, the impact of fewer bank links on performance is ultimately an empirical question.

Figure 4 presents non-parametric results using firm-level outcomes as dependent variables. Overall, we observe little evidence of negative impacts on firm performance. Importantly, we also observe parallel trends across treated and control firms, with p-values for the joint significance of pre-Allende coefficients being 0.25, 0.57, 0.46, 0.62, 0.16, and 0.19 in panels A-F respectively. Moreover, most coefficients point towards positive impacts as we observe higher sales and more assets after 1970. Table 4 presents the corresponding parametric results for Allende's term, i.e.

the average of coefficients in the 1971-1973 period. Panel A presents result without predetermined controls interacted by Allende's term and panel B adds those to check for the robustness of results. Again, we observe little evidence of lower performance among affected firms. Only columns 6 and 7 suggest negative impacts, but the coefficients are fairly small in terms of economic magnitude.

To further understand potential economic impacts on the economy, we also combined our firm-level data with annual information from the country's manufacturing census.[10] Unfortunately, the micro-data is missing and the information is only available at the industry-by-region level. We observe a total of nine (two-digit) industries and 10 regions every year between 1968 and 1973. In this case, we geo-coded the location of operations of all firms in our data and define the treatment group as an indicator that takes the value one if at least one firm in a given industry-region had a relationship with a U.S. bank between 1967 and 1969. Given the more speculative nature of this analysis, we present descriptive evidence and leave econometric results for the appendix. Figure 5 again shows few differences between affected and control areas of the country. Table A.5 documents fairly small negative impacts on employment, value added, and payroll, although none of these estimates is statistically different from zero and appear to be explained by pre-trend differences across treatment and control locations (Figure A.5).

5.4 Additional results and robustness exercises

Additional results and robustness exercises provide further support for the negative impact of Allende's government on links to U.S. banks and the (lack of) consequences for firms. We begin with evidence from recent statistical tests and alternative assumptions regarding parallel trends across treatment and control firms. Figure 2 showed that all pre-Allende coefficients are not statistically different from zero, which suggests both sets of firms were evolving similarly before the period of interest. This evidence is also supported by a statistical test of differential linear pre-trends. Column 1 in Table 5 focuses on the pre-Allende period and presents the coefficient associated to a potentially different linear trend among firms with links to the U.S. Reassuringly, we cannot reject that firms with and without links had similar trends. We can also take a more conservative stand and allow for deviations from the parallel trends assumption. In this case, we follow the recent literature and allow linear and non-linear deviations to check for the sensitivity of each one of our

[10]The National Statistics Bureau collects annual information about establishments in the manufacturing industry which have more than 50 employees. The census are comparable across years and each firm is assigned to an industry using the International Standard Industrial Classification of All Economic Activities (ISIC).

results (Rambachan and Roth, 2021; Roth, 2022). Results are presented in Figure A.6 and Table A.6 and suggest that even under conservative scenarios we find a sizable destruction of U.S. links.

The destruction of U.S. relationships and the lack of negative impacts on firms are robust to several specifications decisions we made. First, those results are not driven by any specific firm in the data. Figures A.7 and A.8 show that our estimates are remarkably stable when we check their sensitivity to excluding single firms from the corresponding estimation.[11] Second, we reach similar conclusions regarding U.S. bank links if we replace the number of firm-bank relationships by (i) the number of U.S. relationships over all relationships (i.e. share), or (ii) an indicator that takes the value of one for the existence of a relationship with at least one U.S. bank (i.e. any). The upper three panels in Figure A.10 show the results for the former, and the bottom three panels for the latter; Table A.7 presents the corresponding regression coefficients. Third, columns 2 and 3 in Table 5 show that results are similar if we measure the links to U.S. banks in the year 1967 or 1969 instead of doing it during the period 1967-1969. And fourth, the use of panel data can produce inconsistent standard errors due to serially correlated outcomes (Bertrand et al., 2004). Reassuringly, column 4 in Table 5 shows that results are again similar when we collapse the seven time years of data (1967-1973) into one before and one after periods.

The following columns show that all results are robust to the use of alternative estimation methods which use more conservative assumptions in difference-in-differences models. Columns 5 through 8 in Table 5 present these exercises which further support our results. In columns 5 and 6, we follow Crump et al. (2009) and estimate each firm's probability of having a U.S. bank relationship based on their observables in the 1967-1960 (τ) period ($p_i = \phi[X_{i\tau}]$). After obtaining $\widehat{p_i}$ for all firms in the data, we restrict the estimation to two sub-samples which focus on firms with overlap in the distribution of $\widehat{p_i}$, i.e. $\widehat{p_i} \in [0.08, 0.92]$ and $\widehat{p_i} \in [0.10, 0.90]$. Finally, columns 7 and 8 show that results are robust to semi-parametric estimators (Abadie, 2005) and recently developed difference-in-differences estimator proposed by Sant'Anna and Zhao (2020) which is robust to a potential misspecification of the linear model or the estimation of $\widehat{p_i}$.

Finally, columns 9 and 10 in Table 5 show that our statistical conclusions are similar when we use alternative methods that adjust for the small sample size. The former method is a wild bootstrap clustered at the firm level and adjusted for the small sample. The latter is a permutation method in which we randomly assign the empirical distribution of the treatment, i.e. number of

[11] Outliers are also unlikely to explain our results. Figure A.9 assesses the influence of outliers on firm-level results in Table 4 by winsorizing the continuous dependent variables at different percentiles. All figures show convergence of estimates towards more precisely estimated zeros when we replace influential values by less influential ones.

firms treated. We again conclude that after 1970 there is a statistically significant destruction of links with U.S. banks with no effects on firm performance.

6 Mechanisms

This section discusses and empirically scrutinizes different mechanisms that can explain the destruction of links between firms and U.S. banks and the lack of an impact on the operations of affected firms in Chile. Motivated by prominent public policies implemented in the 1971-1973 period, we examine the role of state-owned banks, the nationalization of firms, and political connections between firms and the left-wing coalition in power.

6.1 What explains the destruction of links between U.S. banks and Chilean firms?

There are four potential agents that could be responsible for the destruction of equilibrium business links: (i) U.S. private banks, (ii) Chilean firms, (iii) Allende's government, and (iv) the U.S. government. Let us first focus on the U.S. side. The U.S. government could have increased the cost of bilateral business relations between U.S. banks and Chilean firms, which would led to the destruction. An example of this is higher transaction costs caused by U.S. government sanctions: William Broe from the CIA proposed the "nonrenewal of bank credits, a slowdown in deliveries of spare parts, pressure on Chilean savings and loan companies, and withdrawal of technical help by private companies" (Sigmund, 1974, p.323). Qualitative evidence from the Church Committee also supports other mechanisms: "In the fall of 1970, the [Export-Import] Bank dropped Chile's credit rating from 'B,' the second category, to 'D,' the last category. Insofar as the rating contributed to similar evaluations by private U.S. banks, corporations, and international private investors, it aggravated Chile's problem of attracting and retaining needed capital inflow through private foreign investment" (U.S. Senate, 1975, p.35).

U.S. private banks could also have unilaterally decided to cut links with Chilean firms without being incentivized by the government. There are at least two possible reasons for this. First, when compared to other international banks, U.S. banks could have been suffering from an idiosyncratic shock in the 1971-1973 period, which would have naturally led to this destruction. We gathered annual data for the bank sector in the countries of all international banks mentioned in the Chilean annual reports. Reassuringly, Figure 3 suggests the U.S. financial sector was evolving similarly as

the bank sectors in Europe and elsewhere.[12] Second, U.S. banks could have covertly implemented private sanctions independently from the government. Unfortunately, this mechanism is almost impossible to test. Some investigations document the political actions of private U.S. firms which had economic interests in Chile. For example, the ITT Corporation owned 70% of the Chilean Telephone Company, financed a right-wing newspaper, and provided monetary resources to Henry Kissinger and the CIA to "induce economic collapse" in Chile (U.S. Senate, 1975).[13] There is also evidence that U.S. banks were involved in funding coordinated efforts to prevent Allende from taking office (Labarca, 1971). However, evidence supporting the unilateral—e.g. U.S. driven only—destruction of financial relationships is lacking.

Chilean firms could also have unilaterally cut links with the U.S. banking sector to focus on developing domestic financial relationships. The U.P. development strategy towards the domestic economy could have changed the relative returns from domestic compared to international relationships. Although plausible, patterns in the data suggest this is unlikely to be the primary explanation. To test for this mechanism, we collected data on all firms purchased by the state during Allende's term. The rationale behind this strategy is that recently nationalized firms are presumably the firms with the highest incentives to develop local relationships. Thirty-two of the 53 firms (60%) in the sample were nationalized. Reassuringly, this number is similar across firms with and without links to U.S. banks in the 1967-1969 period. Therefore, the actions of Chilean firms are unlikely to be the main explanation for the destruction of links.

Last but not least, the Allende government could have destroyed financial links after taking direct control of some firms by placing his people in key managerial positions. Our results can be theoretically explained by this. For example, it could be the case that Salvador Allende nationalized firms with previous U.S. links precisely because those firms lost value. After those purchases, the government could have worked with these firms to prevent them from experiencing negative impacts. To test for this possibility, we digitized the names of all board members ($\mathcal{B}$) and constructed a set with the names of people in Allende's inner circle ($\mathcal{I}$).[14] Board members are key

[12]Trends in deposits over GDP and bank credit over GDP are similar across the U.S., Europe, and elsewhere. If anything, both panels in Figure 3 suggest that the U.S. banking sector became stronger after 1970 relative to that of Europe.

[13]Whether U.S. foreign policy or the actions of the U.S. private sector had an impact on the Chilean economy during Allende's term is highly debated. Some scholars claim that it contributed to the economic collapse. One argument is that the Ex-Im Bank decreased imports and this contributed to trucker strikes (Oct 1972–Sept 1973). Other scholars argue that U.S. policies had only a minor influence on the Chilean economy (Sigmund, 1974, p.337).

[14]The names include all secretaries of state during this period, people who were members of the Group of Personal Friends (*Grupo de Amigos Personales*, GAP), and prominent leaders of left-wing political parties.

positions in the firm and are in charge of the most important business decisions. We then took the intersection between both sets ($\mathcal{B} \cap \mathcal{I}$) to find firms who were under indirect control of Salvador Allende through his social network. We found only one Allende-connected person. Thus, this seems to be at most a small impact on the destruction of relationships.

Overall, the collection of evidence presented in this section suggests a comparatively more active role played by the U.S. in the destruction of links between U.S. banks and Chilean firms. However, we cannot fully discard the actions of Chilean firms and the government in the changing business relations after 1970.

6.2 The importance of domestic and state-owned banks

Salvador Allende's nationalization program is perhaps one of the most well-known policies of his period in office. The idea was radical and aimed to transform the economy by making the state the leading economic and financial actor. Besides price controls and wage increases, one of the pillars of the Allende programa was to take control of firms and banks, and then use the newly state-controlled banks as a source of credit for state-owned firms (Popular Unity, 1969).

We empirically assess the importance of state-owned banks in counteracting the destruction of U.S. bank relationships using equations (1) and (2). The main difference with our previous analysis is the use of three other dependent variables: (i) the number of links with all types of banks, i.e. domestic and international; (ii) the number of links with all types of domestic banks; and (iii) number of links with state-owned banks which are by definition a subset of domestic banks. We define the last group by reading through the annual reports of the Production Development Corporation (*Corporación de Fomento de la Producción*, CORFO). A bank is state-owned any time the state owns more than 50 percent of it, which happened in 14 of 22 banks in our data in 1971. Previous to Allende's term, only the Bank of the State was state-owned.

Panel A in Table 6 presents estimates of equation (1). As before, we present results from three specifications to check for the robustness of results, and parametric results (equation 2) in panel B. Columns 1-3 show that the total number of bank relationships remains similar across firms with and without U.S. links before Allende. These coefficients are both economically small when compared to the sample average and also statistically indistinguishable from zero. Columns 4-6 give the number of links with domestic banks, both private and public. We observe a clear increase in the number of relationships with domestic banks starting in 1971. The average firm with a U.S.

link in 1967-1969 added one additional link with a domestic bank during Allende's term, a 20 percent increase from an average of five bank links. Interestingly, columns 7-9 reveal that most of the newly created links can be explained by relationships with state-owned banks, which of course were controlled by Salvador Allende during these years.[15]

The existence of new links between firms and state-owned banks after 1970 motivated us to examine if the null effects we documented in Table 4 could be masking heterogeneous impacts across different types of firms. In particular, we hypothesize that firms with U.S. links which also had an established relationships with a (soon to be) state-owned bank were less harmed than similar firms without these established links. The rationale lies on the idea that new bank relationships are more costly to build than to simply use the existing ones. To test for this hypothesis, we augment equation (2) in the following manner:

$$\begin{aligned} Y_{ijt} &= \alpha\,(\text{U.S. bank}_i \times \text{Allende}_t) + \beta\,(\text{U.S. bank}_i \times \text{Allende}_t \times N_i) \\ &+ \gamma\,(\text{Allende}_t \times N_i) + \phi_i + \phi_{jt} + \epsilon_{ijt} \end{aligned} \tag{3}$$

where N_i is the share of (soon to be) state-owned banks in the firm i's bank portfolio in 1969. This is, if firm k has two bank relations in 1969 and one of them is with a domestic bank that will be nationalized by Allende, then $N_k = 0.5$. Similarly, if firm k has three bank relations in 1969, but only one of the two domestic banks in k's portfolio will be nationalized by Allende, then $N_k = 0.33$. To facilitate the interpretation of coefficients, we include N_i in deviations from the mean, i.e. $(N_i - \overline{N}_{1969})$ where $\overline{N}_{1969} = 0.44$. The parameter of interest is β and measures the effect of having more (or less) links to nationalized banks during the Allende government among firms with previous links to U.S. banks. If banks controlled by the state during Allende's term allowed firms to counteract the negative impacts of U.S. links, we then expect $\beta > 0$ every time higher Y_{it} signals better performance. All remaining variables, fixed effects, and parameters are defined as before, and the error term is again clustered by firm.

