Explorations in Economic History 65 (2017) 36–54

Contents lists available at ScienceDirect

Explorations in Economic History

journal homepage: www.elsevier.com/locate/eeh

Protecting the borrower: An experiment in colonial India ☆

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ARTICLE INFO

Article history:
Received 3 March 2016
Received in revised form
16 June 2016
Accepted 8 July 2016
Available online 12 July 2016

Keywords:
India
Credit markets
Regulation
Agriculture

ABSTRACT

We study the impact of the Deccan Agriculturists' Relief Act (DARA), a key legislation to protect debtors that was enacted in western colonial India. Using a panel dataset and a difference-in-difference estimation, we find a substantial short-run decline in mortgage-backed credit after the passage of DARA. The contraction in credit did not reduce cropped area or agricultural investments in bullocks and carts, but may have led to less intensive cultivation.

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1. Introduction

Researchers and policy-makers have long recognized the need to regulate credit markets, which when left to themselves can generate sub-optimal outcomes for a range of reasons. Lenders may restrict credit to borrowers who lack collateral because they cannot observe their actions or their types.[1] When legal systems are weak, lenders may also fear strategic default, i.e. situations in which borrowers do not repay, though they can. Borrowers may need protection too. Absent bankruptcy law, risk-averse low-income borrowers may not borrow for sound projects. Lenders may not practice due diligence and may give loans to potentially unproductive borrowers, or may even be predatory, deliberately deceiving them.[2] It is difficult to design rules to address all these concerns.[3]

This paper provides a historical perspective on these issues by studying the Dekhan Agriculturists Relief Act (DARA), a landmark credit market legislation passed in late 19th century western India. DARA is an important case study for three

☆ We thank the participants at Williams College, the LACDEV (2013) conference, the London School of Economics, University of California at Irvine, the Economic History Society Conference (2014), the All-UC Economic History Conference (2014), the Economic History Association Meetings (2014), Brandeis University, and Yale University for their helpful suggestions. Three anonymous referees and the editor of this journal also provided valuable comments. We are also grateful to Dan Bogart, Steve Nafziger and Tirthankar Roy for their useful comments. Finally, we thank Shameel Ahmad for sharing vital statistics data for Bombay Presidency. The usual disclaimer applies. The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

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[1] Stiglitz and Weiss (1981) is a classic paper on the topic.

[2] See, for instance, Manove et al. (2001).

[3] For example, Barth et al. (2012) highlight the problem of regulation in contemporary United States. Calomiris and Haber (2014) study the evolution of banking institutions in Brazil, Britain, Canada, Mexico, and the United States. They discuss the role of regulation and how the interaction between political and banking institutions can co-opt regulation. In the historical context, Temin and Voth (2013) study usury laws, a form of credit market regulation to protect borrowers from high interest rates, and how they reduced credit in England.

http://dx.doi.org/10.1016/j.eeh.2016.07.004
0014-4983/Published by Elsevier Inc.

reasons. First, DARA was the first major policy designed to better regulate credit markets in colonial India. It heavily influenced similar laws passed in other parts of India in the 20th century.[4] Indeed, specific provisions of DARA, and certainly its spirit, have survived into 21st century India (Swamy, 2016). Second, there is an abundance of qualitative evidence on DARA allowing us to piece together the history leading up to the legislation and contemporary discussion on its impact. Third and finally, we have put together a detailed district-level dataset for twenty years straddling the legislation that allows us to evaluate the impact of DARA on credit market and agricultural outcomes. There is, as far as we know, no other such statistical work on credit markets in colonial India.

In the early 19th century, the British introduced fundamental changes in law and property rights in western India making it easier for creditors to recover their money in the event of default by borrowers. These changes expanded credit markets and led to some economic growth. But, by the 1850s British officials became concerned that predatory lenders were using the courts to expropriate land from uneducated peasants. A strong impetus to enact legislation came in 1875 when peasants rioted and attacked immigrant lenders in four districts in the Deccan (also known as Dekhan) region of the Bombay Presidency.[5] DARA was passed soon after in 1879 in the four districts where the riots occurred. It was subsequently expanded to districts in the Sind division (now in Pakistan) in 1901 and to the remaining fourteen districts of Bombay Presidency in 1905. We refer to these three regions as early-DARA, Sind, and late-DARA, respectively.

