

# Do Rural Banks Matter That Much?

Burgess and Pande (AER, 2005) Reconsidered

NINO BULISKERIA

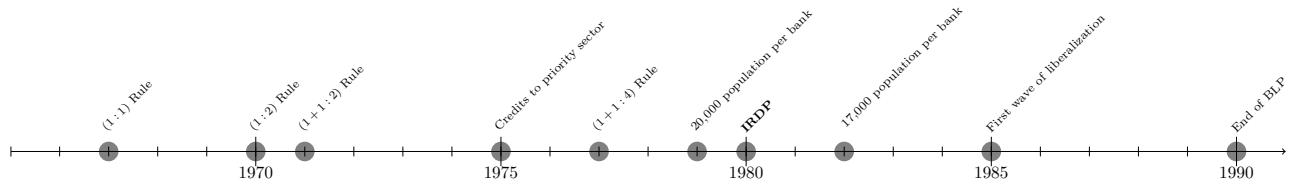
JAROMIR BAXA

November 17, 2021

## Online Appendix A

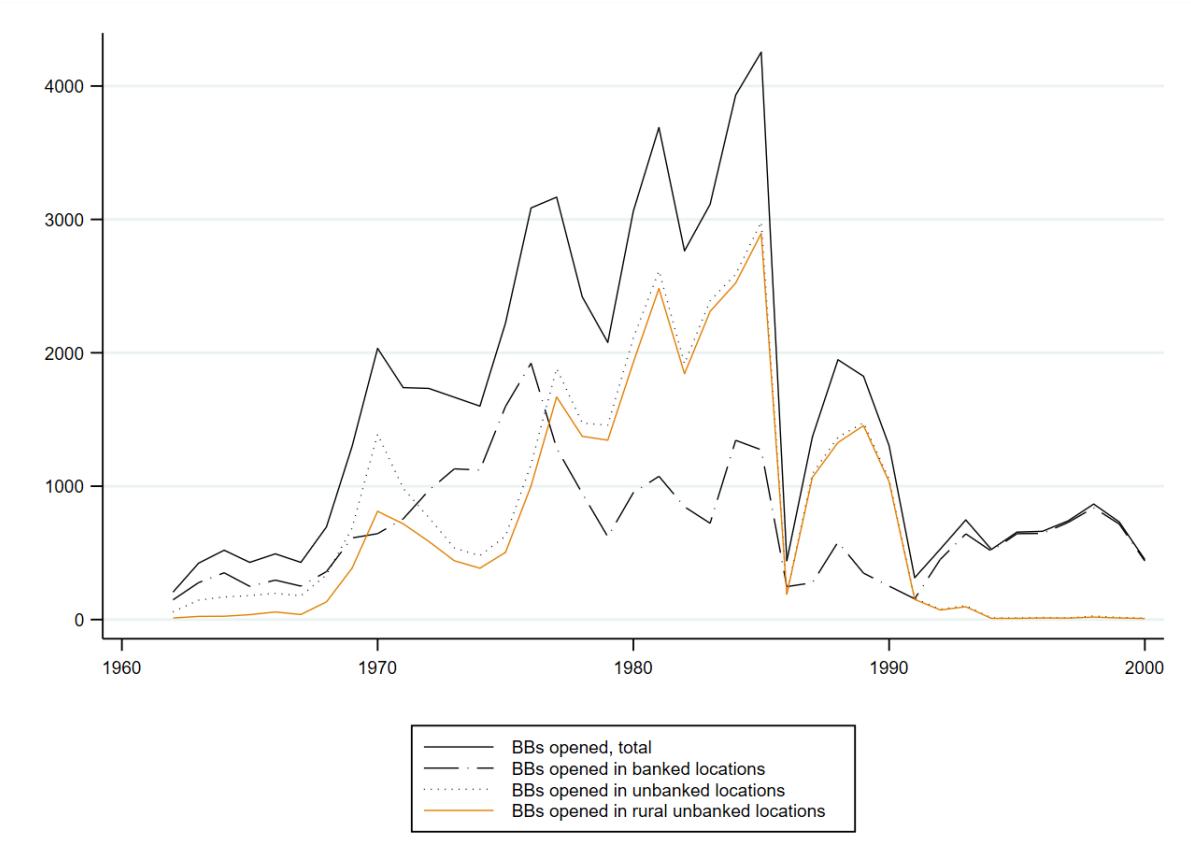
### I. Figures

Figure A1. Chronology of the Bank Licensing Policies



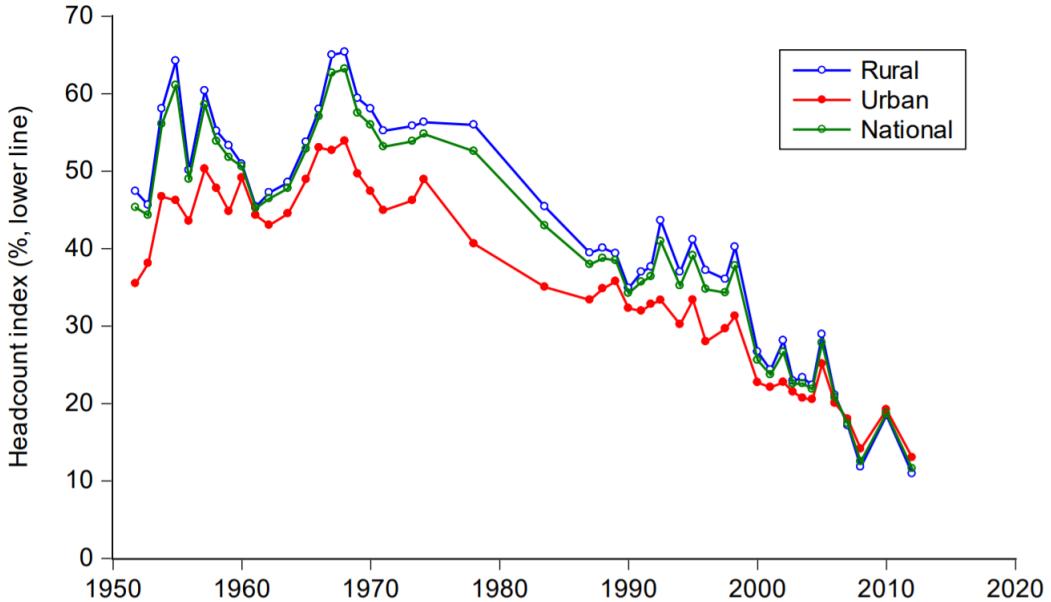
Note: The chronology of events is presented as described by Kochar (2011), Panagariya (2008) and Banerjee et al. (2004).

Figure A2. Annual Bank Branch Openings in India



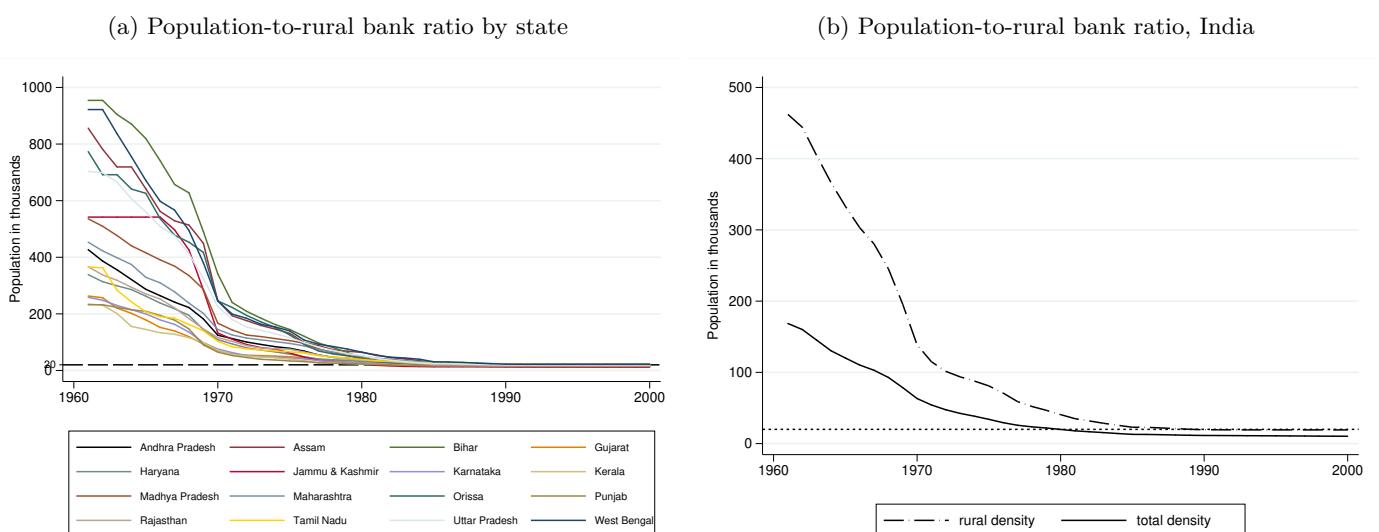
Note: This figure shows how many bank branches (BBs) were opened in India each year, further distinguishing between openings in banked locations (dot-dashed line), unbanked location (dotted line), and rural unbanked locations (orange line).

Figure A3. Evolution of Indian Poverty



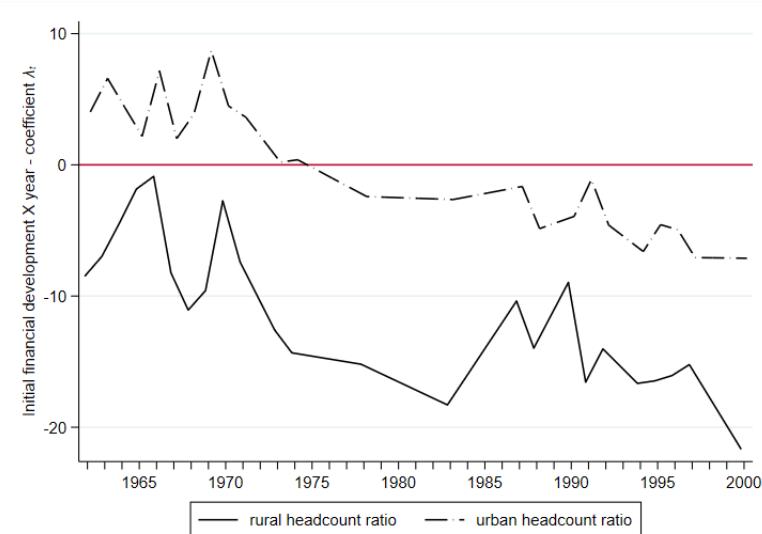
Note: Decrease of rural poverty in India accelerated in the 1990s, after the bank expansion policy was abandoned. Note, however, that over the course of the 1970s the data on poverty are based on surveys conducted in five years intervals, so the turning points in poverty could have appeared in other years than shown in Figure A3. Source:Datt et al. (2016).

Figure A4. Population-to-rural bank ratio total for India and by state



Note: The population-to-rural bank ratio (by state and country average) significantly decreases after the 1960s and converges to around 20000 people per bank, even in rural areas before 1990. The figures were generated based on data provided by Burgess and Pande (2005)

Figure A5. Initial financial development and poverty



Note: Figure A5 graphs the impact of initial financial development  $\lambda_t$  from equation (4) in Burgess and Pande (2005) for both rural and urban poverty over the period 1961 - 2000. It shows that the initial financial development is negatively correlated to rural poverty. This figure replicates Figure 3 in Burgess and Pande (2005), p.787.