Table 7 presents estimates of equation (3). To facilitate the interpretation of the econometric results, we always present results from the statistical test $-0.2 \times \beta = 0$ which captures the impact of one fewer link with a state-owned bank than the average firm. Columns 1-5 constitute what we interpret as suggestive evidence of negative impacts on firms with restrictive ability to counteract the destruction of links with U.S. banks. Firms with fewer links to state-owned banks during

[15]Figure A.11 visually presents the corresponding non-parametric estimates. As can be seen in this figure, new links are formed with domestic banks, leaving the number of total bank links unchanged during Allende's term.

Allende's term experienced a decrease in their total debt (column 2), assets (column 3), and sales (column 4). As a consequence of lower debt and assets, we observe a null impact on leverage.

Columns 6 and 7 in Table 7 present heterogeneous impacts on stock returns. Both columns show that firms with more links to state-owned banks before Allende's rise to power experienced lower stock returns during Allende's term. A simple interpretation for these findings is that financial investors believed that the nationalization of private banks would decrease firm value. The point estimates imply that, all else equal, a firm which only had relationships with state-owned banks ($N_i = 1$) was perceived to be $(1 - 0.44) \times 0.19 = 11\%$ less valuable than the average firm ($\overline{N}_{1969} = 0.44$), i.e. the value of one *fewer* link to a state-owned bank was $-0.2 \times \beta = 4\%$. How can links with state-owned banks be positive for firm-level outcomes but decrease value from the perspective of investors? Firm-level outcomes reflect short-term effects while stock market valuations reflect long-term valuations, which suggest their positive impact on firms was unsustainable.[16]

6.3 Discussion

How valuable and sustainable is the substitution of financial relationships from international to domestic banks as a financial strategy? Several characteristics of our analysis are worth stressing in order to answer this question. However, the historical context only allows us to provide short-run estimates on firm-level outcomes because the 1973 coup abruptly ended the Allende government. A priori, it is unclear how sustainable and beneficial the new financial relations would have been. The sustainability likely depends on the quality of new state-owned banks and the general equilibrium effects of the newly created relationships. Theoretically, new financial links could be displacing existing ones of either higher or lower value. Domestic banks could have also been providing additional financial services to affected firms. The context and data availability restrict our ability to provide more evidence on this situation. However, the negative value that financial investors placed on financial links with recently nationalized banks suggests that the benefits for firms could have been short-lived.

Overall, the empirical evidence presented in this section suggests that the creation of new links between firms and state-owned banks during the 1971-1973 period are the most likely explanation behind the resilience of Chilean firms. Potential negative firm effects associated to the destruc-

[16]Table A.8 shows that all results in the heterogeneity analysis are, if anything, stronger when we control for predetermined firm characteristics interacted with an indicator for the 1971-1973 period. In addition, Figure A.12 presents a visual analogue of these results with margins graphs for all seven outcomes in Table 7.

tion of links with U.S. banks appear to have been neutralized by the creation of new links with state-owned banks. Yet these results lead to an important question: what was the impact of U.S. sanctions on the Chilean economy? Our econometric strategy is unfortunately not well suited to answer this question because of the absence of a comparison group for firms in the control group. As firms within a country are part of a production network, it is certainly plausible that all firms were negatively impacted. However, the fact that the Chilean economy performed well in 1971—when the U.S. covert action program was in place—and worsened only in the following years, suggests that the poor performance of the economy as a whole was probably more related to internal rather than external factors. Of course, the dynamic macroeconomic patterns are only suggestive as the intensity of U.S. sanctions could have also been evolving over time.

7 Conclusion

We have provided empirical evidence for the destruction of business relationships between U.S. banks and Chilean firms after the rise of socialist Salvador Allende as president in 1970. Using other bilateral business relations as comparison group, we show that a disproportionate destruction of links with U.S. banks had little impact on Chilean firms. Substitution of financial links towards state-owned banks in an increasing state-owned domestic banking sector appears to be the key mechanism behind this. These findings are important because they constitute novel empirical evidence on banking networks changing in response to foreign political contexts.

There are at least two lessons from our analysis. First, although the recent conflict between Russia and Ukraine has revealed that non-state actors can play an important part in governmental sanctions, we have shown that they also played a part in previous international conflicts such as the Cold War. Regardless of the explanation behind the destruction of links between the U.S. and Chile, we have shown that bilateral business relationships can respond to local political events that are important in the context of an international conflict. Second, the lack of impact on Chilean firms suggests that there is a limit to hegemonic power and coordination with other agents might be required to maximize economic damage. The increasingly interconnected worldwide economy has the potential to limit hegemonic power even more, particularly when financial diversification is part of a country's portfolio.

Finally, our results pose new questions about the role of the financial sector—and other non-state actors—in international business networks during the twentieth century and their potential

impacts across borders. Future research would benefit from empirical analyses with larger samples, longer time spans after sanctions are removed, more outcomes, and a focus on other non-state agents as in recent work by Hart et al. (2022). These additional dimensions would further improve our understanding of the magnitude and extent of the impacts sanctions have on local economies. Our analysis highlights that domestic countervailing forces, and contemporaneous developments in the local economy more generally, can be critical to understand the extent to which evolving bilateral business relations can affect firms and the economy more broadly.

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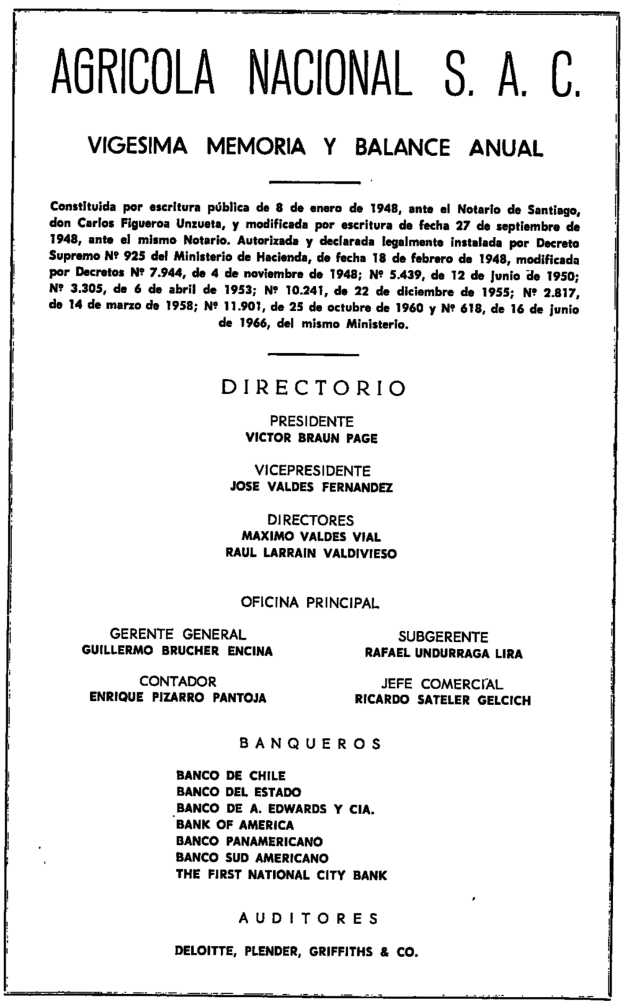
Figure 1: Firm-level annual reports



AGRICOLA NACIONAL S. A. C.

VIGESIMA MEMORIA Y BALANCE ANUAL

Constituida por escritura pública de 8 de enero de 1948, ante el Notario de Santiago, don Carlos Figueroa Unzueta, y modificada por escritura de fecha 27 de septiembre de 1948, ante el mismo Notario. Autorizada y declarada legalmente instalada por Decreto Supremo Nº 925 del Ministerio de Hacienda, de fecha 18 de febrero de 1948, modificada por Decretos Nº 7.944, de 4 de noviembre de 1948; Nº 5.439, de 12 de junio de 1950; Nº 3.305, de 6 de abril de 1953; Nº 10.241, de 22 de diciembre de 1955; Nº 2.817, de 14 de marzo de 1958; Nº 11.901, de 25 de octubre de 1960 y Nº 618, de 16 de junio de 1966, del mismo Ministerio.

DIRECTORIO

PRESIDENTE
VICTOR BRAUN PAGE

VICEPRESIDENTE
JOSE VALDES FERNANDEZ

DIRECTORES
MAXIMO VALDES VIAL
RAUL LARRAIN VALDIVIESO

OFICINA PRINCIPAL

GERENTE GENERAL
GUILLERMO BRUCHER ENCINA

SUBGERENTE
RAFAEL UNDURRAGA LIRA

CONTADOR
ENRIQUE PIZARRO PANTOJA

JEFE COMERCIAL
RICARDO SATELER GELCICH

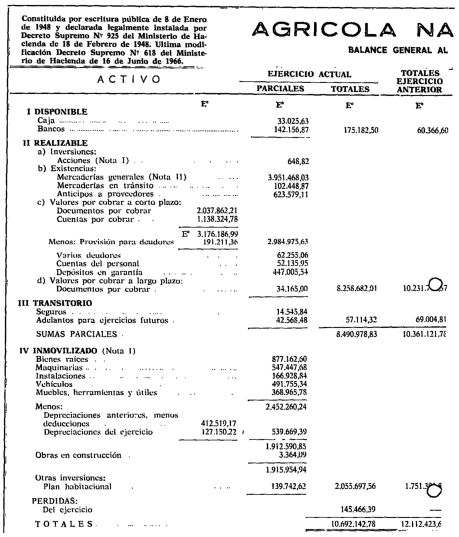
BANQUEROS

BANCO DE CHILE
BANCO DEL ESTADO
BANCO DE A. EDWARDS Y CIA.
BANK OF AMERICA
BANCO PANAMERICANO
BANCO SUD AMERICANO
THE FIRST NATIONAL CITY BANK

AUDITORES

DELOITTE, PLENDER, GRIFFITHS & CO.

(a) Bank relationships



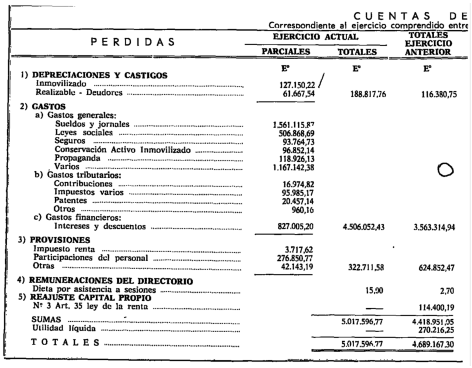
Constituida por escritura pública de 8 de Enero de 1948 y declarada legalmente instalada por Decreto Supremo Nº 925 del Ministerio de Hacienda de 18 de Febrero de 1948. Ultima modificación Decreto Supremo Nº 618 del Ministerio de Hacienda de 16 de Junio de 1966.

AGRICOLA NA

BALANCE GENERAL AL

ACTIVO	EJERCICIO ACTUAL PARCIALES	EJERCICIO ACTUAL TOTALES	TOTALES EJERCICIO ANTERIOR
	E°	E°	E°
I DISPONIBLE			
Caja	33.025,63		
Bancos	142.156,87	175.182,50	60.366,60
II REALIZABLE			
a) Inversiones:			
Acciones (Nota 1)	648,82		
b) Existencias:			
Mercaderías generales (Nota 11)	3.951.468,03		
Mercaderías en tránsito	102.448,87		
Anticipos a proveedores	623.579,11		
c) Valores por cobrar a corto plazo:			
Documentos por cobrar 2.037.862,21			
Cuentas por cobrar 1.138.324,78			
E° 3.176.186,99			
Menos: Provisión para deudores 191.211,36	2.984.975,63		
Varios deudores	62.255,06		
Cuentas del personal	52.135,95		
Depósitos en garantía	447.005,54		
d) Valores por cobrar a largo plazo:			
Documentos por cobrar	34.165,00	8.258.682,01	10.231.[illegible]
III TRANSITORIO			
Seguros	14.545,84		
Adelantos para ejercicios futuros	42.568,48	57.114,32	69.004,81
SUMAS PARCIALES		8.490.978,83	10.361.121,7[illegible]
IV INMOVILIZADO (Nota 1)			
Bienes raíces	877.162,60		
Maquinarias	547.447,68		
Instalaciones	166.928,84		
Vehículos	491.755,34		
Muebles, herramientas y útiles	368.965,78		
Menos:	2.452.260,24		
Depreciaciones anteriores, menos deducciones 412.519,17			
Depreciaciones del ejercicio 127.150,22	539.669,39		
	1.912.590,85		
Obras en construcción	3.364,09		
	1.915.954,94		
Otras inversiones:			
Plan habitacional	139.742,62	2.055.697,56	1.751.3[illegible]
PERDIDAS:			
Del ejercicio		145.466,39	—
TOTALES		10.692.142,78	12.112.423,[illegible]