DARA's main goal was to slow down what colonial authorities perceived was a large-scale transfer of land from peasants to moneylenders. To this end the Act strengthened the legal position of borrowers in credit disputes. The most important provision of DARA allowed judges to go “behind the bond”, i.e., to investigate the history of transactions and award the creditor less than the amount to which he was formally entitled on paper. This could reduce the amount of payment and delay payment to the creditor. Our reading of the historical documents suggests that judges did in fact reduce interest rates and repayments.

In our empirical analysis we study whether the extensions of DARA in 1901 and 1905 influenced credit and agricultural outcomes. We focus on the 1901 and 1905 extensions as opposed to the initial passage of the law in 1879 because detailed information on most outcomes was not collected until the 1890s. Using annual *Reports on the Administration of the Registration Department* and the *Agricultural Statistics of British India* among other data sources, we construct a new dataset on the 21 districts of Bombay Presidency from 1896 to 1916 including all the districts in early-DARA, Sind and late-DARA.[6] The data include registered mortgages and sales of land, total area under cultivation, livestock, ploughs, carts, population and rainfall. Together they provide a detailed picture of local economic conditions over twenty years.

Using these data, we estimate regressions where the dependent variables are, first, the amount of credit, and second, the economic variables – acreage, livestock, and carts. Our independent variables are population, rainfall and their respective squared terms (to account for non-linear relationships). We present the results for different samples: districts in all three regions; Sind and late-DARA districts; early-DARA and late-DARA; and early-DARA and Sind. We use a difference-in-difference setup for these four samples, exploiting the variation in the passage of DARA within districts over time. We also present simple before-after regressions studying late-DARA and Sind districts separately. Our preferred specification includes districts from Sind and late-DARA regions because we can exploit the variation in the passage of DARA in a standard difference-in-difference estimation. The analysis in which we include the early-DARA districts is non-standard, because DARA is in place in those districts throughout the period for which we have data.

Our main variable of interest is an indicator for DARA that takes the value 1 when the law is in place and 0 otherwise. The indicator is always 1 for districts where the law was initially enacted in 1879 (early-DARA). It turns from 0 to 1 in 1902 in the Sind districts (where the law was passed in 1901) and in 1906 in the late-DARA districts (where the law was enacted in 1905). We chose to turn on the DARA indicator the year after its introduction in order to allow for lags in implementation. If anything, this weakens our results because the effect of DARA seems to have been immediate. We also include district fixed effects to account for unobservable and time invariant district characteristics; year fixed effects to account for common macroeconomic shocks, and district specific time trends to account for unobservable district specific factors trending up or down that may bias the estimates on the DARA dummy.[7]

In line with expectations of British officials, and their subsequent commentary, we find DARA contracted formal credit. Registered mortgages declined after the legislation. The decline ranges from 25 to 40% across the range of specifications. We subject the finding on mortgage credit, which is central to this paper, to a series of robustness checks. As noted above, our preferred specification is the difference-in-difference with the two regions (late-DARA and Sind), but we find similar results using three regions (early-DARA, late-DARA and Sind) as well as simple before-and-after comparisons within late-DARA and Sind separately. We also change our dependent variable to mortgages per capita and cumulative borrowing over three years. The decline in mortgages appears to be robust.

We might expect that the credit market would eventually adjust to the new legal environment, perhaps with a change in the mix of lenders. Historians and official colonial commentary on DARA both allude to DARA shifting the mix of lenders to

[4] See Sivaswamy (1939).

[5] The Bombay Deccan refers to a division of Bombay Presidency comprising six districts. A province/presidency in colonial India comprised several divisions, which in turn had several districts. The remaining divisions of Bombay Presidency were Gujarat, Konkan, Karnatak, and Sind.

[6] The number of districts in Sind varied over time, as districts were reorganized. As we describe below, we construct three “super-districts” with unchanging boundaries, and follow them over time. Please see the map in Fig. 3 for a visual picture of these regions.

[7] The district fixed effect absorbs the DARA dummy in the districts where it always takes the value 1.