Figure A6. Initial financial development and rural branch expansion by cut-years

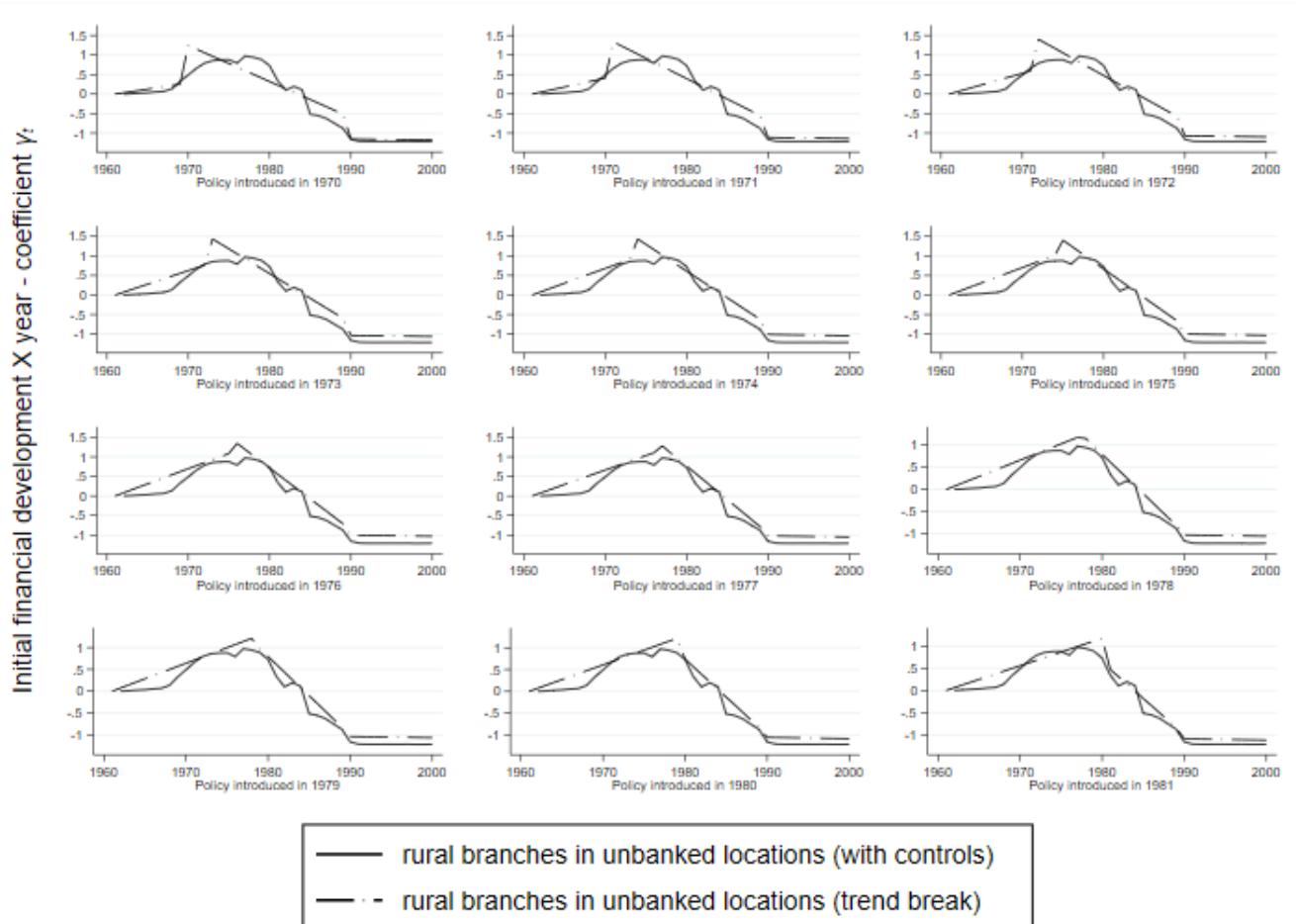


Figure A6 presents the trend reversals obtained from introducing the different hypothetical cut-years, and their fit to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005). Subfigure "Policy introduced in 1977" corresponds to Figure 1 in Burgess and Pande, 2005, p.784. Therefore, it represents the benchmark for the comparison. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from equation (1). The series "rural branches unbanked locations (trend break)," dashed line, graphs the trends obtained from equation (2); the values are reported in Table B1 and correspond to Table A1, column 1.

Figure A7. Initial financial development and rural branch expansion with additional cut-year to the one in 1977

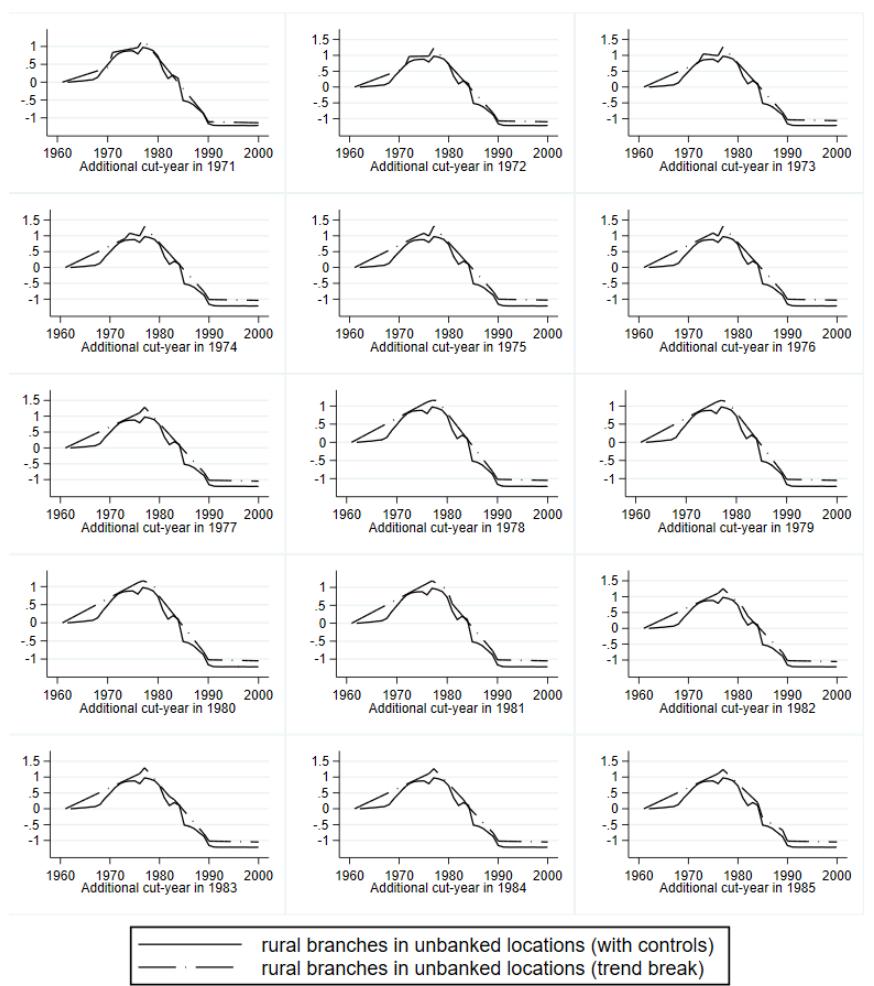


Figure A7 presents the trend reversals obtained from introducing the different hypothetical cut-years in addition to the one in 1977, and their fit to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005). Subfigure "Additional cut-year in 1977" corresponds to Figure 1 in Burgess and Pande, 2005, p.784 and is the benchmark for the comparison. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from equation (1). The series "rural branches unbanked locations (trend break)," dashed line, graphs the trends obtained from equation (2); the values are reported in Table C1 and correspond to Table A1, column 1.

Figure A8. Initial financial development and rural branch expansion with additional cut-year to 1977

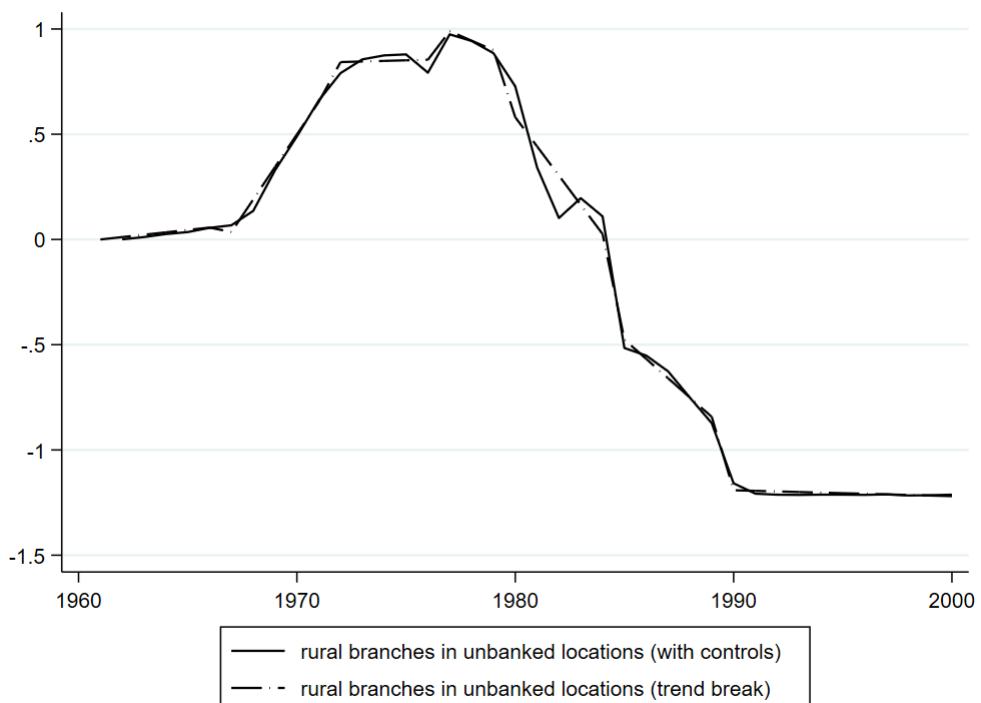


Figure A8 presents the trend reversals obtained from introducing the different hypothetical cut-years, and their fit to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005). Subfigure "Policy introduced in 1977" corresponds to Figure 1 in Burgess and Pande (2005), p.784. Therefore, it represents the benchmark for the comparison. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from the equation (1). The series "rural branches in unbanked locations (trend break)" graphs the trends obtained from equation (2) and correspond to Table (1), column (1).

## II. Replicated Tables

Table A1. Banking as a function of initial financial development

	Branches in rural unbanked locations	Rural bank		Branches in banked locations	Credit share	
		Credit share	Savings share		Priority sector	Cooperative
	(1)	(2)	(3)	(4)	(5)	(6)
Number of bank branches per capita in 1961*(1961–2000) trend	0.07** (0.028)	0.18 (0.209)	-0.03 (0.235)	0.14*** (0.012)	-0.08 (0.626)	0.42 (0.337)
Number of bank branches per capita in 1961*(1977–2000) trend	-0.25*** (0.030)	-1.09** (0.434)	-0.82*** (0.252)	-0.07*** (0.020)	0.08 (0.865)	0.02 (0.416)
Number of bank branches per capita in 1961*(1990–2000) trend	0.17*** (0.042)	0.87*** (0.263)	0.43* (0.229)	0.10** (0.041)	-0.18 (0.333)	-0.18 (1.013)
Number of bank branches per capita in 1961*Post-1976 dummy <sup>†</sup>	0.34 (0.251)	-0.30 (1.495)	-0.17 (0.777)	0.53** (0.187)	-3.37 (2.402)	-3.80 (2.237)
Number of bank branches per capita in 1961*Post-1989 dummy <sup>†</sup>	-0.24 (0.152)	1.95 (1.490)	0.44 (0.533)	-0.40*** (0.103)	-0.05 (1.858)	-3.32 (2.803)
State and year dummies	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.963	0.879	0.870	0.981	0.863	0.806
F-test 1	16.87 [0.001]	12.80 [0.003]	25.67 [0.000]	8.975 [0.009]	0.000 [0.988]	5.484 [0.033]
F-test 2	0.491 [0.494]	0.099 [0.757]	9.000 [0.009]	27.22 [0.000]	1.785 [0.201]	0.060 [0.810]
Observations	636	512	512	636	512	494

Source: This table is a replication of Table 1 in Burgess and Pande (2005), page 785. For replication we used data and methodology provided by the authors.<sup>†</sup>Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code accompanying the paper. Therefore, we have changed the variable names accordingly. Note: p-values of tests in brackets. Coefficient estimates from regressions in the form of equation (2). Other controls include state population density, log state income per capita, log rural locations per capita, all measured in 1961. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A2. Bank branch expansion and poverty: reduced form evidence

	Annual coef. rural head- count ratio	Headcount ratio			Wage	
		Rural	Urban	Aggregate	Agricultural	Factory
	(1)	(2)	(3)	(4)	(5)	(6)
Annual coefficients for branches in rural unbanked locations	-4.71*** (1.01)					
Number of bank branches per capita in 1961*(1961–2000) trend		-0.77*** (0.235)	-0.27 (0.237)	-0.71*** (0.225)	-0.00 (0.006)	0.01 (0.019)
Number of bank branches per capita in 1961*(1977–2000) trend		1.15** (0.424)	0.15 (0.257)	0.99*** (0.332)	-0.01 (0.008)	-0.01 (0.019)
Number of bank branches per capita in 1961*(1990–2000) trend		-1.15*** (0.342)	-0.31 (0.378)	-1.04*** (0.310)	0.05* (0.023)	-0.02 (0.010)
Number of bank branches per capita in 1961*Post-1976 dummy <sup>†</sup>		-3.77* (1.940)	-2.76 (2.286)	-3.53* (1.706)	0.09* (0.049)	0.04 (0.047)
Number of bank branches per capita in 1961*Post-1989 dummy <sup>†</sup>		1.20 (2.387)	0.50 (0.964)	0.62 (1.819)	-0.03 (0.054)	0.01 (0.022)
State and year dummies	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.835	0.913	0.875	0.901	0.701	
F-test 1	1.497 (0.240)	0.373 (0.551)	1.760 (0.205)	23.95 (0.000)	0.234 (0.636)	
F-test 2	2.973 (0.105)	3.948 (0.066)	4.148 (0.059)	1.884 (0.191)	6.066 (0.026)	
Observations	39	627	627	627	545	553