(b) Balance sheet



CUENTAS DE

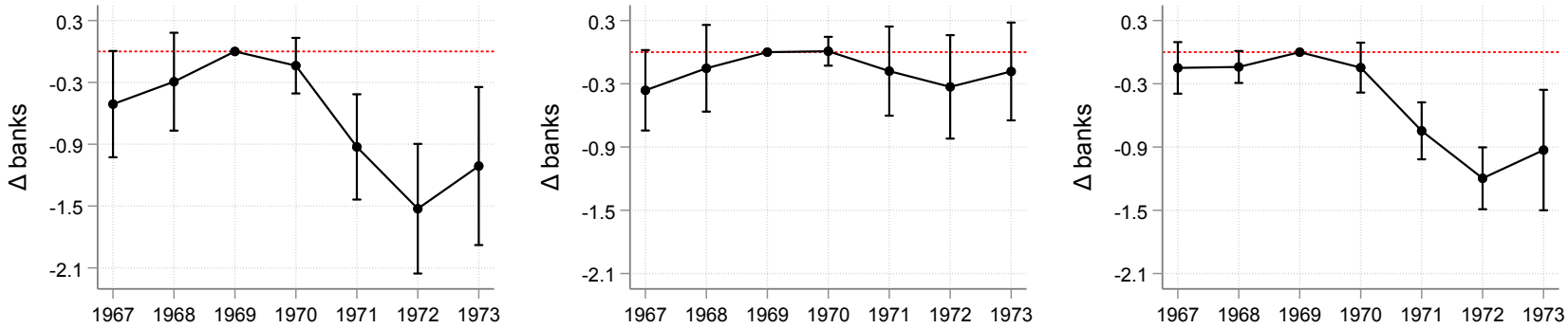
Correspondiente al ejercicio comprendido entre

PERDIDAS	EJERCICIO ACTUAL PARCIALES	EJERCICIO ACTUAL TOTALES	TOTALES EJERCICIO ANTERIOR
	E°	E°	E°
1) DEPRECIACIONES Y CASTIGOS			
Inmovilizado	127.150,22		
Realizable - Deudores	61.667,54	188.817,76	116.380,75
2) GASTOS			
a) Gastos generales:			
Sueldos y jornales	1.561.115,87		
Leyes sociales	506.868,69		
Seguros	93.764,73		
Conservación Activo Inmovilizado	96.852,14		
Propaganda	118.926,13		
Varios	1.167.142,38		
b) Gastos tributarios:			
Contribuciones	16.974,82		
Impuestos varios	95.985,17		
Patentes	20.457,14		
Otros	960,16		
c) Gastos financieros:			
Intereses y descuentos	827.005,20	4.506.052,43	3.563.314,94
3) PROVISIONES			
Impuesto renta	3.717,62		
Participaciones del personal	276.850,77		
Otras	42.143,19	322.711,58	624.852,47
4) REMUNERACIONES DEL DIRECTORIO			
Dieta por asistencia a sesiones		15,00	2,70
5) REAJUSTE CAPITAL PROPIO			
Nº 3 Art. 35 ley de la renta		—	114.400,19
SUMAS		5.017.596,77	4.418.951,05
Utilidad líquida		—	270.216,25
TOTALES		5.017.596,77	4.689.167,30

(c) Income statement

Notes: This is an example of a business report submitted to Chile's regulatory agency. In this example, all three pieces of information in panels (a) through (c) are part of the 1967 report submitted by the "Agrícola Nacional" company, a manufacturing firm in the agricultural industry which is part of our data. More details in section 3.1.

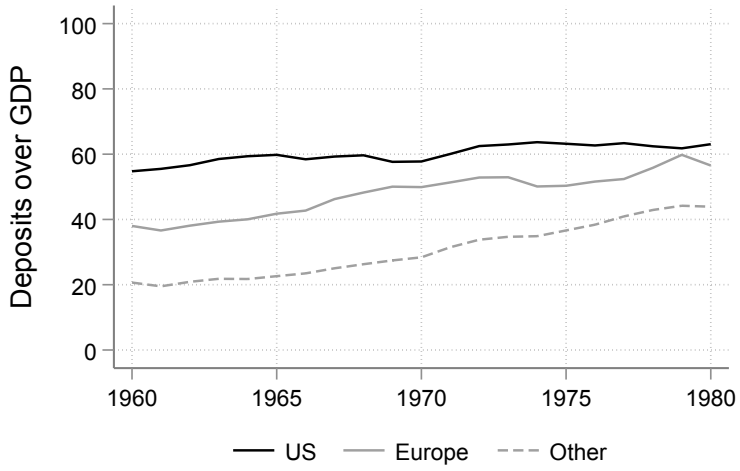
Figure 2: Firm relationships with international banks, 1967-1973



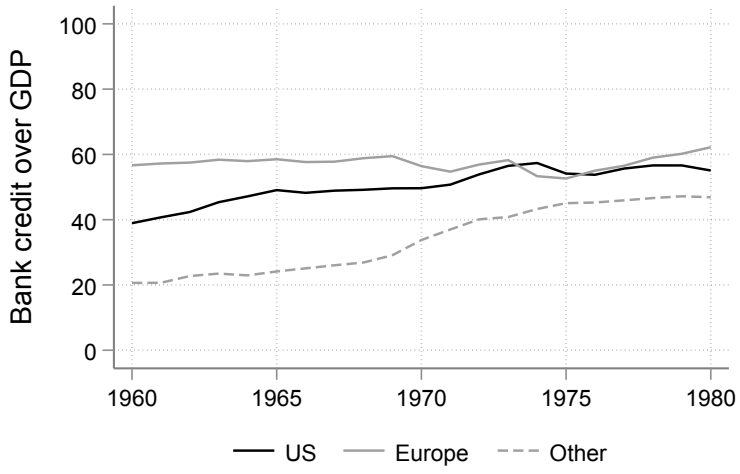
(a) All international banks (b) International non-U.S. banks (c) U.S. banks

Notes: These figures show the change in firm-bank relationships before and after socialist Salvador Allende rose to power in 1970. In particular, we present difference-in-differences estimates of equation (1) using firm-level data for the 1967-1973 period. The omitted category is the indicator for firms with U.S. links in 1969. The dependent variable is always the number of bank relationships as revealed by the business reports. The *y*-axis presents the coefficient and thus the change in the number of bank-relationships. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. U.S. and non-U.S. banks are mutually exclusive categories which added up constitute "All international banks." More details in section 5.1.

Figure 3: Bank sector in the United States and elsewhere, 1960-1980



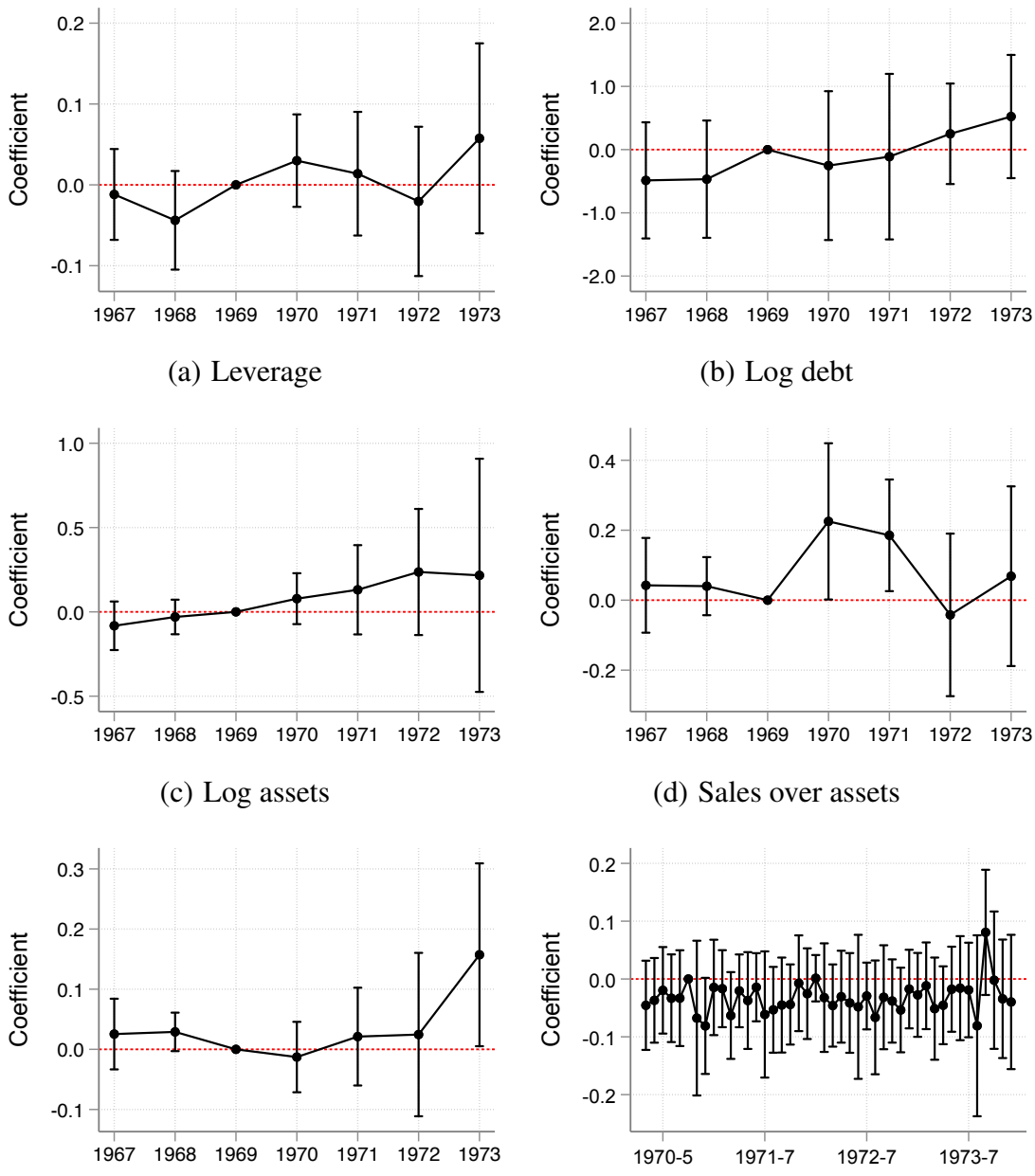
(a) Deposits over GDP



(b) Bank credit over GDP

Notes: These figures present the evolution of the bank sector in the U.S., Europe, and elsewhere. Time series of deposits over GDP (panel A) and bank credit over GDP (panel B) in the U.S. and selected countries in Europe and elsewhere. We select the home countries of banks mentioned in the business reports. Country-level data from the World Bank. More details in section 5.1.

Figure 4: Firm-level outcomes before and during Allende's term, 1967-1973



(a) Leverage

(b) Log debt

(c) Log assets

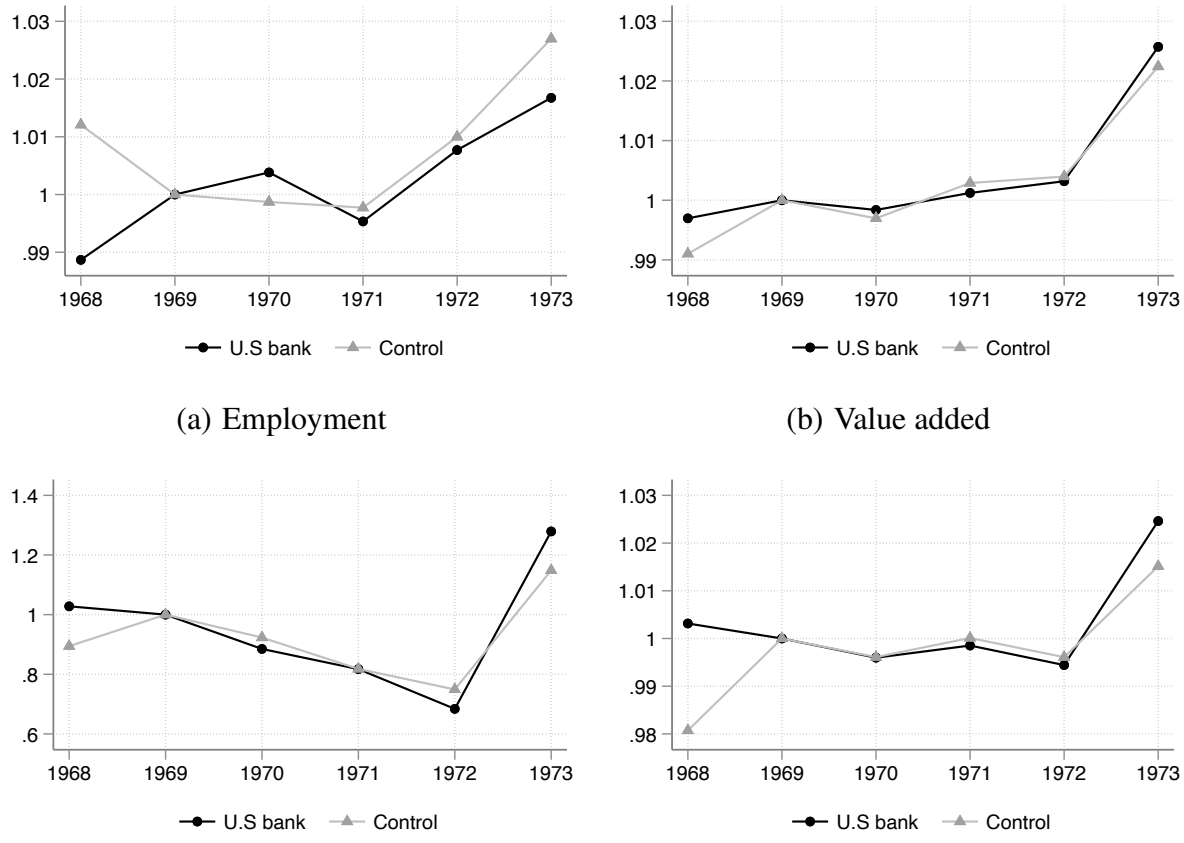
(d) Sales over assets

(e) Return over assets

(f) Monthly stock returns

Notes: These figures show the change in firm outcomes before and after socialist Salvador Allende rose to power in 1970. In particular, we present difference-in-differences estimates of equation (1) using firm-level data for the 1967-1973 period. The omitted category is the indicator for firms with U.S. links in 1969. The dependent variable is always a firm outcome as revealed by business reports, except in panel (f) where we use monthly stock prices. The *y*-axis presents the estimated coefficient and thus the change in the outcome of interest. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. More details in section 5.3.

