

## ONLINE APPENDIX

**Appendix Table 1.** Probit model tests for instrument validity, 1983 to 2000, India.

	<i>Dummy for those who are illiterate</i>	<i>Dummy for those with primary education</i>	<i>Dummy for those with post primary education</i>	<i>Dummy for those who own land</i>	<i>Dummy for members of Scheduled Tribe</i>	<i>Dummy for those who are Hindu</i>
Number of bank branches per capita in 1961*(1961-2000) trend	-0.096 <sup>***</sup> (0.012)	0.082 <sup>***</sup> (0.008)	0.067 <sup>***</sup> (0.008)	-0.015 (0.019)	-0.092 <sup>***</sup> (0.033)	-0.021 (0.014)
Number of bank branches per capita in 1961*(1977-2000) trend	0.101 <sup>***</sup> (0.015)	-0.096 <sup>***</sup> (0.010)	-0.070 <sup>***</sup> (0.009)	0.017 (0.018)	0.074 <sup>*</sup> (0.042)	0.029 (0.022)
Number of bank branches per capita in 1961*(1990-2000) trend	-0.003 (0.013)	0.004 (0.012)	0.000 (0.009)	0.009 (0.022)	-0.001 (0.027)	-0.011 (0.014)
Post-1989 dummy*(1990-2000) Trend	-0.049 (0.071)	-0.097 <sup>*</sup> (0.050)	0.180 <sup>***</sup> (0.049)	-0.052 (0.130)	0.251 <sup>*</sup> (0.140)	-0.027 (0.077)
State and year dummies	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES
<i>F</i> -test 1	0.310 [0.576]	2.540 [0.111]	0.840 [0.358]	0.030 [0.873]	1.780 [0.182]	0.610 [0.435]
<i>F</i> -test 2	0.010 [0.916]	1.300 [0.254]	0.300 [0.585]	0.160 [0.689]	0.760 [0.383]	0.110 [0.744]

**Notes:** Sample size = 408,385. Standard errors clustered by state are in parentheses and *p*-values are in square brackets. *F*-test 1 and *F*-test 2 are the joint significance tests for coefficients in the first two rows and the first three rows, respectively. Independent variables include the interaction of a post-1976 dummy with a post-1976 time trend, but this variable is dropped from models due to collinearity. Other controls include state population density, log state income per capita, and log rural locations per capita, each in 1961, and each interacted with a time trend, a post-1976 time trend, and a post-1989 time trend. The notation <sup>\*\*\*</sup> is statistically significant at 1%, <sup>\*\*</sup> at 5%, and <sup>\*</sup> at 10%.

**Source:** Authors' calculations based on NSSO (various years).

**Appendix Table 2.** Naïve probit estimates for impact of household loan activity on self-employment decisions, 1983 to 2000, India.

	<i>Self-employed: total</i>	<i>Self-employed: own-account workers</i>	<i>Self-employed: unpaid family workers</i>
<b>Men</b>			
Total Loan	0.020 <sup>***</sup> (0.001)	0.016 <sup>***</sup> (0.002)	0.002 <sup>***</sup> (0.000)
Formal Loan	0.031 <sup>***</sup> (0.006)	0.024 <sup>***</sup> (0.004)	0.003 <sup>***</sup> (0.001)
Informal Loan	0.015 <sup>***</sup> (0.003)	0.012 <sup>***</sup> (0.003)	0.002 <sup>***</sup> (0.000)
Production Loan	0.040 <sup>***</sup> (0.005)	0.032 <sup>***</sup> (0.004)	0.003 <sup>***</sup> (0.001)
<b>Women</b>			
Total Loan	0.022 <sup>***</sup> (0.003)	0.013 <sup>***</sup> (0.002)	0.008 <sup>***</sup> (0.001)
Formal Loan	0.026 <sup>***</sup> (0.003)	0.014 <sup>***</sup> (0.002)	0.009 <sup>***</sup> (0.003)
Informal Loan	0.023 <sup>***</sup> (0.004)	0.013 <sup>***</sup> (0.002)	0.008 <sup>***</sup> (0.001)
Production Loan	0.034 <sup>***</sup> (0.002)	0.017 <sup>***</sup> (0.001)	0.013 <sup>***</sup> (0.002)

**Notes:** Sample size = 231,013 for men and 177,372 for women. Standard errors clustered by state are in parentheses. Each marginal probability estimate is obtained from a separate probit regression that includes the full set of individual and household characteristics listed in Tables 2 and 3 along with year dummies. The notation <sup>\*\*\*</sup> is statistically significant at 1%, <sup>\*\*</sup> at 5%, and <sup>\*</sup> at 10%.

**Source:** Authors' calculations based on NSSO (various years).

#### *Discussion of Household Loan Activity and “Naïve” Probits*

In Appendix Table 2, each reported coefficient and standard error is obtained from a separate probit estimation. We refer to these as the “naïve” probits as they do not instrument for household loans. Results for men indicate that total loans, formal loans, informal loans, and loans taken for production purposes all have strong positive effects on self-employment. Such effects persist when self-employment is disaggregated into its components of own-account

workers and unpaid family workers, although magnitudes are in general larger for own-account workers. Results for women mirror those for men, with the magnitudes of the loan coefficients again larger for own-account workers compared to unpaid family workers. The repercussions of India's rural bank expansion program are expected to appear in the formal loan category; the naïve estimates suggest that the bank expansion had slightly bigger marginal effects on male self-employed as compared to female self-employed workers. However, these implications change when household loans are treated endogenously, as demonstrated in the body of the paper.