Source: This table is a replication of Table 2 in Burgess and Pande (2005), page 788. For replication we used data and methodology provided by the authors. <sup>†</sup> Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: p-values of tests in brackets. The first column reports the regression of the annual coefficients at the rural headcount ratio ( $\gamma_t$ , equation (1)) on the annual coefficients on initial financial development ( $\lambda_t$ , equation (3)). The other columns show estimated coefficients from regressions similar to equation (2) but with the respective headcount ratios as dependent variables. For the definition of other control variables and F-tests see Table 1. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A3. Bank branch expansion and poverty: instrumental variables evidence

	Headcount ratio										Wage				
	Rural			Urban			Aggregate			1961-1989		1977-2000		Survey years	
	OLS		IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)						
Number of bank branches opened in rural unbanked locations per capita	2.09** (0.785)	1.16 (1.024)	-4.74** (1.790)	-0.66 (1.066)	-4.10** (1.464)	-4.70** (1.821)	-4.70** (2.805)	-6.84** (2.263)	-4.21* (0.042)	0.08* (0.083)	0.05				
Number of bank branches per capita 1961*(1961–2000) trend	-0.43** (0.165)	-0.48* (0.269)	-0.26* (0.134)	-0.46* (0.226)	-0.43 (0.264)	-0.43 (0.447)	-0.80* (0.447)	-0.46 (0.281)	-0.46 (0.004)	-0.01 (0.013)	0.01				
Number of bank branches per capita in 1961*Post-1976 dummy†	-0.31 (1.229)	-1.42 (2.297)	-2.06 (1.654)	-1.39 (2.034)	-2.13 (2.587)				-1.31 (3.322)	0.04 (0.059)	0.03 (0.065)				
Number of bank branches per capita in 1961*Post-1989 dummy†	5.38** (2.468)	-1.08 (2.334)	-0.47 (1.015)	-1.55 (1.759)		-0.45 (2.903)		-0.45 (2.614)	-0.79 (2.614)	0.11 (0.068)	-0.05 (0.047)				
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES				
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES				
Overidentification test								[1]							
Adjusted R-squared	0.807	0.834	[0.99] 0.760	[0.99] 0.915	[0.99] 0.818	0.804	0.807	0.734	[0.98] 0.868	[0.99] 0.699					
Observations	627	627	627	627	627	460	375	375	545	554					

Source: This table is a replication of Table 3 in **burgess2005rural**, page 789. For replication we used data and methodology provided by the authors. † Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: The IV estimates correspond to equation (3) for different dependent variables. Other controls include state population density, log state income per capita, log rural locations per capita, all measured in 1961. The over-identification is tested using the conventional Sargan test. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A4. Rural credit and savings and poverty: instrumental variables evidence

	Headcount Ratio					
	Rural		Urban		Aggregate	
	(1)	(2)	(3)	(4)	(5)	(6)
Rural bank credit share	-1.52** (0.694)		-0.67 (0.466)		-1.37** (0.586)	
Rural bank savings share		-2.22** (0.781)		-1.05 (0.675)		-2.01*** (0.647)
Number bank branches per capita in 1961*(1961–2000) trend	-1.01* (0.496)	-1.51** (0.538)	-0.70** (0.253)	-0.96** (0.343)	-0.96** (0.406)	-1.42*** (0.437)
Number bank branches per capita in 1961*Post-1976 dummy <sup>†</sup>	-2.89 (1.681)	-2.05 (2.340)	-1.59 (1.975)	-1.23 (2.554)	-2.60 (1.677)	-1.84 (2.518)
Number bank branches per capita in 1961*Post-1989 dummy <sup>†</sup>	4.40 (2.644)	2.13 (2.653)	2.87 (2.345)	1.88 (1.310)	3.53 (2.352)	1.47 (1.975)
State and year dummies	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES
Overidentification test	[0.99]	[0.99]	[0.99]	[0.99]	[0.99]	[0.99]
Adjusted R-squared	0.686	0.602	0.903	0.879	0.746	0.669
Observations	503	503	503	503	503	503

Source: This table is a replication of Table 4 in Burgess and Pande (2005), page 791. For replication we used data and methodology provided by the authors. <sup>†</sup> Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A5. Bank branch expansion and poverty reduction: robustness checks

	Rural Headcount Ratio		Urban Headcount Ratio	
	(1)	(2)	(3)	(4)
Number branches opened in rural unbanked locations per capita	-4.12** (1.544)	-3.77** (1.544)	-1.05 (1.061)	-0.81 (0.908)
Cumulative land reform	-1.75** (0.696)	-1.87** (0.678)	0.41 (0.286)	0.27 (0.302)
Health and education spending	-10.97 (30.908)	-3.31 (28.402)	23.52 (14.531)	23.74 (14.796)
Other development spending	-40.84*** (12.394)	-37.32** (13.365)	6.31 (12.083)	5.73 (11.890)
<b>Fraction legislators from:</b>				
Congress parties		-13.07 (8.904)		0.22 (3.138)
Janata parties		-11.62 (6.899)		1.62 (3.184)
Hindu parties		6.15 (12.905)		9.61 (8.361)
Hard Left parties		-14.81 (9.074)		1.76 (3.718)
Regional parties		-15.11 (12.911)		-2.34 (4.596)
State and year dummies	YES	YES	YES	YES
Other controls	YES	YES	YES	YES
Overidentification test	[0.99]	[0.99]	[0.99]	[0.99]
Adjusted R-squared	0.802	0.816	0.915	0.916
Observations	605	603	605	603

Source: This table is a replication of Table 5 in Burgess and Pande (2005), page 792. For replication we used data and methodology provided by the authors. Note: Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## References

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# Do Rural Banks Matter That Much?

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## Online Appendix B

Replication of Burgess and Pande (2005) with different cut-year than 1977.

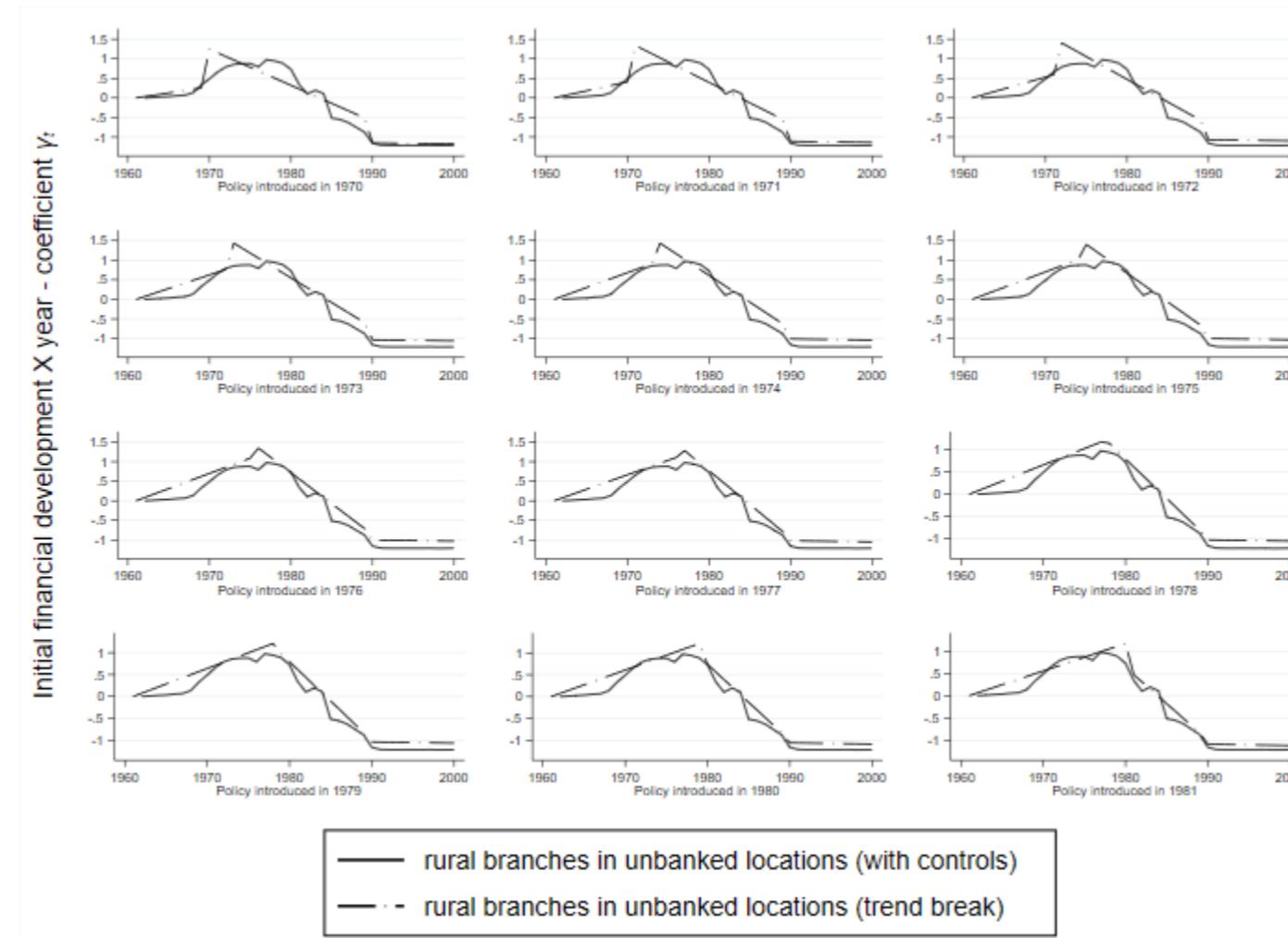


Figure presents the trend reversals obtained from introducing the different hypothetical cut-years, and their fit to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005). Subfigure "Policy introduced in 1977" corresponds to Figure 1 in Burgess and Pande (2005), p.784. Therefore, it represents the benchmark for the comparison. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from equation (1). The series "rural branches unbanked locations (trend break)," dashed line, graphs the trends obtained from equation (2); the values are reported in Table B1 and correspond to Table A1, column 1.

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**Table 1 - Banking as a function of initial financial development**

Table B1.1 – Branched in Rural Unbanked locations

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Branched in Rural Unbanked locations														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.03*** (0.012)	0.05*** (0.015)	0.06*** (0.018)	0.07*** (0.021)	0.08*** (0.024)	0.08*** (0.026)	0.08** (0.028)	0.07** (0.028)	0.07** (0.029)	0.07** (0.029)	0.07** (0.029)	0.06* (0.030)	0.05 (0.031)	0.04 (0.033)	0.03 (0.034)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	-0.13** (0.044)	-0.15*** (0.042)	-0.18*** (0.041)	-0.20*** (0.039)	-0.21*** (0.037)	-0.23*** (0.035)	-0.24*** (0.033)	-0.25*** (0.030)	-0.25*** (0.028)	-0.25*** (0.026)	-0.24*** (0.029)	-0.22*** (0.038)	-0.22*** (0.047)	-0.22*** (0.053)	-0.20*** (0.055)
Number of Bank Branches per capita in 1961 * (1990- 2000) trend	0.09* (0.042)	0.10** (0.043)	0.11** (0.042)	0.12** (0.042)	0.13*** (0.043)	0.14*** (0.043)	0.15*** (0.043)	0.17*** (0.042)	0.17*** (0.041)	0.18*** (0.039)	0.17*** (0.039)	0.16*** (0.043)	0.16*** (0.045)	0.18*** (0.045)	0.16*** (0.040)
Number of Bank Branches per capita in 1961 * Post-T dummy	1.08*** (0.147)	1.02*** (0.139)	0.92*** (0.129)	0.79*** (0.137)	0.65*** (0.148)	0.53** (0.180)	0.41* (0.218)	0.34 (0.251)	0.15 (0.262)	-0.06 (0.293)	-0.31 (0.336)	-0.54 (0.388)	-0.61 (0.353)	-0.59* (0.304)	-0.77*** (0.235)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-0.63*** (0.212)	-0.56** (0.213)	-0.50** (0.211)	-0.44** (0.205)	-0.39* (0.197)	-0.34* (0.184)	-0.29 (0.169)	-0.24 (0.152)	-0.22 (0.137)	-0.21* (0.117)	-0.23** (0.094)	-0.26*** (0.067)	-0.25*** (0.053)	-0.22*** (0.049)	-0.25*** (0.057)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.962	0.962	0.962	0.962	0.962	0.963	0.963	0.963	0.962	0.962	0.962	0.962	0.961	0.961	0.96
F-test 1	4.552 [0.0498]	5.784 [0.0295]	7.147 [0.0174]	8.518 [0.0106]	9.924 [0.0066]	11.72 [0.0038]	13.71 [0.0021]	16.87 [0.0009]	19.19 [0.0005]	22.17 [0.0003]	22.25 [0.0003]	16.78 [0.001]	15.53 [0.0013]	18.42 [0.0006]	19.07 [0.0006]
F-test 2	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]	0.491 [0.494]
Observations	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636