Figure 5: Evolution of industry-by-region outcomes, 1968-1973



(a) Employment

(b) Value added

(c) Value added over payroll

(d) Payroll per employee

Notes: These figures characterize the evolution of economic areas that were exposed and not exposed to the U.S. financial sector before Salvador Allende rose to power in 1970. We define an area as an industry-region pair. In particular, we present averages of industry-by-region data from historical collections constructed form the annual Manufacturing Census. We classify industry-regions as linked to U.S. banks or not based on firm-level annual reports, and the industry and region where firms operate. More details in section 5.3.

Table 1: Descriptive statistics for firms in 1967-69

	All firms with reports				Firms with relations to international banks			
		Relation with U.S. bank?				Relation with U.S. bank?		
	All	Yes	No	Difference (2)-(3)	All	Yes	No	Difference (6)-(7)
A. Firm characteristics	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log assets	16.57	17.22	15.59	1.63***	17.11	17.22	16.76	0.45
	(2.75)	(3.11)	(1.72)	[0.00]	(2.81)	(3.11)	(1.41)	[0.62]
Log fixed assets	16.02	16.76	14.89	1.87***	16.58	16.76	15.99	0.77
	(2.86)	(3.17)	(1.86)	[0.00]	(2.89)	(3.17)	(1.60)	[0.41]
Sales over assets	0.67	0.71	0.59	0.12	0.68	0.71	0.58	0.13
	(0.47)	(0.45)	(0.51)	[0.30]	(0.45)	(0.45)	(0.44)	[0.39]
Log debt	15.14	15.97	13.84	2.14***	15.83	15.97	15.34	0.63
	(3.25)	(3.36)	(2.62)	[0.01]	(3.12)	(3.36)	(2.15)	[0.60]
Leverage	0.36	0.39	0.31	0.08*	0.38	0.39	0.33	0.06
	(0.18)	(0.16)	(0.20)	[0.07]	(0.17)	(0.16)	(0.18)	[0.27]
Financial expenses	0.05	0.04	0.05	-0.00	0.05	0.04	0.06	-0.02
	(0.04)	(0.04)	(0.05)	[0.65]	(0.04)	(0.04)	(0.06)	[0.22]
Int'l market: Indicator exporter	0.29	0.39	0.12	0.27**	0.36	0.39	0.25	0.14
	(0.46)	(0.49)	(0.34)	[0.03]	(0.48)	(0.49)	(0.45)	[0.50]
Int'l market: Indicator importer	0.45	0.56	0.25	0.31**	0.53	0.56	0.42	0.14
	(0.50)	(0.50)	(0.44)	[0.02]	(0.50)	(0.50)	(0.51)	[0.53]
Industry: Primary sector	0.19	0.20	0.19	0.01	0.21	0.20	0.25	-0.05
	(0.40)	(0.40)	(0.40)	[0.99]	(0.41)	(0.40)	(0.45)	[0.69]
Industry: Secondary sector	0.56	0.66	0.41	0.25**	0.64	0.66	0.58	0.08
	(0.50)	(0.48)	(0.50)	[0.05]	(0.48)	(0.48)	(0.51)	[0.74]
Industry: Tertiary sector	0.25	0.15	0.41	-0.26**	0.15	0.15	0.17	-0.02
	(0.44)	(0.36)	(0.50)	[0.02]	(0.36)	(0.36)	(0.39)	[0.99]
B. Bank relationships								
National banks	4.29	5.20	2.86	2.34***	4.84	5.20	3.63	1.57**
	(2.43)	(2.50)	(1.47)	[0.00]	(2.39)	(2.50)	(1.49)	[0.04]
International banks	1.18	1.56	0.57	0.99***	1.49	1.56	1.24	0.32
	(1.08)	(1.07)	(0.79)	[0.00]	(1.00)	(1.07)	(0.71)	[0.32]
Any national bank	0.85	0.86	0.84	0.02	0.87	0.86	0.90	-0.03
	(0.25)	(0.24)	(0.27)	[0.77]	(0.23)	(0.24)	(0.21)	[0.70]
Any international bank	0.57	0.73	0.32	0.41***	0.73	0.73	0.73	0.00
	(0.42)	(0.34)	(0.42)	[0.00]	(0.33)	(0.34)	(0.31)	[0.99]
Share national banks	0.82	0.78	0.88	-0.10***	0.77	0.78	0.74	0.04
	(0.14)	(0.11)	(0.16)	[0.00]	(0.12)	(0.11)	(0.15)	[0.37]
Share international banks	0.18	0.22	0.12	0.10***	0.23	0.22	0.26	-0.04
	(0.14)	(0.11)	(0.16)	[0.01]	(0.12)	(0.11)	(0.15)	[0.35]
Number of firms	68	41	27		53	41	12	

Notes: Mean and standard deviation (in parentheses) for a cross-section of firms observed in 1967-69, i.e. before the government of Salvador Allende (1970-1973). Standard errors in square brackets in columns 4 and 8. Statistical significance in columns 4 and 8 using permutation tests: *** p<0.01, ** p<0.05, * p<0.1. More details in section 4.

Table 2: The evolving relationships between firms and international banks, 1967-1973

	Dependent variable: Number of bank relationships with								
	All international banks			Non U.S. banks			U.S. banks		
Panel A	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Link to U.S. bank in 1967-69									
× Year 1971	-0.86***	-0.71***	-0.67**	-0.14	-0.06	-0.11	-0.72***	-0.64***	-0.56***
	(0.24)	(0.25)	(0.28)	(0.20)	(0.22)	(0.24)	(0.11)	(0.13)	(0.20)
× Year 1972	-1.47***	-1.31***	-1.24***	-0.31	-0.21	-0.26	-1.16***	-1.09***	-0.98***
	(0.28)	(0.27)	(0.33)	(0.24)	(0.23)	(0.26)	(0.11)	(0.13)	(0.22)
× Year 1973	-1.00**	-0.89**	-0.77*	-0.12	-0.07	-0.09	-0.88***	-0.82***	-0.68**
	(0.40)	(0.38)	(0.42)	(0.21)	(0.23)	(0.24)	(0.32)	(0.29)	(0.33)
Panel B									
Link to U.S. bank in 1967-69	-1.10***	-0.96***	-0.88***	-0.19	-0.11	-0.15	-0.91***	-0.85***	-0.73***
× Years 1971–1973	(0.25)	(0.25)	(0.28)	(0.20)	(0.21)	(0.23)	(0.14)	(0.13)	(0.20)
Observations	305	305	305	305	305	305	305	305	305
Firms	53	53	53	53	53	53	53	53	53
Firm fixed effects	X	X	X	X	X	X	X	X	X
Year fixed effects	X	X	X	X	X	X	X	X	X
Industry × Allende fixed effects		X	X		X	X		X	X
Controls × Allende			X			X			X
Avg. dependent variable	2.64	2.64	2.64	1.46	1.46	1.46	1.18	1.18	1.18
R-squared (panel B)	0.77	0.79	0.80	0.80	0.83	0.83	0.67	0.69	0.70

Notes: This table presents estimates of different specifications of equations (1) and (2). An observation is a firm-year pair in the period 1967-1973. "Controls" include an indicator for exporters, another indicator for importers, and firm size as measured by assets in balance sheets. Robust standard errors clustered at the firm level are presented in parenthesis. Statistical significance: *** p<0.01, ** p<0.05, * p<0.1. More details in section 5.1.

Table 3: U.S. bank relationships and participation in international markets, 1967-1973

			Firm exports products to...		
	Exports products	Imports inputs	Latin America	U.S.	Rest of the world
Panel A: Without controls	(1)	(2)	(3)	(4)	(5)
Link to U.S. bank in 1967-69 × Allende's term	-0.08	-0.01	-0.07	0.00	0.09
	(0.08)	(0.09)	(0.04)	(0.02)	(0.10)
Panel B: With controls					
Link to U.S. bank in 1967-69 × Allende's term	-0.14	0.01	-0.09	-0.01	0.10
	(0.08)	(0.11)	(0.05)	(0.02)	(0.11)
Observations	355	354	355	355	355
Firms	53	53	53	53	53
Firm fixed effects	X	X	X	X	X
Year fixed effects	X	X	X	X	X
Industry-Allende fixed effects	X	X	X	X	X
Avg. dependent variable	0.35	0.72	0.16	0.04	0.09

Notes: This table presents estimates of different specifications of equations (1) and (2) using the annual panel of firms. An observation is a firm-year pair in the period 1967-1973. "Controls" include an indicator for exporters, another indicator for importers, and firm size as measured by assets in balance sheets. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 5.3.

Table 4: U.S. bank relationships and firm-level outcomes, 1967-1973

						Weekly stock returns	
	Leverage	Logarithm debt	Logarithm assets	Sales over assets	Returns over assets	1970-71	1970-73
Panel A: Without controls	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Link to U.S. bank in 1967-69 × Allende's term	0.02	0.52	0.21	-0.00	0.06	-0.02	-0.01
	(0.04)	(0.45)	(0.19)	(0.08)	(0.04)	(0.02)	(0.01)
Panel B: With controls							
Link to U.S. bank in 1967-69 × Allende's term	0.01	0.24	0.20	0.04	0.06	-0.02	-0.01
	(0.04)	(0.31)	(0.15)	(0.08)	(0.04)	(0.01)	(0.01)
Observations	344	344	346	346	268	2,394	6,686
Firms	53	53	53	53	44	39	41
Firm fixed effects	X	X	X	X	X	X	X
Year fixed effects	X	X	X	X	X		
Week fixed effects						X	X
Industry-Allende fixed effects	X	X	X	X	X	X	X
Avg. dependent variable	0.37	15.7	17.1	0.68	0.19	-0.02	-0.02

Notes: This table presents estimates of different specifications of equations (1) and (2) using the annual panel of firms in columns 1-4 and a weekly panel of stock prices in columns 6 and 7. An observation is a firm observed in a time period (years in columns 1-5, weeks in columns 6-7). "Controls" include an indicator for exporters, another indicator for importers, and firm size as measured by assets in balance sheets. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 5.3.

Table 5: Robustness exercises for main results

		Specification decisions			Estimation methods				Inference (p-values)	
	Statistical test: Different pre-trend	Treatment measure: U.S. link in 1969	Treatment measure: U.S. link in 1967	Bertrand et al. (2004) Collapse pre-post	Crump et al. (2009) Restricted	Crump et al. (2009) Full	Abadie (2005) IPW estimator	Sant'Anna and Zhao (2020) Doubly robust estimator	Wild bootstrap	Permutation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Firm-bank relationships:										
All international banks	0.02	-1.17***	-1.40***	-1.04***	-1.10***	-1.33***	-1.20***	-1.12***	<0.01	0.04
	(0.01)	(0.33)	(0.33)	(0.28)	(0.25)	(0.25)	(0.31)	(0.25)		
International non-U.S. banks	0.01	-0.29	-0.18	-0.19	-0.19	-0.34	-0.34	-0.24	0.62	0.32
	(0.01)	(0.29)	(0.24)	(0.23)	(0.21)	(0.21)	(0.32)	(0.20)		
U.S. banks	0.00	-0.88***	-1.22***	-0.85***	-0.91***	-0.99***	-0.86***	-0.88***	<0.01	0.02
	(0.01)	(0.19)	(0.25)	(0.17)	(0.11)	(0.10)	(0.16)	(0.15)		
B. Firm-level outcomes:										
Indicator exporter	0.00	-0.10	-0.03	-0.10	-0.12	-0.08	-0.09	-0.10	0.33	0.19
	(0.00)	(0.08)	(0.06)	(0.08)	(0.08)	(0.06)	(0.12)	(0.09)		
Indicator importer	-0.01**	0.06	-0.14*	-0.00	-0.01	-0.05	0.01	0.05	0.89	0.44
	(0.00)	(0.13)	(0.08)	(0.10)	(0.10)	(0.07)	(0.12)	(0.14)		
Leverage	0.00	0.02	0.05	0.03	0.02	-0.03	0.07**	0.07*	0.58	0.29
	(0.00)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)		
Log debt	0.01	-0.10	0.32	0.59	0.22	-0.11	0.49	0.49	0.30	0.19
	(0.02)	(0.38)	(0.46)	(0.45)	(0.30)	(0.28)	(0.35)	(0.38)		
Log assets	0.01**	0.02	0.03	0.24	0.20	0.01	0.08	0.05	0.43	0.15
	(0.00)	(0.16)	(0.14)	(0.19)	(0.18)	(0.15)	(0.14)	(0.13)		
Sales over assets	0.00	-0.05	-0.02	0.01	0.02	0.11	-0.01	0.01	0.97	0.44
	(0.00)	(0.11)	(0.10)	(0.08)	(0.08)	(0.09)	(0.09)	(0.07)		
Return over assets	-0.00	0.07	0.09*	0.06	0.06	0.08*	0.08	0.06	0.21	0.15
	(0.00)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)		
Stock market returns (70-71)	0.00	-0.00	-0.00	-0.02	-0.02	-0.02	-0.01	-0.00	0.51	0.12
	(0.00)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)		
Stock market returns (70-73)	0.00	-0.00	-0.00	-0.01	-0.01	-0.01	-0.01	-0.00	0.67	0.18
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)		

Notes: In columns 1-8 each estimate and standard error comes from a different regression. Column titles denote the robustness exercise and rows the outcomes. Columns 9-10 present p-values using a different inference method for the corresponding main result. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in 5.4.

Table 6: Creation of bank relationships

	Number of relationships with...								
				Domestic banks					
	All types of banks (domestic and international)			All			State-owned		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A									
Link to U.S. bank in 1967-69									
× Year 1971	0.24	0.57	0.34	1.10***	1.27***	1.01**	0.75**	0.80**	0.53
	(0.44)	(0.48)	(0.57)	(0.40)	(0.46)	(0.47)	(0.31)	(0.36)	(0.38)
× Year 1972	-0.45	-0.08	-0.33	1.02	1.23*	0.91	0.96*	1.02*	0.69
	(0.67)	(0.73)	(0.83)	(0.62)	(0.65)	(0.67)	(0.53)	(0.55)	(0.54)
× Year 1973	-0.07	0.25	0.09	0.92	1.14	0.86	0.83	0.91	0.60
	(0.81)	(0.87)	(0.94)	(0.65)	(0.69)	(0.71)	(0.53)	(0.57)	(0.57)
Panel B									
Link to U.S. bank in 1967-69	-0.08	0.26	0.05	1.02*	1.22**	0.93	0.85**	0.90**	0.60
× Years 1971-1973	(0.59)	(0.65)	(0.73)	(0.51)	(0.56)	(0.57)	(0.42)	(0.45)	(0.44)
Observations	305	305	305	305	305	305	305	305	305
Firms	53	53	53	53	53	53	53	53	53
Firm fixed effects	X	X	X	X	X	X	X	X	X
Year fixed effects	X	X	X	X	X	X	X	X	X
Industry × Allende fixed effects		X	X		X	X		X	X
Controls × Allende fixed effects			X			X			X
Avg. dependent variable	7.47	7.47	7.47	4.83	4.83	4.83	3.59	3.59	3.59

Notes: This table presents estimates of different specifications of equations (1) and (2). An observation is a firm-year pair in the period 1967-1973. "Controls" include an indicator for exporters, another indicator for importers, and firm size as measured by assets in balance sheets. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 6.

Table 7: The importance of previous relationships with state-owned banks

	Leverage	Logarithm debt	Logarithm assets	Sales over assets	Returns over assets	Weekly stock returns	
						1970-71	1970-73
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Link to U.S. bank × Years 1971-1973 [α]	-0.01	-0.24	-0.15	-0.13	0.11**	0.01	0.01
	(0.05)	(0.53)	(0.21)	(0.13)	(0.05)	(0.01)	(0.01)
× Share state-owned banks 1969 [β]	0.18	3.81**	2.54**	0.91**	-0.14	-0.19**	-0.17**
	(0.27)	(1.51)	(1.15)	(0.45)	(0.18)	(0.08)	(0.07)
Years 1971-1973 × Share state-owned banks 1969	-0.17	-4.04***	-1.95*	-0.67	0.28**	0.16**	0.14**
	(0.22)	(1.39)	(1.05)	(0.40)	(0.12)	(0.08)	(0.06)
Test: -0.2β	-0.04	-0.76**	-0.51**	-0.18**	0.03	0.04**	0.03**
	(0.06)	(0.30)	(0.23)	(0.09)	(0.04)	(0.02)	(0.01)
Observations	344	344	346	346	268	2,394	6,686
Firms	53	53	53	53	44	39	41
Firm fixed effects	X	X	X	X	X	X	X
Year (week) fixed effects	X	X	X	X	X	X	X
Industry × Allende fixed effects	X	X	X	X	X	X	X
Avg. dependent variable	0.37	15.73	17.09	0.68	0.19	-0.02	-0.02

Notes: This table presents estimates of equation (3). An observation is a firm-year pair. The "Share state-owned banks 1969" (N_i) is the share of (soon to be) state-owned banks in the firm i's bank portfolio in 1969. This is, if firm k has three bank relations in 1969, but only one of the two domestic banks in k's portfolio will be nationalized by Allende, then $N_k = 0.33$. To facilitate the interpretation of coefficients, we include N_i in deviations from the mean, i.e. $(N_i - \overline{N}_{1969})$ where $\overline{N}_{1969} = 0.44$. The main parameter of interest is β and measures the differential impact of fewer relations with U.S. banks on firms with different shares of N_i. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 6.

ONLINE APPENDIX

The limits of hegemony: U.S. banks and Chilean firms in the Cold War

Felipe Aldunate, Felipe González, and Mounu Prem

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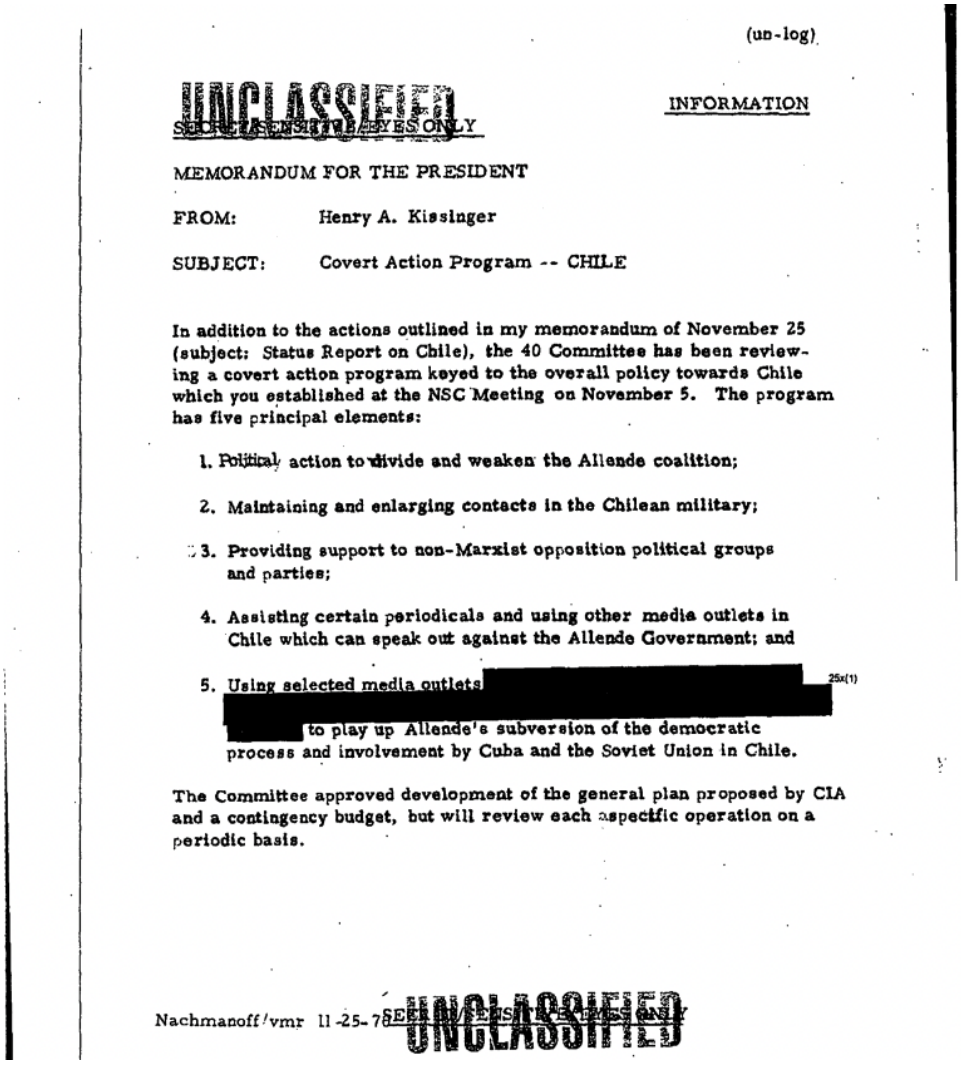
Figure A.1: Memorandum for the President



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INFORMATION

MEMORANDUM FOR THE PRESIDENT

FROM: Henry A. Kissinger

SUBJECT: Covert Action Program -- CHILE

In addition to the actions outlined in my memorandum of November 25 (subject: Status Report on Chile), the 40 Committee has been reviewing a covert action program keyed to the overall policy towards Chile which you established at the NSC Meeting on November 5. The program has five principal elements:

1. Political action to divide and weaken the Allende coalition;
2. Maintaining and enlarging contacts in the Chilean military;
3. Providing support to non-Marxist opposition political groups and parties;
4. Assisting certain periodicals and using other media outlets in Chile which can speak out against the Allende Government; and
5. Using selected media outlets [redacted] 25x(1) [redacted] to play up Allende's subversion of the democratic process and involvement by Cuba and the Soviet Union in Chile.

The Committee approved development of the general plan proposed by CIA and a contingency budget, but will review each specific operation on a periodic basis.

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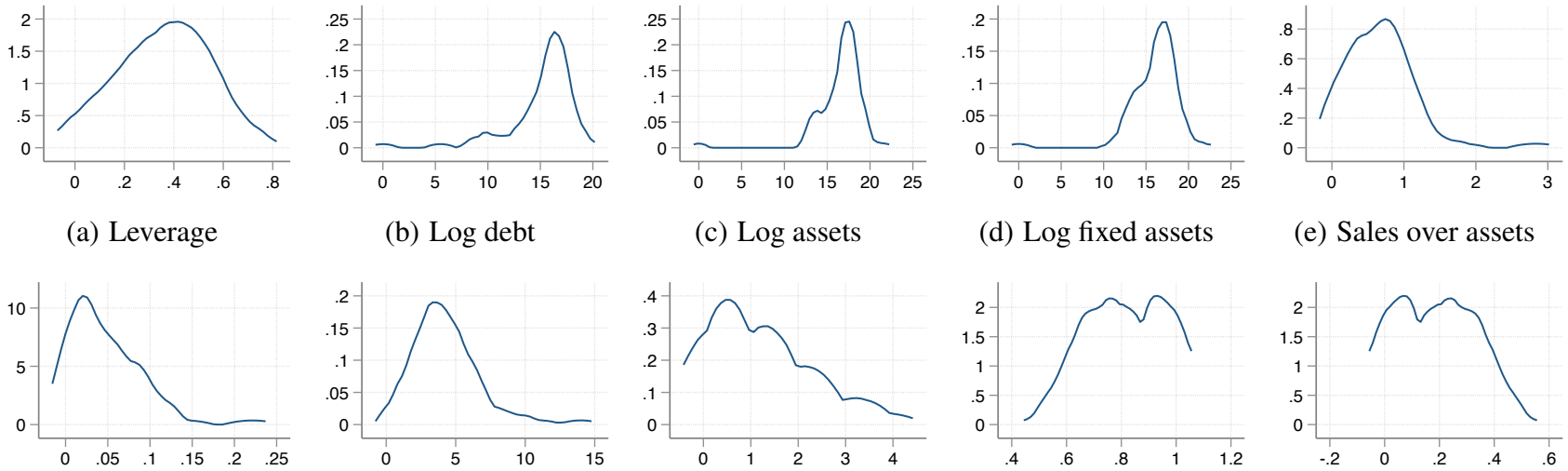
Source: National Security Archive.

Figure A.2: Descriptive statistics, distribution of main variables

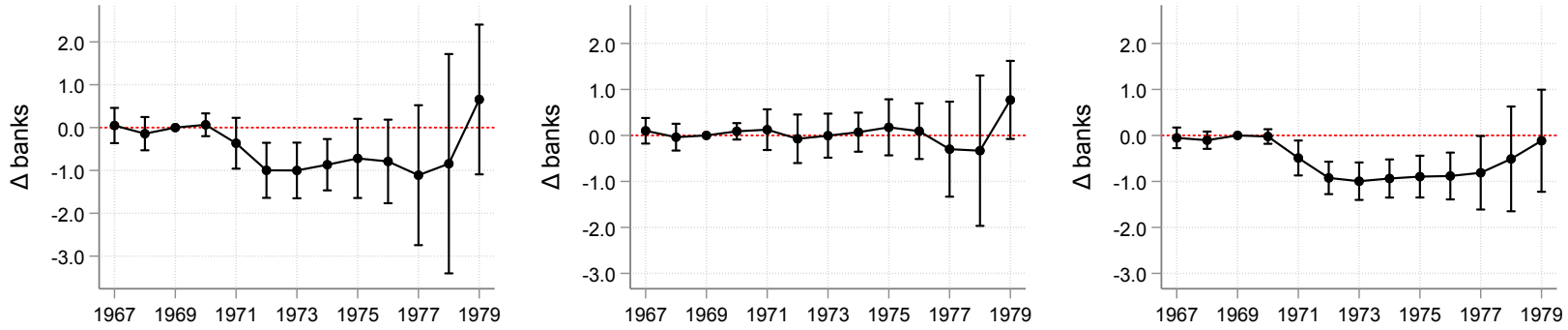


(a) Leverage (b) Log debt (c) Log assets (d) Log fixed assets (e) Sales over assets

(f) Financial expenses (g) Number nat'l banks (h) Number int'l banks (i) Share nat'l banks (j) Share int'l banks

Notes: These figures present the empirical distribution of continuous dependent variables before the Salvador Allende government. The *y*-axis always measures de percentage of observations in the *x*-axis. The value of dependent variables is in the *x*-axis. All figures use an epanechnikov kernel.