This table is a replication of Table 1, column 1 in Burgess and Pande (2005), page 785, for different cut-years. The 8th column presents the results from the original regression (break in 1977) and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are reported in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B1.2 – Rural Bank Credit share

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Bank Credit share														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.21 (0.337)	0.56 (0.559)	0.43 (0.457)	0.33 (0.392)	0.23 (0.282)	0.2 (0.261)	0.25 (0.249)	0.18 (0.209)	0.03 (0.189)	-0.08 (0.198)	-0.14 (0.212)	-0.19 (0.224)	-0.26 (0.232)	-0.33 (0.235)	-0.35 (0.231)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	-0.46 (0.473)	-1.28** (0.583)	-1.20** (0.519)	-1.15** (0.487)	-1.09** (0.431)	-1.10** (0.453)	-1.16** (0.458)	-1.09** (0.434)	-0.99** (0.441)	-0.92* (0.480)	-0.87 (0.531)	-0.8 (0.571)	-0.74 (0.593)	-0.71 (0.589)	-0.47 (0.529)
Number of Bank Branches per capita in 1961 * (1990- 2000) trend	0.63*** (0.174)	0.68*** (0.184)	0.73*** (0.196)	0.77*** (0.210)	0.82*** (0.225)	0.86*** (0.230)	0.87*** (0.239)	0.87*** (0.263)	0.91*** (0.300)	0.95** (0.342)	0.96** (0.377)	0.95** (0.414)	0.96** (0.437)	1.00** (0.455)	0.78* (0.419)
Number of Bank Branches per capita in 1961 * Post-T dummy	4.07** (1.617)	3.48** (1.459)	3.02** (1.346)	2.59* (1.269)	2.31 (1.506)	1.74 (1.313)	0.42 (1.443)	-0.3 (1.495)	-0.29 (1.644)	-0.24 (1.615)	-0.66 (1.419)	-1.19 (1.185)	-1.34 (0.861)	-1.31 (1.058)	-2.75* (1.526)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	0.65 (1.928)	0.94 (1.837)	1.22 (1.738)	1.47 (1.642)	1.72 (1.543)	1.91 (1.519)	1.92 (1.523)	1.95 (1.490)	2.07 (1.477)	2.22 (1.476)	2.25 (1.519)	2.22 (1.512)	2.25 (1.511)	2.32 (1.475)	1.95 (1.498)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.877	0.877	0.878	0.878	0.879	0.879	0.879	0.879	0.879	0.88	0.88	0.879	0.879	0.879	0.879
Observations	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512

This table is a replication of Table 1, column 2 in Burgess and Pande (2005), page 785, for different cut-years. The 8th column presents the results from the original regression (break in 1977) and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Rural bank credit share is the percentage of total bank credit accounted for by rural branches. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are reported in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B1.3 – Rural Bank Saving Share

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Bank Saving Share														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.42 (0.307)	0.46 (0.715)	0.46 (0.583)	0.44 (0.490)	0.29 (0.365)	0.19 (0.293)	0.09 (0.259)	-0.03 (0.235)	-0.12 (0.231)	-0.17 (0.225)	-0.22 (0.224)	-0.3 (0.224)	-0.36 (0.223)	-0.41* (0.226)	-0.44* (0.222)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	-1.08** (0.451)	-1.17 (0.706)	-1.21* (0.595)	-1.21** (0.516)	-1.08** (0.403)	-1.00*** (0.330)	-0.92*** (0.292)	-0.82*** (0.252)	-0.75*** (0.238)	-0.69** (0.235)	-0.62** (0.239)	-0.56** (0.246)	-0.49* (0.246)	-0.46** (0.196)	-0.36* (0.168)
Number of Bank Branches per capita in 1961 * (1990- 2000) trend	0.25 (0.268)	0.3 (0.269)	0.33 (0.269)	0.36 (0.266)	0.39 (0.259)	0.4 (0.251)	0.42* (0.236)	0.43* (0.229)	0.45* (0.224)	0.45* (0.224)	0.43* (0.222)	0.45* (0.235)	0.43* (0.235)	0.46** (0.223)	0.39 (0.207)
Number of Bank Branches per capita in 1961 * Post-T dummy	3.61** (1.405)	3.05*** (0.909)	2.33*** (0.561)	1.47*** (0.443)	1.01* (0.571)	0.46 (0.624)	0 (0.846)	-0.17 (0.777)	-0.31 (0.634)	-0.78 (0.625)	-1.22* (0.616)	-1.1 (0.689)	-1.31** (0.539)	-1.15 (0.789)	-1.64* (0.898)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-0.5 (0.465)	-0.24 (0.450)	-0.03 (0.448)	0.11 (0.457)	0.23 (0.466)	0.32 (0.477)	0.37 (0.507)	0.44 (0.533)	0.51 (0.562)	0.49 (0.591)	0.43 (0.631)	0.49 (0.667)	0.46 (0.688)	0.51 (0.588)	0.39 (0.545)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.869	0.869	0.869	0.869	0.869	0.869	0.869	0.87	0.869	0.869	0.869	0.869	0.869	0.868	
Observations	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512

This table is a replication of Table 1, column 3 in Burgess and Pande (2005), page 785, for different cut-years. The 8th column presents the results from the original regression (break in 1977) and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Rural bank saving share is the percentage of total bank saving accounted for by rural branches. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are reported in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B1.4 – Branches in banked locations

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Branches in banked locations															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.09*** (0.015)	0.09*** (0.014)	0.10*** (0.012)	0.11*** (0.011)	0.12*** (0.010)	0.12*** (0.010)	0.13*** (0.011)	0.14*** (0.012)	0.15*** (0.013)	0.15*** (0.015)	0.16*** (0.016)	0.16*** (0.017)	0.16*** (0.019)	0.15*** (0.020)	0.15*** (0.021)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	0.04 (0.032)	0.03 (0.029)	0.01 (0.027)	0 (0.025)	-0.02 (0.022)	-0.04* (0.020)	-0.06** (0.020)	-0.07*** (0.020)	-0.08*** (0.021)	-0.09*** (0.022)	-0.09*** (0.024)	-0.10*** (0.027)	-0.10*** (0.029)	-0.11*** (0.031)	-0.12*** (0.029)
Number of Bank Branches per capita in 1961 * (1990- 2000) trend	0.04 (0.032)	0.05 (0.033)	0.06 (0.034)	0.07* (0.035)	0.08* (0.036)	0.08** (0.038)	0.09** (0.041)	0.10** (0.041)	0.10** (0.041)	0.10** (0.041)	0.11** (0.042)	0.11** (0.043)	0.12** (0.044)	0.13** (0.045)	0.13*** (0.043)
Number of Bank Branches per capita in 1961 * Post-T dummy	0.41*** (0.107)	0.51*** (0.122)	0.60*** (0.140)	0.64*** (0.162)	0.66*** (0.178)	0.66*** (0.196)	0.62*** (0.203)	0.53** (0.187)	0.40** (0.170)	0.26 (0.159)	0.19 (0.156)	0.09 (0.162)	0.04 (0.149)	0.01 (0.126)	-0.04 (0.115)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-0.69*** (0.161)	-0.65*** (0.156)	-0.60*** (0.148)	-0.56*** (0.139)	-0.51*** (0.130)	-0.47*** (0.119)	-0.43*** (0.110)	-0.40*** (0.103)	-0.39*** (0.096)	-0.39*** (0.091)	-0.38*** (0.085)	-0.37*** (0.080)	-0.36*** (0.078)	-0.34*** (0.075)	-0.32*** (0.072)
State and year dummies	YES														
Other controls	YES														
Adjusted R-squared	0.98	0.98	0.98	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.98	0.98
Observations	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636

This table is a replication of Table 1, column 4 in Burgess and Pande (2005), page 785, for different cut-years. The 8th column presents the results from the original regression (break in 1977) and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are reported in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 2 - Bank branch expansion and poverty: reduced form evidence**

Table B2.1 – Rural Headcount Ratio

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Headcount Ratio														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.75 (0.773)	-0.38 (0.629)	-0.37 (0.552)	-0.46 (0.464)	-0.58 (0.379)	-0.69** (0.293)	-0.75*** (0.251)	-0.77*** (0.235)	-0.78*** (0.234)	-0.78*** (0.243)	-0.77*** (0.244)	-0.77*** (0.240)	-0.76*** (0.234)	-0.75*** (0.228)	-0.75*** (0.224)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	0.49 (0.778)	0.27 (0.659)	0.38 (0.594)	0.56 (0.524)	0.75 (0.465)	0.92** (0.419)	1.04** (0.413)	1.15** (0.424)	1.26** (0.429)	1.38*** (0.402)	1.52*** (0.365)	1.66*** (0.330)	1.77*** (0.313)	1.80*** (0.314)	1.53*** (0.297)
Number of Bank Branches per capita in 1961 * (1990 - 2000) trend	-0.52* (0.264)	-0.67** (0.266)	-0.78** (0.282)	-0.88*** (0.296)	-0.95*** (0.303)	-1.01*** (0.312)	-1.07*** (0.326)	-1.15*** (0.342)	-1.25*** (0.351)	-1.38*** (0.346)	-1.52*** (0.355)	-1.67*** (0.380)	-1.79*** (0.420)	-1.82*** (0.463)	-1.56*** (0.476)
Number of Bank Branches per capita in 1961 * Post-T dummy	-2.13 (3.078)	-5.86* (2.910)	-7.01** (3.111)	-7.16** (3.084)	-6.42** (2.893)	-5.23** (2.411)	-4.37* (2.161)	-3.77* (1.940)	-3.37* (1.682)	-3.14* (1.666)	-2.82 (2.009)	-2.3 (2.369)	-1.43 (2.590)	0.1 (2.566)	2.92 (2.180)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	4.47* (2.308)	3.59 (2.356)	2.95 (2.407)	2.42 (2.437)	2.05 (2.427)	1.81 (2.420)	1.52 (2.414)	1.2 (2.387)	0.84 (2.311)	0.41 (2.153)	-0.01 (1.995)	-0.4 (1.845)	-0.69 (1.713)	-0.75 (1.615)	-0.32 (1.593)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.835	0.837	0.84	0.841	0.841	0.838	0.836	0.835	0.835	0.835	0.835	0.836	0.835	0.835	0.834
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627

This table is a replication of Table 2, column 2 in Burgess and Pande (2005), page 788, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B2.2 – Urban Headcount Ratio

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Urban Headcount Ratio														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.47 (0.364)	0.35 (0.343)	0.23 (0.334)	0.08 (0.323)	-0.06 (0.312)	-0.15 (0.287)	-0.21 (0.262)	-0.27 (0.237)	-0.32 (0.212)	-0.36* (0.190)	-0.38** (0.173)	-0.39** (0.160)	-0.40** (0.150)	-0.40** (0.144)	-0.39** (0.141)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	-0.81** (0.346)	-0.65* (0.354)	-0.48 (0.341)	-0.3 (0.325)	-0.14 (0.307)	-0.03 (0.287)	0.07 (0.268)	0.15 (0.257)	0.21 (0.254)	0.23 (0.261)	0.23 (0.282)	0.2 (0.316)	0.15 (0.352)	0.05 (0.376)	-0.12 (0.433)
Number of Bank Branches per capita in 1961 * (1990 - 2000) trend	-0.09 (0.246)	-0.13 (0.250)	-0.18 (0.260)	-0.22 (0.279)	-0.23 (0.309)	-0.26 (0.332)	-0.29 (0.356)	-0.31 (0.378)	-0.32 (0.396)	-0.3 (0.404)	-0.28 (0.420)	-0.24 (0.441)	-0.18 (0.460)	-0.09 (0.467)	0.08 (0.508)
Number of Bank Branches per capita in 1961 * Post-T dummy	-3.85* (2.121)	-4.47** (1.842)	-4.87** (2.001)	-4.67* (2.255)	-3.9 (2.555)	-3.59 (2.427)	-3.22 (2.364)	-2.76 (2.286)	-2.16 (2.162)	-1.35 (2.026)	-0.65 (1.960)	-0.02 (1.843)	0.57 (1.570)	1.17 (1.083)	1.88 (1.267)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	1.64 (1.633)	1.38 (1.522)	1.1 (1.411)	0.91 (1.294)	0.85 (1.166)	0.7 (1.069)	0.58 (0.997)	0.5 (0.964)	0.46 (0.988)	0.52 (1.093)	0.6 (1.206)	0.7 (1.308)	0.84 (1.371)	1.02 (1.352)	1.3 (1.228)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.912	0.913	0.914	0.914	0.914	0.914	0.913	0.913	0.912	0.912	0.911	0.911	0.911	0.912	