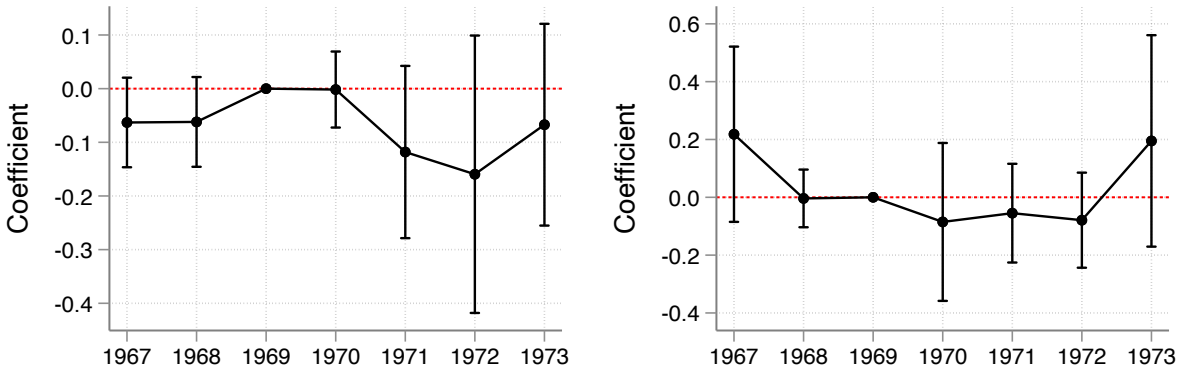
Figure A.3: Additional results, long-run impact on links with international banks



(a) All international banks (b) International non-U.S. banks (c) U.S. banks

Notes: These figures show the change in firm-bank relationships before and after socialist Salvador Allende rose to power in 1970. In particular, we present difference-in-differences estimates of equation (1) using firm-level data for the 1967-1979 period. The omitted category is the indicator for firms with U.S. links in 1969. The dependent variable is always the number of bank relationships as revealed by the business reports. The *y*-axis presents the coefficient and thus the change in the number of bank-relationships. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. More details in section 5.1.

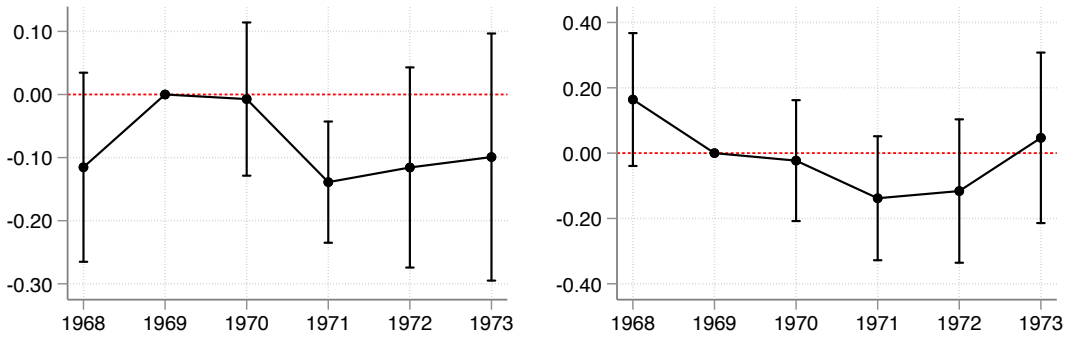
Figure A.4: Participation in international markets



(a) Exports (b) Imports

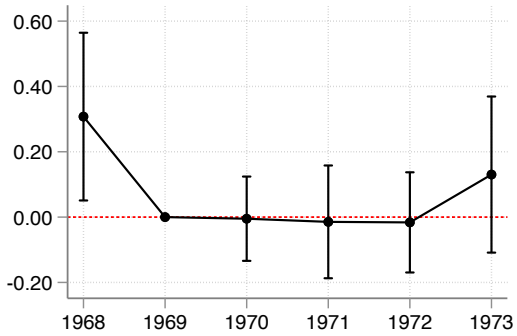
Notes: These figures show the change in import and export patterns before and after socialist Salvador Allende rose to power in 1970. In particular, we present difference-in-differences estimates of equation (1) using firm-level data for the 1967-1973 period. The omitted category is the indicator for firms with U.S. links in 1967-69. The dependent variable is always an indicator for export or import activities as revealed by the business reports. The *y*-axis presents the coefficient and thus the change in the probability of exporting or importing. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. More details in section 5.1.

Figure A.5: Industry-by-region difference-in-differences estimates

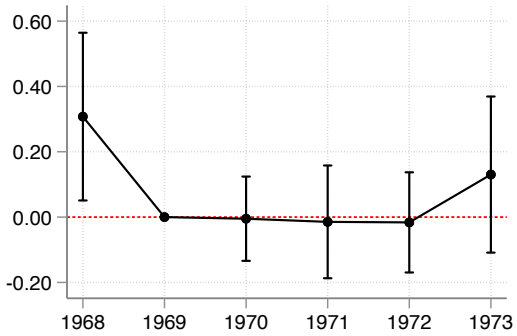


(a) Employment

(b) Value added



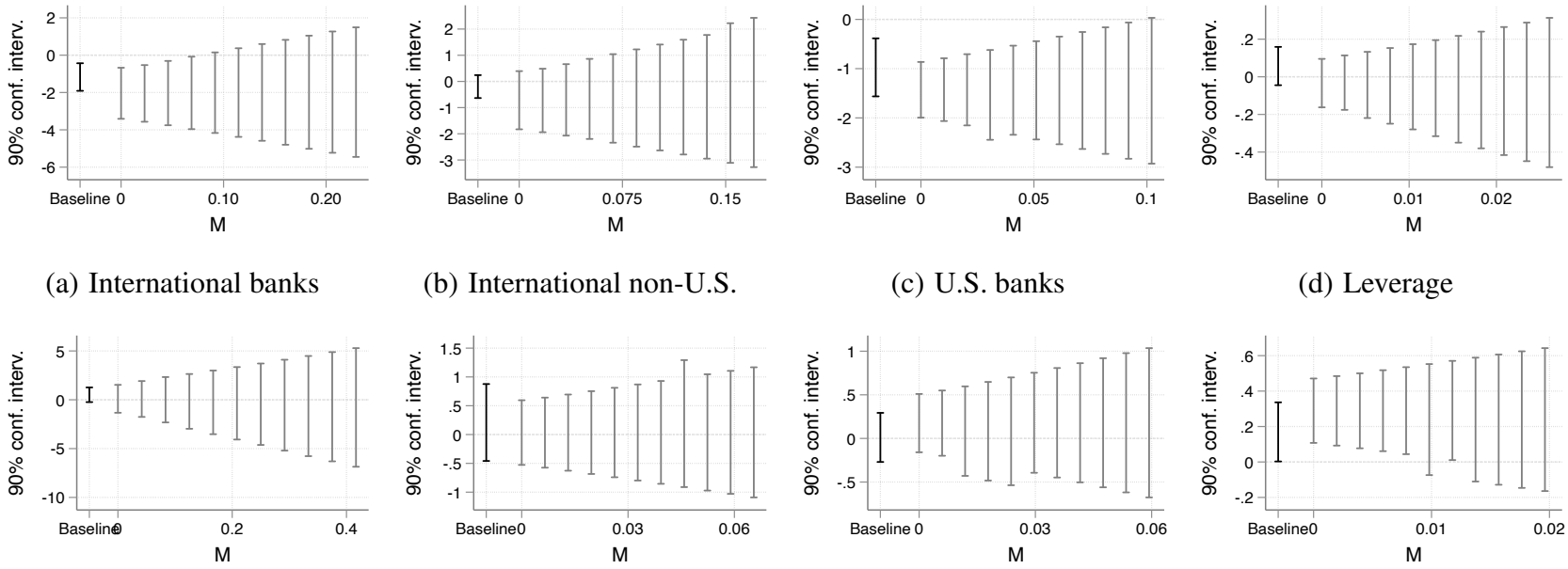
(c) Value added per employee



(d) Payroll per employee

Notes: Difference-in-differences estimates using the industry-region panel data. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. More details in section 5.3.

Figure A.6: Additional results, conservative pre-trend adjustments

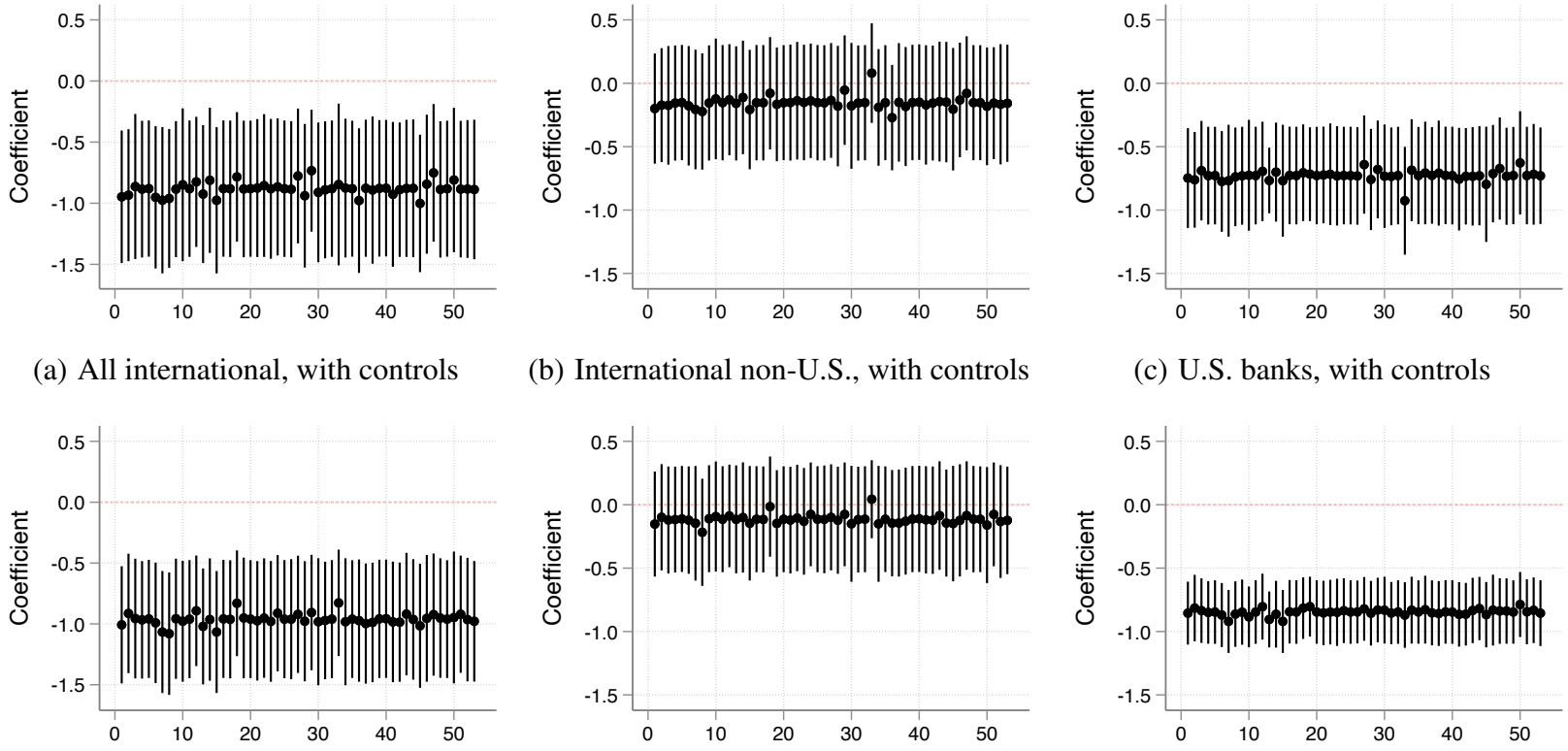


(a) International banks (b) International non-U.S. (c) U.S. banks (d) Leverage

(e) Log debt (f) Log assets (g) Sales over assets (h) Return over assets

Notes: This figure presents the confidence set at 90% for linear and non-linear violation of the parallel trends assumption (Rambachan and Roth, 2021). The figure is shown for the coefficient in 1973. M measures the size of the change in the trend between consecutive periods. Thus $M = 0$ is a linear violation of the parallel trend assumption. The maximum value of M is equal to the trend that has a 50% power of being detected given the precision of the estimates in the pre-period (Roth, 2022). More details in section 5.4.

Figure A.7: Robustness, excluding single firms from the estimation, bank results

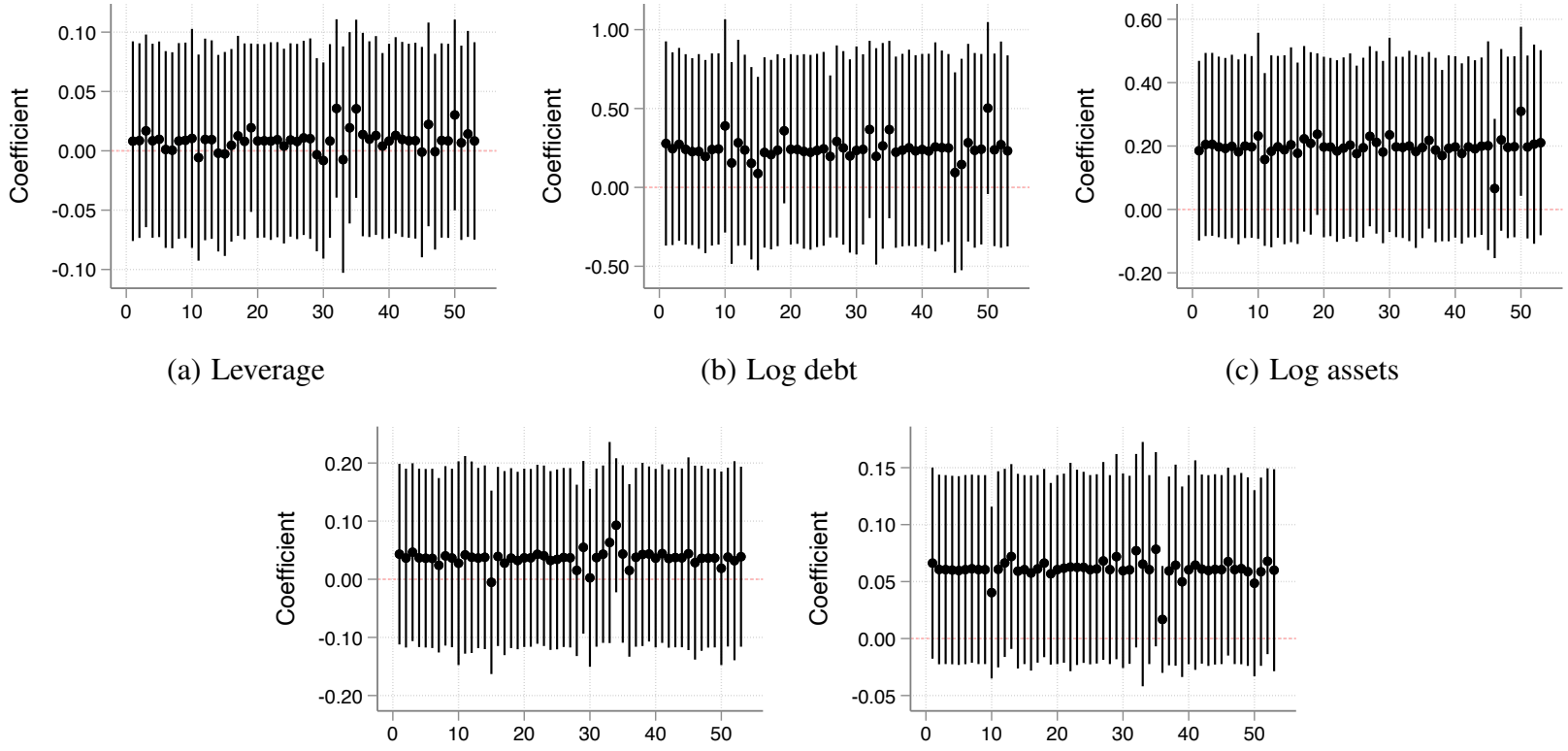


(a) All international, with controls (b) International non-U.S., with controls (c) U.S. banks, with controls

(d) All international, no controls (e) International non-U.S., no controls (f) U.S. banks, no controls

Notes: Each panel checks the robustness of results for a different dependent variable. Estimates are presented as black dots and vertical lines denote 95 percent confidence intervals. Each estimate comes from a different estimation of equation (2) dropping a single firm from the sample. The firm excluded from the sample is indexed by the x-axis. More details in section 5.4.

Figure A.8: Robustness, excluding single firms from the estimation, firm-level results

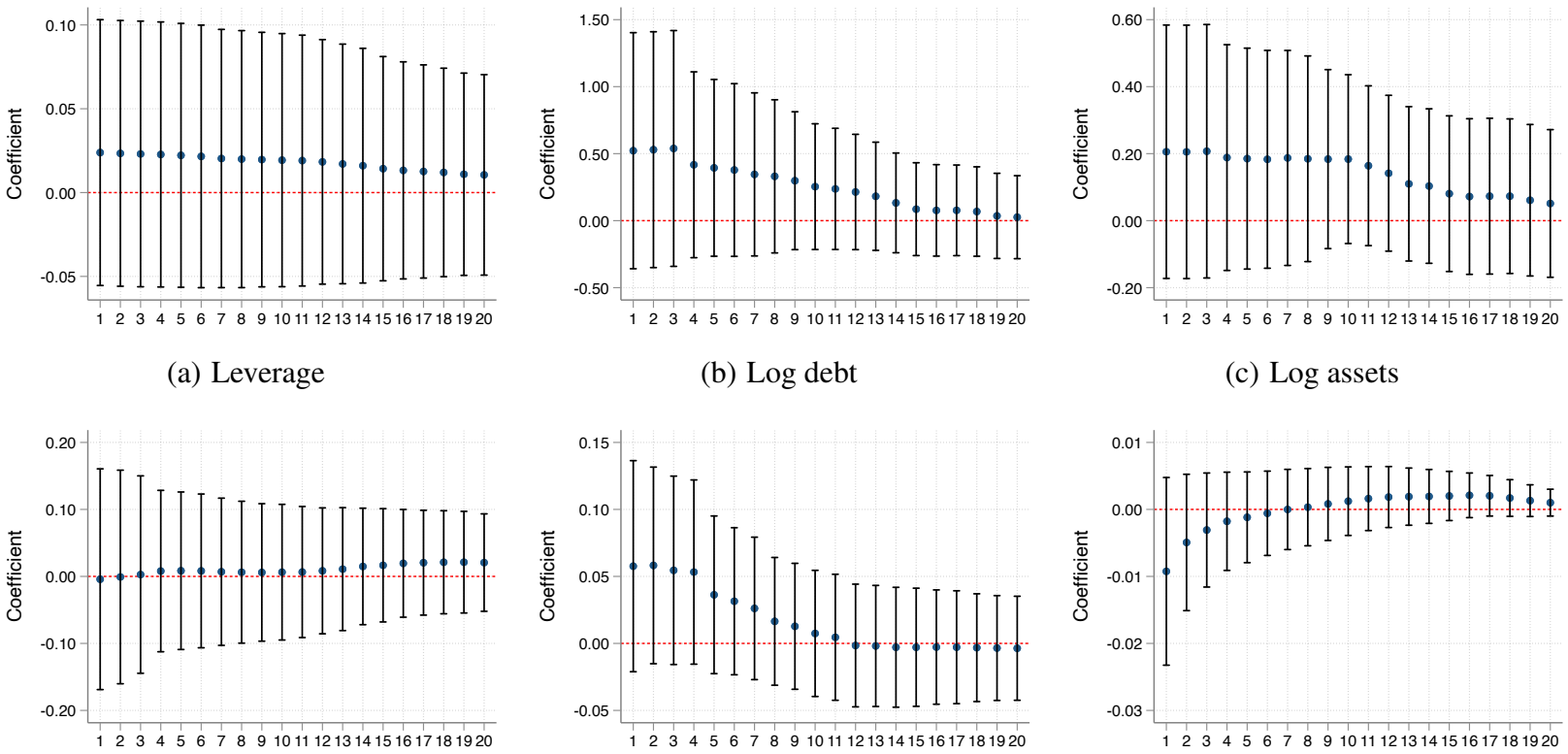


(a) Leverage (b) Log debt (c) Log assets

(d) Sales over assets (e) Return over assets

Notes: Each panel checks the robustness of results for a different dependent variable. Estimates are presented as black dots and vertical lines denote 95 percent confidence intervals. Each estimate comes from a different estimation of equation (2) dropping a single firm from the sample. The firm excluded from the sample is indexed by the *x*-axis. More details in section 5.4.

Figure A.9: Assessment of outliers in firm-level results



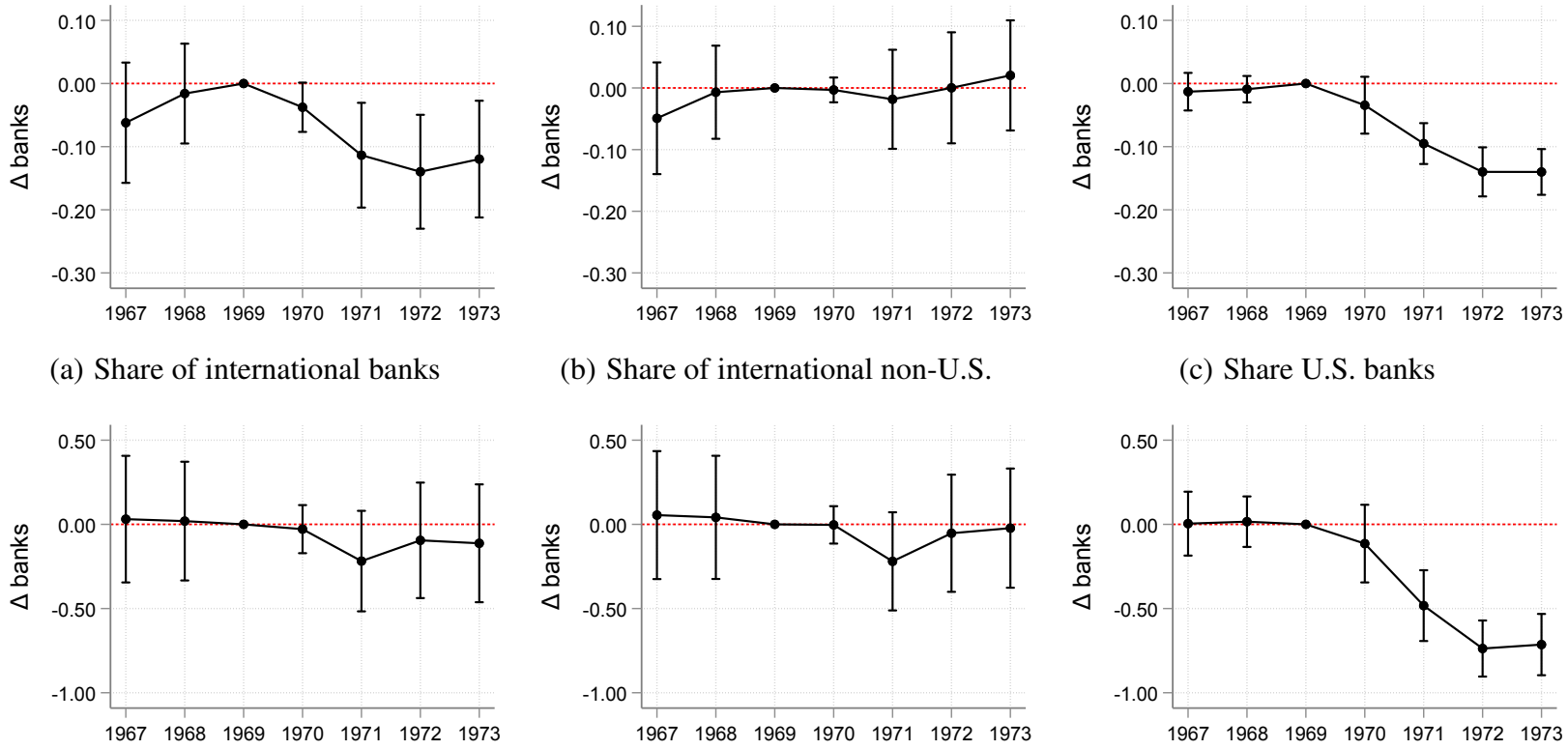
(a) Leverage (b) Log debt (c) Log assets

(d) Sales over assets (e) Return over assets (f) Stock prices, 1970-73

x

Notes: These figures assess the influence of outliers on firm-level results in Table 4. The dots in all panels represent estimates of β in equation (2) and the vertical line denotes the 95 percent confidence interval. The y-axis is always the point estimate and the x-axis measures a different winsorizing level of the corresponding outcome. For example, a value of 10 in the x-axis means that we have winsorized the dependent variable at the 10 percent of the distribution. All figures show convergence of estimates towards more precisely estimated zeros when we replace influential values by less influential ones. These results imply that outliers are unlikely to be the main explanation behind the null effects we find.

Figure A.10: Robustness, firm-bank relationships

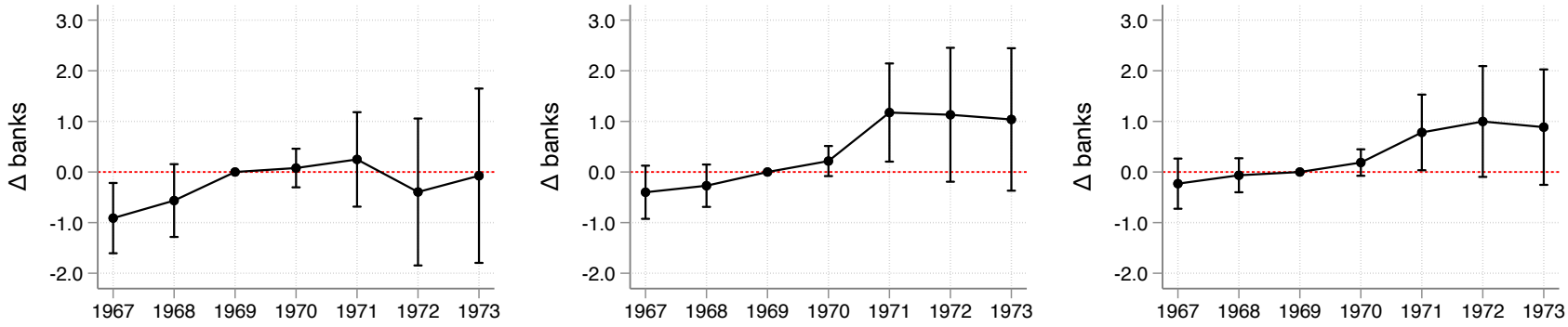


(a) Share of international banks (b) Share of international non-U.S. (c) Share U.S. banks

(d) Any international bank (e) Any international non-U.S. (f) Any U.S. bank

Notes: These figures show the change in firm-bank relationships before and after socialist Salvador Allende rose to power in 1970. In particular, we present difference-in-differences estimates of equation (1) using firm-level data for the 1967-1973 period. The omitted category is the indicator for firms with U.S. links in 1967-69. The dependent variable in panels (a) through (c) is the number of bank relationships of certain type (e.g. international) over all bank relationships and an indicator for any relationship of that type in panels (d) through (f). The *y*-axis presents the coefficient and thus the change in bank-relationships. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. U.S. and non-U.S. banks are mutually exclusive categories which added up constitute "All international banks." More details in section 5.4.