This table is a replication of Table 2, column 2 in Burgess and Pande (2005), page 788, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B2.3 – Aggregate Headcount Ratio

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Aggregate Headcount Ratio														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.59 (0.669)	-0.32 (0.539)	-0.33 (0.477)	-0.42 (0.410)	-0.54 (0.348)	-0.63** (0.278)	-0.68** (0.242)	-0.71*** (0.225)	-0.72*** (0.220)	-0.73*** (0.223)	-0.73*** (0.221)	-0.72*** (0.216)	-0.72*** (0.211)	-0.71*** (0.207)	-0.70*** (0.204)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	0.32 (0.650)	0.17 (0.547)	0.28 (0.496)	0.45 (0.443)	0.63 (0.394)	0.77** (0.349)	0.89** (0.334)	0.99*** (0.332)	1.09*** (0.327)	1.18*** (0.301)	1.28*** (0.274)	1.37*** (0.261)	1.43*** (0.271)	1.41*** (0.286)	1.14*** (0.253)
Number of Bank Branches per capita in 1961 * (1990 - 2000) trend	-0.49** (0.224)	-0.61** (0.227)	-0.71*** (0.238)	-0.79*** (0.252)	-0.85*** (0.271)	-0.90*** (0.281)	-0.97*** (0.295)	-1.04*** (0.310)	-1.12*** (0.323)	-1.21*** (0.334)	-1.31*** (0.357)	-1.40*** (0.391)	-1.47*** (0.432)	-1.46*** (0.458)	-1.20** (0.425)
Number of Bank Branches per capita in 1961 * Post-T dummy	-2.43 (2.687)	-5.40** (2.363)	-6.39** (2.406)	-6.41** (2.417)	-5.54** (2.425)	-4.72** (2.055)	-4.07** (1.851)	-3.53* (1.706)	-3.05* (1.617)	-2.58 (1.765)	-2.08 (2.051)	-1.45 (2.279)	-0.58 (2.343)	0.78 (2.138)	3.14* (1.543)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	3.47* (1.860)	2.73 (1.888)	2.17 (1.951)	1.72 (1.970)	1.44 (1.926)	1.18 (1.902)	0.91 (1.871)	0.62 (1.819)	0.32 (1.725)	0.02 (1.562)	-0.26 (1.404)	-0.51 (1.260)	-0.68 (1.147)	-0.65 (1.089)	-0.23 (1.150)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.875	0.877	0.879	0.88	0.88	0.878	0.876	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.874
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627

This table is a replication of Table 2, column 4 in Burgess and Pande (2005), page 788, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. F-test 1 and F-test 2 test the linear restriction that the coefficients in the first two and three rows sum to 0. Standard errors clustered by state are in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 3 - Bank branch expansion and poverty: instrumental variables evidence**

Table B3.1 – Rural Headcount Ratio - IV

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Headcount ratio														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number branches opened in rural unbanked locations per capita	-4.55 (3.967)	-3.41 (3.143)	-3.35 (2.784)	-3.62 (2.476)	-4.00* (2.191)	-4.32** (1.952)	-4.55** (1.849)	-4.74** (1.790)	-5.00** (1.746)	-5.42*** (1.605)	-6.05*** (1.499)	-6.92*** (1.589)	-7.61*** (1.851)	-7.63*** (2.110)	-7.19** (2.673)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.68* (0.384)	-0.48 (0.345)	-0.41 (0.321)	-0.39 (0.294)	-0.4 (0.263)	-0.44 (0.261)	-0.46 (0.268)	-0.48* (0.269)	-0.46 (0.270)	-0.44 (0.267)	-0.41 (0.274)	-0.38 (0.285)	-0.4 (0.294)	-0.47 (0.299)	-0.53 (0.302)
Number of Bank Branches per capita in 1961 * Post-T dummy	3.13 (4.578)	-1.06 (3.951)	-2.54 (3.873)	-3.01 (3.731)	-2.69 (3.591)	-2.03 (2.894)	-1.69 (2.521)	-1.42 (2.297)	-1.86 (2.159)	-2.64 (2.448)	-3.7 (3.136)	-4.92 (4.277)	-5.03 (4.960)	-3.61 (5.025)	-1.93 (5.040)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	1.37 (3.338)	0.28 (2.621)	-0.46 (2.471)	-0.98 (2.398)	-1.15 (2.242)	-1.07 (2.338)	-1.08 (2.412)	-1.08 (2.334)	-1.43 (2.216)	-1.98 (1.886)	-2.67 (1.593)	-3.44** (1.287)	-3.70*** (1.065)	-3.27*** (0.955)	-2.68** (0.974)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.771	0.795	0.798	0.793	0.784	0.774	0.766	0.76	0.751	0.739	0.72	0.692	0.705	0.704	0.717
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627

This table is a replication of Table 3, column 3 in Burgess and Pande (2005), page 789, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B3.2 – Urban Headcount ratio - IV

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Urban Headcount ratio														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number branches opened in rural unbanked locations per capita	2.61*	2.1	1.49	0.84	0.3	-0.09	-0.41	-0.66	-0.82	-0.87	-0.87	-0.8	-0.58	-0.17	0.67
	(1.439)	(1.204)	(1.140)	(1.143)	(1.154)	(1.142)	(1.110)	(1.066)	(1.044)	(1.052)	(1.134)	(1.320)	(1.531)	(1.657)	(2.322)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.12	-0.1	-0.1	-0.13	-0.19	-0.21	-0.24	-0.26*	-0.29**	-0.31**	-0.34***	-0.35***	-0.37***	-0.40***	-0.42***
	(0.089)	(0.093)	(0.121)	(0.137)	(0.146)	(0.143)	(0.139)	(0.134)	(0.125)	(0.116)	(0.110)	(0.107)	(0.105)	(0.105)	(0.116)
Number of Bank Branches per capita in 1961 * Post-T dummy	-4.56	-4.89**	-4.83**	-4.23**	-3.27	-2.86	-2.48	-2.06	-1.64	-1.08	-0.64	-0.22	0.39	1.19	2.46
	(3.002)	(2.207)	(1.914)	(1.845)	(1.945)	(1.764)	(1.692)	(1.654)	(1.592)	(1.600)	(1.744)	(1.955)	(1.985)	(1.703)	(2.828)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	1.29	0.55	-0.06	-0.36	-0.34	-0.45	-0.5	-0.47	-0.37	-0.16	0.03	0.21	0.49	0.84	1.37
	(2.130)	(1.562)	(1.059)	(0.761)	(0.801)	(0.842)	(0.919)	(1.015)	(1.083)	(1.196)	(1.352)	(1.520)	(1.598)	(1.491)	(1.373)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.883	0.892	0.902	0.909	0.912	0.914	0.915	0.915	0.915	0.914	0.914	0.913	0.923	0.922	0.919
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627

This table is a replication of Table 3, column 4 in Burgess and Pande (2005), page 789, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B3.3 – Aggregate Headcount ratio - IV

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Aggregate Headcount ratio														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number branches opened in rural unbanked locations per capita	-3.72 (3.259)	-2.83 (2.621)	-2.8 (2.357)	-3.07 (2.126)	-3.42* (1.895)	-3.69** (1.679)	-3.92** (1.558)	-4.10** (1.464)	-4.33*** (1.383)	-4.63*** (1.230)	-5.08*** (1.120)	-5.68*** (1.206)	-6.09*** (1.462)	-5.92*** (1.657)	-5.26** (1.893)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.62* (0.334)	-0.46 (0.296)	-0.4 (0.277)	-0.38 (0.254)	-0.41* (0.227)	-0.43* (0.223)	-0.45* (0.226)	-0.46* (0.226)	-0.45* (0.226)	-0.44* (0.223)	-0.42* (0.227)	-0.41 (0.236)	-0.43* (0.242)	-0.49* (0.247)	-0.54** (0.250)
Number of Bank Branches per capita in 1961 * Post-T dummy	2.24 (3.683)	-1.15 (3.102)	-2.43 (3.051)	-2.72 (2.998)	-2.25 (2.984)	-1.85 (2.464)	-1.64 (2.178)	-1.39 (2.034)	-1.66 (1.955)	-2.08 (2.239)	-2.74 (2.795)	-3.53 (3.661)	-3.38 (4.102)	-2 (3.952)	-0.28 (3.507)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	0.59 (2.616)	-0.31 (2.046)	-0.98 (1.956)	-1.4 (1.913)	-1.45 (1.781)	-1.48 (1.830)	-1.54 (1.856)	-1.55 (1.759)	-1.8 (1.630)	-2.13 (1.328)	-2.59** (1.058)	-3.10*** (0.796)	-3.19*** (0.645)	-2.73*** (0.581)	-2.10*** (0.673)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.832	0.848	0.85	0.846	0.839	0.831	0.824	0.818	0.812	0.804	0.792	0.774	0.788	0.793	0.81
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627

This table is a replication of Table 3, column 5 in Burgess and Pande (2005), page 789, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B3.4 – Rural Headcount ratio – 1961 - 1989 – IV

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Headcount ratio 1961 - 1989														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number branches opened in rural unbanked locations per capita	-4.05 (6.906)	-1.88 (4.595)	-2.21 (3.646)	-2.9 (2.976)	-3.58 (2.485)	-4.10* (2.093)	-4.44** (1.913)	-4.70** (1.821)	-5.04** (1.750)	-5.54*** (1.577)	-6.31*** (1.430)	-7.40*** (1.500)	-8.21*** (1.761)	-8.15*** (1.981)	-7.84*** (2.402)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.63 (0.591)	-0.31 (0.452)	-0.25 (0.389)	-0.26 (0.330)	-0.31 (0.272)	-0.37 (0.258)	-0.41 (0.263)	-0.43 (0.264)	-0.42 (0.265)	-0.39 (0.264)	-0.35 (0.273)	-0.31 (0.290)	-0.34 (0.304)	-0.43 (0.311)	-0.49 (0.318)
Number of Bank Branches per capita in 1961 * Post-T dummy	2.26 (9.264)	-3.91 (6.607)	-4.94 (5.718)	-4.85 (4.966)	-4.04 (4.394)	-3.03 (3.423)	-2.51 (2.895)	-2.13 (2.587)	-2.58 (2.374)	-3.46 (2.623)	-4.71 (3.293)	-6.26 (4.469)	-6.42 (5.078)	-4.69 (4.992)	-3.07 (4.793)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.827	0.858	0.859	0.851	0.838	0.824	0.813	0.804	0.794	0.779	0.756	0.719	0.724	0.724	0.734
Observations	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460

This table is a replication of Table 3, column 6 in Burgess and Pande (2005), page 789, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B3.5 – Rural Headcount ratio – T-2000 – IV

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Headcount ratio T-2000														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number branches opened in rural unbanked locations per capita	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.84** (2.805)	-6.88** (2.799)	-7.00** (2.775)	-7.19** (2.754)	-7.47** (2.748)	-7.75** (2.730)	-7.95*** (2.673)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)	-0.80* (0.447)
Number of Bank Branches per capita in 1961 * Post-T dummy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.45 (2.903)	-0.51 (2.879)	-0.65 (2.803)	-0.89 (2.686)	-1.24 (2.531)	-1.6 (2.345)	-1.85 (2.138)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.806	0.805	0.803	0.825	0.82	0.815
Observations	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375

This table is a replication of Table 3, column 7 in Burgess and Pande (2005), page 789, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B3.6 – Rural Headcount ratio – Survey years – IV