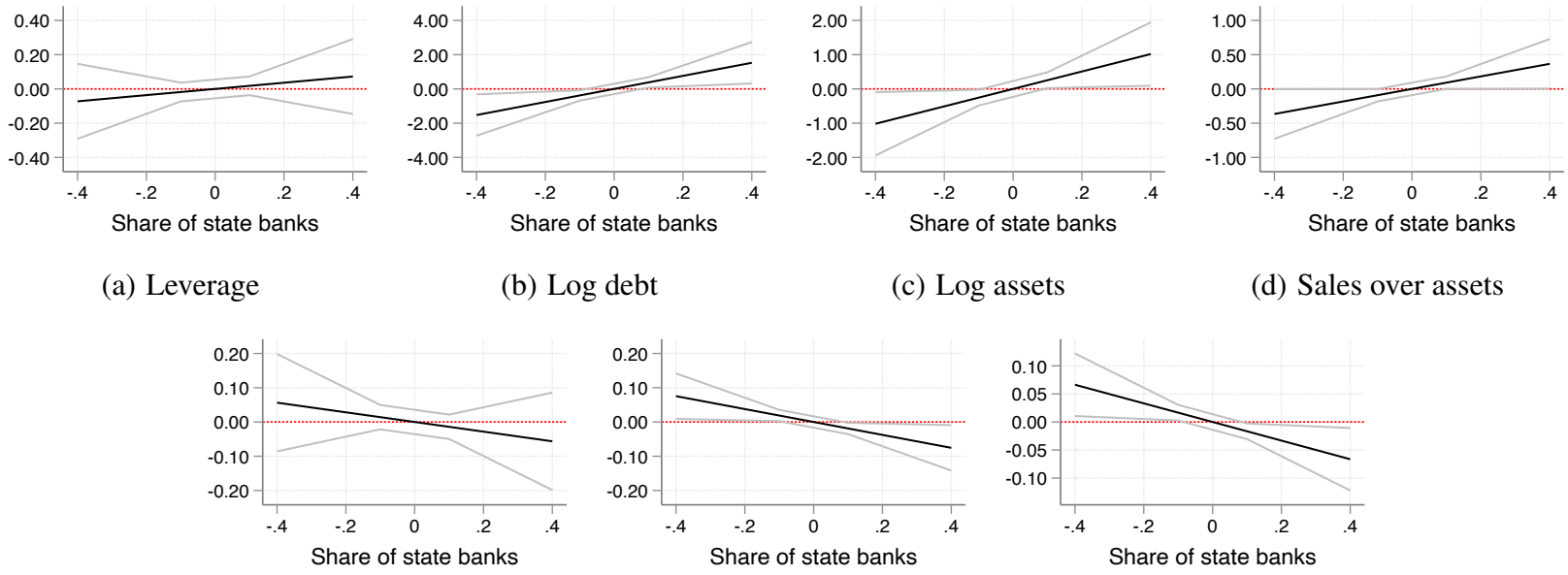
Figure A.11: Creation of bank relationships



(a) All banks (b) All domestic banks (c) State-owned banks

Notes: These figures show the change in firm-bank relationships before and after socialist Salvador Allende rose to power in 1970. In particular, we present difference-in-differences estimates of equation (1) using firm-level data for the 1967-1973 period. The omitted category is the indicator for firms with U.S. links in 1967-69. The dependent variable is always the number of bank relationships as revealed by the business reports. The *y*-axis presents the coefficient and thus the change in the number of bank-relationships. Point estimates are presented as black dots and vertical black lines represent 95% confidence intervals. More details in section 6.2.

Figure A.12: Margin graphs



(a) Leverage (b) Log debt (c) Log assets (d) Sales over assets

(e) Return over assets (f) Stock returns 1970-71 (g) Stock returns 1970-73

Notes: These figures present heterogeneous impacts of the destruction of links with U.S. banks on our seven outcomes of firm performance. The solid black lines represents the estimate and the gray lines the 95 percent confidence interval. The corresponding regression coefficients and clustered standard errors are presented in Table 7.

Table A.1: Banks by nationality

Bank type	Banks
National	Banco de Chile, Banco del Estado, Banco Edwards, Banco de Créditos e Inversiones, Banco Español-Chile, Banco Comercial de Curicó, Banco O'Higgins, Banco de Concepción, Banco Nacional del Trabajo, Banco Osorno y la Unión, Banco de Talca, Banco Industrial y Comercial, Banco Israelita, Banco de Valdivia, Banco Chillán, Banco Sur, Banco, de Llanquihue, Banco Central de Chile, Banco Chileno-Yugoslavo, Banco Regional de Linares
United States	First National City Bank, Continental Bank, Bank of America, Marine Midland Bank, New York Bank, Republic National Bank, Manufacturers Hanover Trust Co.
European	Banco Frances e Italiano de la America del Sud, Banco de Londres y America del Sud Ltdo., Lloyd & Bolsa International Bank, Banco Italiano, London Bank
Other	Banco Panamericano, Banco do Brasil, Banco Sud Americano

Notes: Own classification based on firm-level reports and the work of Behrens (1985). More details in section 3.1.

Table A.2: Descriptive statistics, additional statistics in 1967-69

			Percentiles				
	Mean	St. Dev.	25th	50th	75th	Min	Max
A. Firm characteristics	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log assets	16.57	2.75	15.70	17.28	17.80	0.00	21.64
Log fixed assets	16.02	2.86	14.60	16.75	17.48	0.00	21.81
Sales over assets	0.67	0.47	0.30	0.65	0.93	0.01	2.84
Log debt	15.14	3.25	14.58	16.12	17.01	0.00	19.48
Leverage	0.36	0.18	0.24	0.37	0.49	0.00	0.74
Financial expenses	0.05	0.04	0.02	0.04	0.07	0.00	0.22
Indicator exporter	0.29	0.46	0.00	0.00	1.00	0.00	1.00
Indicator importer	0.45	0.50	0.00	0.00	1.00	0.00	1.00
Sector: Primary	0.19	0.40	0.00	0.00	0.00	0.00	1.00
Sector: Secondary	0.56	0.50	0.00	1.00	1.00	0.00	1.00
Sector: Tertiary	0.25	0.44	0.00	0.00	0.50	0.00	1.00
B. Bank relationships							
National baks	4.29	2.43	3.00	4.00	5.67	0.00	14.00
International banks	1.18	1.08	0.00	1.00	2.00	0.00	4.00
Any national bank	0.85	0.25	0.71	1.00	1.00	0.00	1.00
Any international bank	0.57	0.42	0.00	0.67	1.00	0.00	1.00
Share national banks	0.82	0.14	0.70	0.83	1.00	0.50	1.00
Share international banks	0.18	0.14	0.00	0.17	0.30	0.00	0.50
Firms	68						

Notes: This table presents additional descriptive statistics for all 68 firms in 1967-69. Besides the means and standard deviations, already presented in Table 1, we also present percentiles and minimum/maximum values for each variable used throughout the analysis in the paper. Figure A.2 presents the full distribution of all continuous variables.

Table A.3: Comparison of firms

	Our sample of firms in 1967-1969		Chilean listed firms in 1990-2017		Firms in the S&P500 in 2022	
	Mean	St. Dev	Mean	St. Dev	Mean	St. Dev
A. Firm characteristics	(1)	(2)	(3)	(4)	(5)	(6)
Log assets	16.57	2.75	20.32	1.99	24.11	1.30
Log fixed assets	16.02	2.86	19.70	2.21	22.09	1.62
Sales over assets	0.67	0.47	0.62	0.55	0.68	0.61
Log debt	15.14	3.25	19.22	2.58	22.74	1.45
Leverage	0.36	0.18	0.23	0.19	0.34	0.26
Firms	68		158		500	

Notes: This table offers a comparison of standard balance sheet variables across three sets of firms. Odd columns present averages across firms and even columns present the standard deviation.

Table A.4: Attrition in firm-bank data

	Attrition			
	(1)	(2)	(3)	(4)
US bank (1967-70)	0.05			
	(0.06)			
Link to U.S. bank × Allende		0.06	0.02	-0.02
		(0.11)	(0.12)	(0.13)
Observations	346	346	346	346
Firms	53	53	53	53
R-squared	0.052	0.476	0.512	0.533
Firm fixed effects	No	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry-Allende fixed effects	No	No	Yes	Yes
Controls-Allende fixed effects	No	No	No	Yes
Avg dependent variable	0.139	0.139	0.139	0.139

Notes: Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 5.1.

Table A.5: Industry-by-region outcomes, 1968-1973

	Ln employment	Ln value added	Ln value added per employee	Ln value added over payroll	Ln payroll per employee
	(1)	(2)	(3)	(4)	(5)
Link to U.S bank × Allende's term	-0.08	-0.12	-0.07	-0.00	-0.06
	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)
Observations	401	401	401	401	401
Industry-region fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Avg. dependent variable	6.915	21.16	14.33	1.384	12.94

Notes: This table shows the evolution of industry outcomes. US Bank is a dummy that takes the value one if at least one firm in the industry-region had a relationship with a U.S. bank between 1967 and 1969. Post is a dummy that takes the value one from 1970 onwards. Robust standard errors clustered at the industry-region level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 5.3.

Table A.6: Robustness, bias from hypothesized linear pre-trend

	(1) Estimate	(2) Slope	(3) Unconditional bias	(4) Conditional bias
All international banks	-1.10	0.22	0.57	0.61
International non-U.S.	-0.19	0.17	0.43	0.49
U.S. banks	-0.91	0.10	0.26	0.25
Leverage	0.02	0.03	0.07	0.07
Log debt	0.52	0.42	1.04	1.05
Log assets	0.21	0.07	0.16	0.16
Sales over assets	-0.00	0.06	0.15	0.15
Return over assets	0.06	0.02	0.05	0.07

Notes: This table presents the estimated parameter from our baseline specification in Tables 2 and 4, and the main estimates based on Roth (2022). In column 2, we present the pre-trend that has a 50% power of being detected given the precision of the estimates in the pre-period. In column 3, we present the average bias suggested by this trend, while in column 4, the bias from the adjusted pre-trend that takes into account the pre-testing bias that arises from the fact that the analysis shown is conditional on passing a pre-test. More details in section 5.4.

Table A.7: Robustness, firm-bank relationships

	Share of...			Any...		
	international banks	international non-U.S.	U.S. banks	international banks	international non-U.S.	U.S. banks
	(1)	(2)	(3)	(4)	(5)	(6)
Link to U.S. bank × Allende's term	-0.10***	0.01	-0.11***	-0.15	-0.12	-0.63***
	(0.03)	(0.04)	(0.01)	(0.15)	(0.15)	(0.07)
Observations	305	305	305	361	361	361
Firms	52	52	52	53	53	53
R-squared	0.843	0.785	0.888	0.549	0.599	0.716
Firm fixed effects	X	X	X	X	X	X
Year fixed effects	X	X	X	X	X	X
Industry-Allende fixed effects	X	X	X	X	X	X
Avg. dependent variable	0.36	0.19	0.16	0.83	0.73	0.67

Notes: This table presents estimates of different specifications of equation (2) using the annual panel of firms. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 5.3.

Table A.8: The importance of previous relationships with state-owned banks

	Leverage	Logarithm debt	Logarithm assets	Sales over assets	Returns over assets	Weekly stock returns	
						1970-71	1970-73
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Link to U.S. bank × Allende [α]	-0.03	-0.47	-0.11	-0.09	0.08	0.02*	0.02**
	(0.06)	(0.48)	(0.20)	(0.13)	(0.05)	(0.01)	(0.01)
× Share state-owned banks [β]	0.18	2.44	1.99**	0.92**	0.11	-0.20***	-0.18***
	(0.27)	(1.55)	(0.86)	(0.45)	(0.20)	(0.05)	(0.04)
Allende × Share state-owned banks	-0.19	-3.43***	-1.60**	-0.65	0.08	0.17***	0.15***
	(0.22)	(1.22)	(0.76)	(0.40)	(0.15)	(0.05)	(0.04)
Test: $-0.2 \times \beta$	-0.04	-0.49	-0.40**	-0.19**	-0.02	0.04***	0.04***
	(0.05)	(0.31)	(0.17)	(0.09)	(0.04)	(0.01)	(0.01)
Observations	344	344	346	346	268	2,394	6,686
Firms	53	53	53	53	44	39	41
Firm fixed effects	X	X	X	X	X	X	X
Year (week) fixed effects	X	X	X	X	X	X	X
Industry × Allende fixed effects	X	X	X	X	X	X	X
Controls × Allende fixed effects	X	X	X	X	X	X	X
Avg. dependent variable	0.37	15.73	17.09	0.68	0.19	-0.02	-0.02

Notes: Regression estimates of an augmented version equation (3) which includes control variables interacted with Allende's term. The "Share state-owned banks 1969" (N_i) is the share of (soon to be) state-owned banks in the firm i's bank portfolio in 1969. This is, if firm k has three bank relations in 1969, but only one of the two domestic banks in k's portfolio will be nationalized by Allende, then $N_k = 0.33$. To facilitate the interpretation of coefficients, we include N_i in deviations from the mean, i.e. $(N_i - \overline{N}_{1969})$ where $\overline{N}_{1969} = 0.44$. The main parameter of interest is β and measures the differential impact of fewer relations with U.S. banks on firms with different shares of N_i. Robust standard errors clustered at the firm level are presented in parenthesis. *** p<0.01, ** p<0.05, * p<0.1. More details in section 6.

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