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	Rural Headcount ratio Survey years														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Number branches opened in rural unbanked locations per capita	-4.05 (5.003)	-2.98 (3.837)	-3.33 (3.150)	-3.33 (3.150)	-3.9 (2.478)	-4.21* (2.263)	-4.21* (2.263)	-4.21* (2.263)	-4.21* (2.263)	-5.87** (2.066)	-5.87** (2.066)	-5.87** (2.066)	-5.87** (2.066)	-5.87** (2.066)	7.87 (23.060)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.69 (0.397)	-0.46 (0.355)	-0.38 (0.339)	-0.38 (0.339)	-0.41 (0.284)	-0.46 (0.281)	-0.46 (0.281)	-0.46 (0.281)	-0.46 (0.281)	-0.37 (0.280)	-0.37 (0.280)	-0.37 (0.280)	-0.37 (0.280)	-0.37 (0.280)	-1.01 (0.693)
Number of Bank Branches per capita in 1961 * Post-T dummy	3.9 (4.558)	-0.8 (3.992)	-2.74 (4.303)	-2.74 (4.303)	-2.36 (3.982)	-1.31 (3.322)	-1.31 (3.322)	-1.31 (3.322)	-1.31 (3.322)	-4.22 (6.104)	-4.22 (6.104)	-4.22 (6.104)	-4.22 (6.104)	-4.22 (6.104)	22.69 (37.139)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	1.67 (3.680)	0.41 (2.788)	-0.75 (2.573)	-0.75 (2.573)	-0.97 (2.400)	-0.79 (2.614)	-0.79 (2.614)	-0.79 (2.614)	-0.79 (2.614)	-2.39 (2.354)	-2.39 (2.354)	-2.39 (2.354)	-2.39 (2.354)	-2.39 (2.354)	6.6 (11.922)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.746	0.767	0.762	0.762	0.746	0.734	0.734	0.734	0.734	0.679	0.679	0.679	0.728	0.728	0.775
Observations	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375

This table is a replication of Table 3, column 8 in Burgess and Pande (2005), page 789, for different cut-years. The 8th column presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test.\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 4 - Rural credit and savings and poverty: instrumental variables evidence

Table B4.1 – Rural Headcount Ratio - effect of rural Credit and Saving Share

	1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980		1981		1982		1983		1984	
	Rural Headcount Ratio																													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
Rural bank credit share	-0.91 (0.536)		-0.94* (0.523)		-1.04* (0.539)		-1.16* (0.580)		-1.27* (0.623)		-1.35* (0.644)		-1.43** (0.663)		-1.52** (0.694)		-1.61** (0.749)		-1.71* (0.823)		-1.86* (0.959)		-2.06* (1.171)		-2.13* (1.210)		-1.87* (0.948)		-1.38 (0.914)	
Rural bank savings share		-1.61 (1.086)		-1.42* (0.811)		-1.47* (0.729)		-1.59** (0.727)		-1.81** (0.792)		-1.98** (0.761)		-2.09** (0.774)		-2.22** (0.781)		-2.36*** (0.791)		-2.58*** (0.822)		-2.95*** (0.918)		-3.32*** (0.998)		-3.78*** (1.103)		-3.63*** (0.905)		-3.06 (1.967)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.87 (0.525)	-1.33** (0.476)	-0.79 (0.524)	-1.14** (0.426)	-0.8 (0.511)	-1.12** (0.392)	-0.85 (0.505)	-1.16*** (0.384)	-0.92* (0.504)	-1.29*** (0.411)	-0.99* (0.443)	-1.40*** (0.498)	-0.99* (0.495)	-1.45** (0.496)	-1.01* (0.538)	-1.51** (0.505)	-1.05* (0.582)	-1.57** (0.526)	-1.10* (0.638)	-1.62** (0.561)	-1.14* (0.732)	-1.75** (0.628)	-1.20* (0.819)	-1.96** (0.709)	-1.28* (0.922)	-2.19** (0.689)	-1.29* (0.760)	-2.25*** (0.639)	-1.18* (0.619)	-2.08*** (0.619)
Number of Bank Branches per capita in 1961 * Post-T dummy	2.46 (3.509)	4.55 (6.191)	-2.84 (2.494)	-1.44 (4.019)	-3.46 (2.290)	-2.46 (3.596)	-3.33 (2.004)	-2.83 (3.115)	-2.56 (1.918)	-2.28 (3.205)	-1.86 (1.278)	-1.87 (2.426)	-2.37* (2.317)	-1.97 (1.681)	-2.89 (2.340)	-2.05 (2.346)	-2.94 (2.446)	-2.35 (3.132)	-3.03 (3.182)	-3.54 (3.970)	-3.72 (4.264)	-5.04 (4.540)	-4.57 (5.006)	-5.19 (4.249)	-4.03 (5.275)	-5.97 (3.280)	-1.46 (4.469)	-3.73 (3.435)	1.51 (6.226)	-0.94
Number of Bank Branches per capita in 1961 * Post-1989 dummy	4.99** (2.225)	3.7 (2.537)	4 (2.333)	2.67 (2.524)	3.74 (2.404)	2.19 (2.602)	3.79 (2.513)	1.88 (2.588)	4.22 (2.643)	2.04 (2.503)	4.67 (2.711)	2.21 (2.533)	4.5 (2.699)	2.15 (2.543)	4.4 (2.644)	2.13 (2.653)	4.63 (2.738)	2.03 (2.788)	4.89 (2.996)	1.54 (2.764)	5.04 (3.455)	1.11 (3.062)	5.39 (4.121)	1.5 (3.700)	6.1 (4.712)	1.83 (4.719)	6.51 (4.366)	2.89 (5.279)	5.87* (3.237)	3.45 (4.721)
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		
Adjusted R-squared	0.777	0.705	0.774	0.733	0.764	0.73	0.748	0.715	0.731	0.679	0.716	0.649	0.702	0.627	0.686	0.602	0.667	0.572	0.646	0.523	0.611	0.429	0.619	0.41	0.281	0.32	0.469			
Observations	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503		

This table is a replication of Table 4, column 1 in Burgess and Pande (2005), page 791, for different cut-years. The columns 15 and 16 present the results from the original regression and are the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Tables B1.2 and B1.3 report the first-stage regressions for rural banks credit and savings share, respectively. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table B4.2 – Urban Headcount Ratio - effect of rural Credit and Saving Share

	1970															1971															1972															1973															1974															1975															1976															1977															1978															1979															1980															1981															1982															1983															1984																																																																																																																																									

Table B4.3 – Aggregate Headcount Ratio - effect of rural Credit and Saving Share

	1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980		1981		1982		1983		1984	
	Aggregate Headcount Ratio																													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
Rural bank credit share	-0.85*		-0.88*		-0.97*		-1.07**		-1.17**		-1.23**		-1.29**		-1.37**		-1.45**		-1.52*		-1.62*		-1.75		-1.75		-1.49*		-1.06	
	(0.459)		(0.448)		(0.460)		(0.491)		(0.523)		(0.540)		(0.555)		(0.586)		(0.643)		(0.717)		(0.840)		(1.020)		(1.036)		(0.800)		(0.754)	
Rural bank savings share		-1.5		-1.37*		-1.41*		-1.51**		-1.70**		-1.80**		-1.89***		-2.01***		-2.13***		-2.30***		-2.58***		-2.83***		-3.13***		-2.90***		-2.36
		(0.994)		(0.755)		(0.668)		(0.639)		(0.674)		(0.632)		(0.639)		(0.647)		(0.668)		(0.722)		(0.849)		(0.935)		(1.030)		(0.795)		(1.500)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.84*	-1.27***	-0.79*	-1.14***	-0.80*	-1.12***	-0.84*	-1.16***	-0.92**	-1.28***	-0.96**	-1.33***	-0.95**	-1.37***	-0.96**	-1.42***	-1.01**	-1.48***	-1.06**	-1.53**	-1.09**	-1.63**	-1.13*	-1.79*	-1.18*	-1.94**	-1.17*	-1.94**	-1.06*	-1.75***
	(0.439)	(0.420)	(0.435)	(0.352)	(0.426)	(0.325)	(0.417)	(0.298)	(0.406)	(0.299)	(0.412)	(0.334)	(0.401)	(0.389)	(0.406)	(0.437)	(0.423)	(0.490)	(0.451)	(0.557)	(0.486)	(0.656)	(0.546)	(0.748)	(0.612)	(0.846)	(0.590)	(0.717)	(0.534)	(0.540)
Number of Bank Branches per capita in 1961 * Post-T dummy	1.13	3.07	-2.63	-1.22	-3.07	-2.04	-2.81*	-2.27	-1.94	-1.62	-1.55	-1.55	-2.13	-1.76	-2.6	-1.84	-2.52	-2	-2.33	-2.8	-2.69	-3.88	-3.18	-3.75	-2.51	-4.15	-0.24	-2.09	2.2	0.32
	(2.945)	(5.472)	(1.938)	(3.654)	(1.796)	(3.337)	(1.538)	(2.933)	(1.507)	(3.077)	(1.090)	(2.482)	(1.253)	(2.459)	(1.677)	(2.518)	(2.346)	(2.636)	(3.030)	(3.258)	(3.723)	(4.158)	(4.126)	(4.592)	(3.668)	(4.635)	(2.521)	(3.520)	(2.555)	(4.844)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	3.96*	2.77	3.23	2.01	3.02	1.62	3.11	1.39	3.58	1.62	3.85	1.63	3.62	1.5	3.53	1.47	3.79	1.45	4.12	1.14	4.28	0.85	4.55	1.24	5.04	1.51	5.22	2.33	4.53	2.66
	(1.959)	(2.106)	(2.045)	(2.053)	(2.161)	(2.144)	(2.256)	(2.103)	(2.317)	(1.943)	(2.372)	(1.924)	(2.372)	(1.892)	(2.352)	(1.975)	(2.470)	(2.098)	(2.688)	(2.087)	(3.035)	(2.351)	(3.503)	(2.891)	(3.710)	(3.531)	(4.130)	(2.614)	(3.621)	
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
Adjusted R-squared	0.825	0.755	0.82	0.775	0.811	0.773	0.797	0.759	0.783	0.727	0.771	0.708	0.76	0.691	0.746	0.669	0.729	0.643	0.714	0.603	0.692	0.532								
Observations	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503		

This table is a replication of Table 4, column 3 in Burgess and Pande (2005), page 791, for different cut-years. The columns 15 and 16 present the results from the original regression and are the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Tables B1.2 and B1.3 report the first-stage regressions for rural banks credit and savings share, respectively. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 5 - Bank branch expansion and poverty reduction: robustness checks

Table B5.1 – Rural Headcount Ratio – Robustness Checks

This table is a replication of Table 5, column 1 in Burgess and Pande (2005), page 792, for different cut-years. The columns 15 and 16 present the results from the original regression and are the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Cumulative land reform is the total number of land reform acts passed by an Indian state. Health and education spending is the fraction of total state spending on health and education. Other development spending is the fraction of total state spending on agriculture, rural development, irrigation, public works, and community development programs. Fraction Congress, Janata, Hindu, Hard Left, and Regional refer to number of seats held in state legislatures by parties in these political groupings. Coefficient estimates are from IV regression in the form of equation (4).

Table B5.2 – Urban Headcount Ratio – Robustness Checks

This table is a replication of Table 5, column 2 in Burgess and Pande (2005), page 792, for different cut-years. The columns 15 and 16 present the results from the original regression and are the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Coefficient estimates are from IV regression in the form of equation (4). Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Cumulative land reform is the total number of land reform acts passed by an Indian state. Health and education spending is the fraction of total state spending on health and education. Other development spending is the fraction of total state spending on agriculture, rural development, irrigation, public works, and community development programs.

Fraction Congress, Janata, Hindu, Hard Left, and Regional refer to number of seats held in state legislatures by parties in these political groupings. Coefficient estimates are from IV regression in the form of equation (4).

## References

- Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review*, 95(3), 780–795. <https://doi.org/10.1257/0002828054201242>

# Do Rural Banks Matter That Much?

Burgess and Pande (AER, 2005) Reconsidered

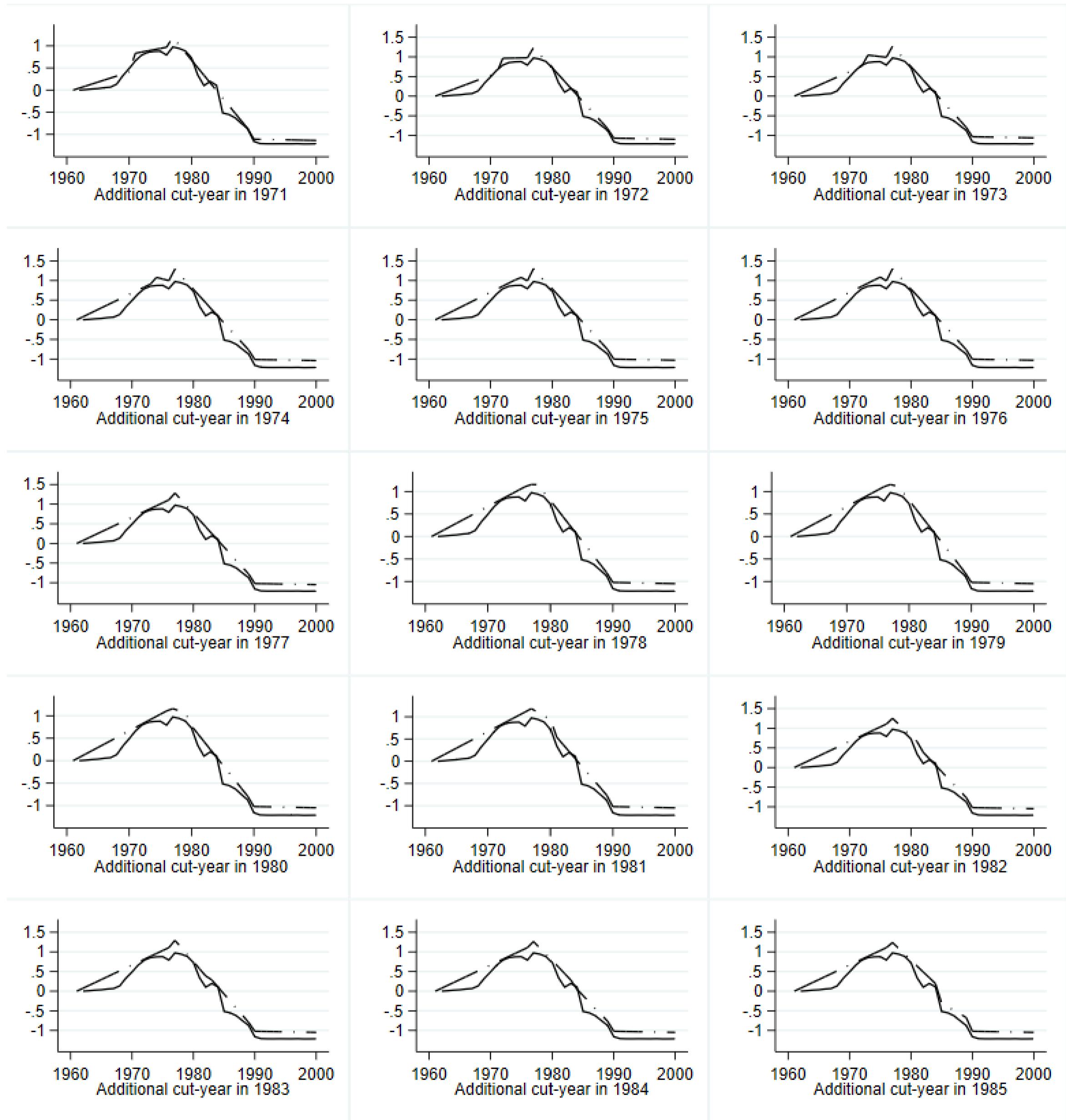
NINO BULISKERIA

JAROMIR BAXA

November 17, 2021

## Online Appendix C

Replication of Burgess and Pande ([2005](#)) with an additional cut-year to the one in 1977.



— rural branches in unbanked locations (with controls)  
 — rural branches in unbanked locations (trend break)

**Table 1 - Banking as a function of initial financial development**

Table C1.1 – Branched in Rural Unbanked locations

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
	Branched in Rural Unbanked locations																								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.009*** (0.00)	0.014 (0.01)	0.016 (0.01)	0.016 (0.01)	0.021* (0.01)	0.034** (0.01)	0.048*** (0.01)	0.061*** (0.02)	0.071*** (0.02)	0.077*** (0.02)	0.079*** (0.03)	0.079** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)	0.075** (0.03)
Number of Bank Branches per capita in 1961 * (1977 - 2000) trend	-0.264*** (0.03)	-0.267*** (0.03)	-0.266*** (0.03)	-0.259*** (0.03)	-0.241*** (0.03)	-0.222*** (0.03)	-0.198*** (0.04)	-0.174*** (0.04)	-0.153*** (0.05)	-0.130** (0.07)	-0.084 (0.07)	-0.250*** (0.03)	-0.246*** (0.17)	-0.032 (0.05)	-0.106** (0.04)	-0.119** (0.05)	-0.155*** (0.07)	-0.223*** (0.08)	-0.255*** (0.07)	-0.238*** (0.07)	-0.224*** (0.06)	-0.249*** (0.05)	-0.255*** (0.04)	-0.253*** (0.03)	-0.250*** (0.03)
Number of Bank Branches per capita in 1961 * (T - 2000) trend	0.084* (0.04)	0.082* (0.04)	0.079 (0.05)	0.071 (0.05)	0.050 (0.04)	0.017 (0.04)	-0.021 (0.04)	-0.058 (0.04)	-0.090* (0.06)	-0.118* (0.08)	-0.166* (0.08)	0.000 (0.08)	0.000 (0.08)	-0.220 (0.17)	-0.147*** (0.05)	-0.129*** (0.04)	-0.082 (0.06)	-0.016 (0.09)	0.001 (0.10)	0.000 (0.09)	0.058 (0.09)	0.066 (0.09)	0.057 (0.08)	0.056 (0.07)	0.172*** (0.05)
Number of Bank Branches per capita in 1961 * (1990- 2000) trend	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.168*** (0.04)	0.174*** (0.04)	0.176*** (0.04)	0.170*** (0.04)	0.159*** (0.04)	0.162*** (0.05)	0.177*** (0.05)	0.160*** (0.04)	0.089** (0.05)	0.106** (0.05)	0.120** (0.05)	0.119* (0.06)	0.000 (.)	
Number of Bank Branches per capita in 1961 * Post-1976 dummy	0.264 (0.24)	0.256 (0.24)	0.257 (0.23)	0.277 (0.22)	0.317 (0.22)	0.356 (0.22)	0.396* (0.21)	0.428** (0.20)	0.449** (0.19)	0.464** (0.18)	0.480** (0.18)	0.340 (0.25)	0.000 (.)	0.074 (0.15)	0.092 (0.15)	0.150 (0.16)	0.287* (0.14)	0.363** (0.12)	0.316** (0.12)	0.274* (0.14)	0.359** (0.16)	0.378* (0.19)	0.371* (0.20)	0.357 (0.23)	
Number of Bank Branches per capita in 1961 * Post-T dummy	-0.110 (0.11)	-0.061 (0.08)	0.016 (0.06)	0.143** (0.05)	0.289*** (0.07)	0.357*** (0.09)	0.391*** (0.11)	0.367*** (0.12)	0.294** (0.13)	0.207* (0.11)	0.146 (0.12)	-0.181 (0.12)	0.000 (0.12)	0.174 (0.14)	0.041 (0.20)	-0.121 (0.24)	-0.238 (0.28)	-0.103 (0.19)	0.079 (0.13)	-0.073 (0.12)	-0.403** (0.14)	-0.149 (0.11)	-0.016 (0.12)	0.024 (0.16)	-0.062 (0.17)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.238 (0.15)	-0.217 (0.15)	-0.212* (0.14)	-0.228** (0.12)	-0.257*** (0.10)	-0.252*** (0.07)	-0.221*** (0.05)	-0.249*** (0.06)	-0.344*** (0.07)	-0.327*** (0.07)	-0.317*** (0.06)	-0.318*** (0.06)	-0.318*** (0.06)	
Adj. R-Square	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	
Observations	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636
F test	3.065	6.108	7.526	7.919	7.489	8.081	6.706	5.865	3.914	2.646	2.210	2.317	.	0.915	4.996	13.258	9.931	0.729	0.295	0.177	5.289	2.961	0.506	0.357	9.956
P-value	0.077	0.011	0.005	0.004	0.006	0.004	0.008	0.013	0.043	0.104	0.144	0.149	.	0.422	0.022	0.000	0.002	0.499	0.749	0.839	0.018	0.082	0.613	0.706	0.002

This table is a replication of Table 1, column 1 in Burgess and Pande (2005), page 785, and the first column in Table A1 in this paper, with an additional cut-year to the one in 1977. The columns 13 presents from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. When the additional break is placed next to the original breaks in 1977 and 1990 (i.e., years 1976, 1978, 1989), some of the coefficients are 0 due to collinearity. The F-test is a joint significance test of coefficients at Number of Bank Branches per capita in 1961 \* (T - 2000) trend and Number of Bank Branches per capita \* Post-T dummy; therefore, it indicates a significance of the additional break. Notes: Standard errors clustered by state are reported in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 2 - Bank branch expansion and poverty: reduced form evidence**

Table C2.1 – Rural Headcount Ratio

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989				
	Rural Headcount Ratio																												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)				
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-1.193 (1.70)	0.037 (1.42)	0.520 (1.16)	-0.150 (0.94)	-0.654 (0.84)	-0.746 (0.78)	-0.380 (0.63)	-0.375 (0.56)	-0.457 (0.47)	-0.577 (0.38)	-0.687** (0.29)	-0.746*** (0.25)	-0.774*** (0.23)	-0.774*** (0.24)															
Number of Bank Branches per capita in 1961 * (1977 - 2000) trend	1.497*** (0.45)	1.444*** (0.46)	1.216** (0.49)	1.340** (0.58)	1.786** (0.61)	2.326*** (0.64)	1.865** (0.70)	1.523** (0.72)	1.048 (0.97)	0.591 (0.44)	1.120** (0.42)	1.148** (0.42)	-0.409 (1.75)	0.557 (0.64)	0.355 (0.34)	0.275 (0.48)	0.234 (0.58)	0.211 (0.65)	0.197 (0.69)	0.404 (0.65)	0.657 (0.59)	0.900 (0.54)	1.117** (0.50)	1.091** (0.47)					
Number of Bank Branches per capita in 1961 * (T - 2000) trend	0.070 (1.83)	-1.107 (1.56)	-1.362 (1.33)	-0.817 (1.18)	-0.758 (1.15)	-1.206 (1.12)	-1.112 (1.03)	-0.775 (0.90)	-0.217 (0.62)	0.360 (0.64)	0.469 (.)	0.000 (1.80)	0.000 (0.95)	1.657 (0.43)	0.820 (0.46)	1.162** (0.58)	1.388*** (0.68)	1.551** (0.69)	1.605** (0.63)	1.360* (0.61)	0.785 (0.78)	0.028 (1.66)	-0.666 (0.34)	2.161 (0.34)	-1.094*** (0.34)				
Number of Bank Branches per capita in 1961 * (1990- 2000) trend	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.150*** (0.34)	-1.251*** (0.35)	-1.379*** (0.35)	-1.520*** (0.36)	-1.665*** (0.38)	-1.788*** (0.42)	-1.819*** (0.47)	-1.559*** (0.48)	-1.192** (0.52)	-0.688 (0.62)	-0.237 (0.86)	-3.281* (1.69)	0.000 (.)
Number of Bank Branches per capita in 1961 * Post-1976 dummy	-2.387 (1.86)	-2.564 (1.90)	-3.248 (1.99)	-2.915 (1.96)	-1.876 (2.12)	-0.796 (2.02)	-1.564 (2.15)	-2.020 (2.08)	-2.495 (1.93)	-2.800* (1.40)	-2.800* (1.40)	0.000 (1.40)	0.000 (1.40)	-0.966 (1.58)	-0.697 (1.81)	-0.563 (2.06)	-0.482 (2.23)	-0.429 (2.35)	-0.390 (2.45)	-1.011 (2.36)	-1.855 (2.23)	-2.747 (2.10)	-3.615* (2.00)	-3.502* (1.94)					
Number of Bank Branches per capita in 1961 * Post-T dummy	5.085** (1.87)	1.057 (2.90)	-3.416 (2.55)	-1.081 (3.11)	3.147 (3.84)	5.615* (3.09)	0.093 (2.81)	-2.310 (2.88)	-3.880 (3.13)	-4.163 (3.94)	-2.822 (2.83)	-1.253 (2.04)	-3.766* (1.94)	-3.045*** (1.00)	-3.339* (1.58)	-3.170* (1.70)	-2.737 (1.62)	-1.926 (1.40)	-0.442 (0.98)	2.349*** (0.69)	4.020*** (1.07)	4.882*** (1.40)	4.423** (1.56)	-2.834 (2.18)	2.806 (1.79)				
Number of Bank Branches per capita in 1961 * Post-1989 dummy	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.205 (2.40)	1.204 (2.40)	1.204 (2.40)	1.204 (2.40)	1.204 (2.39)	0.836 (2.32)	0.408 (2.17)	-0.015 (2.01)	-0.401 (1.86)	-0.688 (1.73)	-0.749 (1.63)	-0.317 (1.60)	0.173 (1.58)	0.677 (1.56)	0.978 (1.50)	-0.037 (1.30)	-0.037 (1.30)				
Adj.R-Square	0.840	0.841	0.842	0.841	0.843	0.843	0.842	0.841	0.841	0.839	0.836	0.835	0.835	0.834	0.834	0.835	0.835	0.835	0.836	0.836	0.835	0.834	0.833	0.834					
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627				

This table is a replication of Table 2, column 2 in Burgess and Pande (2005), page 788, with an additional cut-year to the one in 1977. The columns 13 presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. When the additional break is placed next to the original breaks in 1977 and 1990 (i.e., years 1976, 1978, 1989), some of the coefficients are 0 due to collinearity. Notes: Standard errors clustered by state are in parentheses; p-values are in square brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3 - Bank branch expansion and poverty: instrumental variables evidence

Table C3.1 – Rural Headcount Ratio - IV

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
	Rural Headcount ratio																								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Number branches opened in rural unbanked locations per capita	-5.803*** (1.69)	-5.536*** (1.59)	-4.785*** (1.51)	-5.352*** (1.75)	-6.566*** (1.81)	-6.902*** (2.23)	-5.059** (2.18)	-4.278* (2.30)	-4.056* (2.31)	-4.195* (2.25)	-4.443** (1.97)	-4.604** (1.83)	-4.743** (1.79)	-4.998** (1.76)	-5.412*** (1.55)	-5.963*** (1.41)	-6.487*** (1.34)	-5.909*** (1.30)	-4.351** (1.51)	-2.759 (2.27)	-2.156 (3.03)	-2.559 (2.59)	-3.435 (2.35)	-4.433* (2.20)	-4.405** (2.01)
Number of bank branches per capita in 1961*(1961–2000) trend	-0.640* (0.31)	-0.589* (0.33)	-0.466 (0.32)	-0.553 (0.37)	-0.737 (0.42)	-0.792* (0.40)	-0.522 (0.36)	-0.412 (0.34)	-0.379 (0.30)	-0.400 (0.27)	-0.437 (0.27)	-0.460 (0.27)	-0.479* (0.27)	-0.463 (0.27)	-0.437 (0.27)	-0.403 (0.28)	-0.371 (0.29)	-0.407 (0.27)	-0.504* (0.26)	-0.602** (0.26)	-0.634** (0.27)	-0.614** (0.27)	-0.561* (0.27)	-0.498* (0.28)	-0.500* (0.27)
Number of Bank Branches per capita in 1961 * Post-1976 dummy	-0.407 (2.17)	-0.809 (2.11)	-1.515 (1.96)	-1.139 (2.09)	-0.635 (2.67)	-0.875 (2.97)	-1.435 (2.39)	-1.265 (1.97)	-0.816 (1.63)	-0.454 (1.43)	-0.400 (1.20)	-0.272 (1.03)	-1.422 (2.30)	-0.035 (2.09)	0.022 (2.23)	-0.148 (2.32)	-0.580 (2.47)	-1.248 (2.56)	-1.395 (2.21)	-0.960 (1.79)	-0.520 (1.72)	-0.445 (1.76)	-0.733 (1.90)	-1.242 (2.11)	-1.206 (2.15)
Number of Bank Branches per capita in 1961 * Post-T dummy	4.061 (3.76)	2.412 (3.75)	-0.246 (3.16)	1.425 (3.42)	4.846 (3.35)	5.976** (2.56)	0.887 (2.59)	-1.424 (3.04)	-2.450 (3.27)	-2.395 (3.40)	-1.754 (2.56)	-1.472 (2.09)	0.000 (.)	-1.829 (1.13)	-2.648 (1.89)	-3.546 (2.54)	-4.206 (3.12)	-2.535 (2.49)	0.838 (1.47)	4.150** (1.62)	5.508 (3.15)	5.323** (2.44)	3.878* (2.07)	1.230 (2.00)	2.504 (2.18)
Number of Bank Branches per capita in 1961 * Post-1989 dummy	-0.408 (2.72)	-0.704 (2.73)	-1.278 (2.53)	-0.910 (2.58)	-0.150 (2.84)	0.112 (2.56)	-0.936 (2.29)	-1.328 (2.26)	-1.456 (2.16)	-1.378 (2.26)	-1.224 (2.32)	-1.141 (2.33)	-1.081 (2.23)	-1.429 (1.90)	-1.960 (1.59)	-2.610 (1.40)	-3.135** (1.57)	-2.346 (1.91)	-0.704 (2.44)	0.512 (2.71)	0.455 (2.27)	-0.555 (1.99)	-1.527 (1.84)	-1.526 (1.57)	-2.738
Adj.R-Square	0.736	0.746	0.766	0.751	0.717	0.706	0.759	0.778	0.782	0.777	0.768	0.762	0.760	0.750	0.739	0.724	0.707	0.725	0.767	0.801	0.812	0.805	0.788	0.764	0.766
Observations	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627

This table is a replication of Table 3, column 3 in Burgess and Pande (2005), page 789, with an additional cut-year to the one in 1977. The columns 13 presents the results from the original regression and is the benchmark for the comparison. For replication, we used data and methodology provided by the authors. Note: Coefficient estimates are from IV regression in the form of equation (3). When the additional break is placed next to the original breaks in 1977 and 1990 (i.e., years 1976, 1978, 1989), the impact of bank branch expansion on poverty is virtually identical to the benchmark specification since the additional break in fact duplicates the original one. Robust standard errors are in parentheses. The over-identification is tested using the conventional Sargan test. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## References

- Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review*, 95(3), 780–795. <https://doi.org/10.1257/0002828054201242>

# Do Rural Banks Matter That Much?

Burgess and Pande (AER, 2005) Reconsidered

NINO BULISKERIA

JAROMIR BAXA

November 17, 2021

## Online Appendix D

Initial financial development and rural branch expansion  
with cut-years in 1967, 1972, 1977, 1980, 1985, and 1990

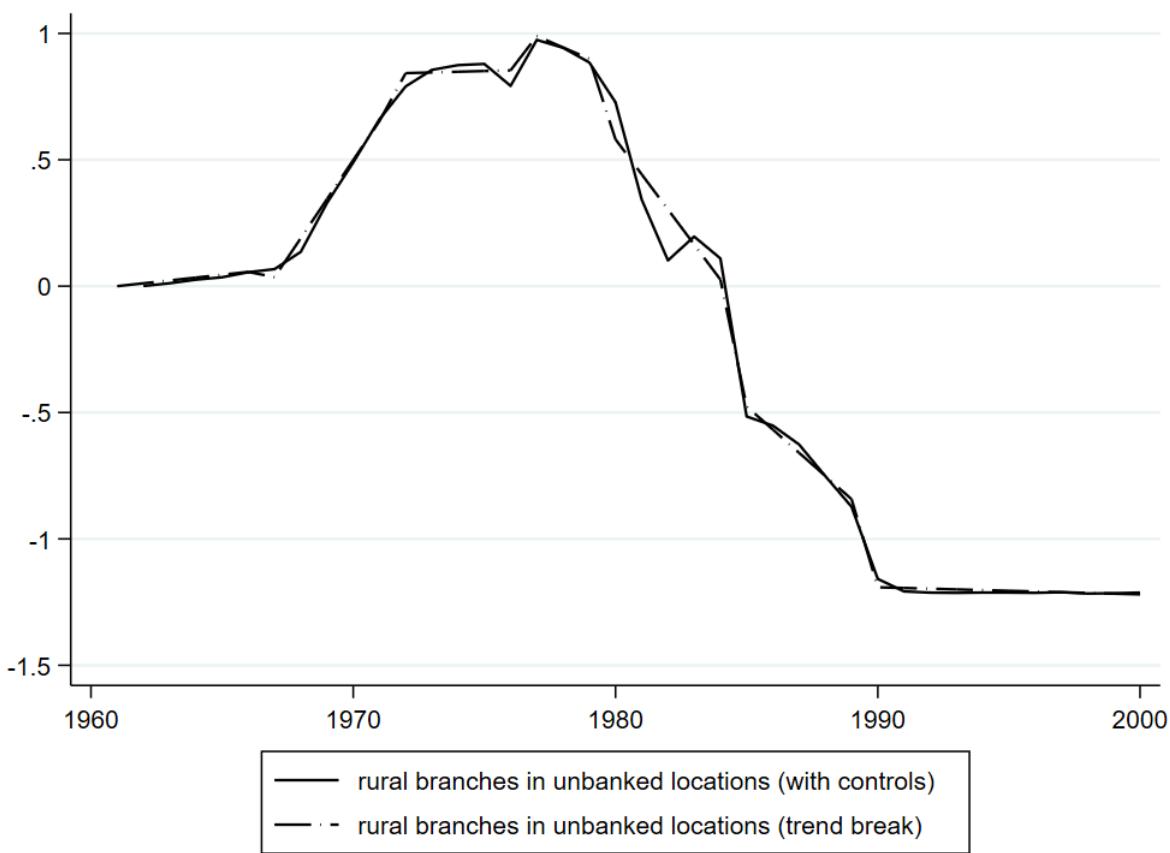


Figure presents the trend reversals obtained from introducing the cut-years in 1967, 1972, 1977, 1980, 1985, and 1990, and their fit to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005). The cut-years were chosen in correspondance to the historic events This figure corresponds to Figure 1 in Burgess and Pande (2005), p.784. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from the equation (1). The series "rural branches unbanked locations (trend break)" graphs the trends obtained from equation (2); the values are reported in Table D1, column 1 and correspond to the results reported in Table (1), column (1).

**History:** In 1967, Gandhi's Ten-Point Programme was announced, paving the path towards priority sector lending, the nationalization of commercial banks, and other interventions. Starting from 1967, the bank licensing policy requiring a specific ratio of new rural bank branches per every urban branch was applied. These bank licensing rules were updated in February 1970 and September 1971. The year 1972 denotes a major shift towards "socialist" interventionist policies after the 1971 war with Pakistan wherein the Soviet Union sided with India while the United States with Pakistan. Next, the 1977 policy applies the banking expansion rule highlighted by Burgess and Pande (2005) while in 1980 the Integrated Rural Development Programme was fully extended and the National Rural Employment Programme was launched. The year 1985 marks the start of the Seventh Five-Year Plan with strengthened though not yet systematic liberalization efforts and the year in which the low profitability of rural bank branches started to be addressed. Finally, in 1990, a major liberalization plan was proposed before the balance of payments crisis of 1991.

Table D1. Banking as a function of initial financial development

	Branches in rural unbanked locations	Rural bank		Branches in banked locations	Credit share	
		Credit share	Savings share		Priority sector	Cooperative
	(1)	(2)	(3)	(4)	(5)	(6)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.02 (0.011)	-0.13 (0.726)	0.38 (0.835)	0.10*** (0.020)	2.17 (1.681)	0.76 (1.219)
Number of Bank Branches per capita in 1961 * (1967 - 2000) trend	0.14** (0.049)	0.55 (1.131)	0.08 (1.236)	0.04 (0.030)	-4.17 (2.397)	0.25 (2.208)
Number of Bank Branches per capita in 1961 * (1972 - 2000) trend	-0.15*** (0.043)	-0.32 (0.469)	-0.83 (0.591)	0.10** (0.039)	2.42* (1.292)	-1.19 (1.288)
Number of Bank Branches per capita in 1961 * (1977 - 2000) trend	-0.05 (0.035)	-0.47 (0.376)	-0.09 (0.178)	-0.16*** (0.044)	-1.17 (1.155)	-0.42 (0.373)
Number of Bank Branches per capita in 1961 * (1980 - 2000) trend	-0.09* (0.046)	-0.59 (0.803)	-0.32 (0.221)	0.02 (0.017)	2.17* (1.183)	0.92* (0.465)
Number of Bank Branches per capita in 1961 * (1985 - 2000) trend	0.05 (0.096)	0.22 (0.476)	0.00 (0.194)	-0.05 (0.036)	-0.79 (1.006)	1.20 (0.700)
Number of Bank Branches per capita in 1961 * (1990 - 2000) trend	0.09** (0.040)	0.69 (0.503)	0.37 (0.239)	0.13*** (0.040)	-0.82** (0.374)	-1.24 (1.144)
Number of Bank Branches per capita in 1961 * Post-1966 dummy	-0.17** (0.060)			-0.15*** (0.046)		-3.52* (1.883)
Number of Bank Branches per capita in 1961 * Post-1971 dummy	0.19** (0.072)	-0.01 (0.492)	0.89* (0.434)	0.01 (0.057)	0.20 (2.045)	1.23 (2.312)
Number of Bank Branches per capita in 1961 * Post-1976 dummy <sup>†</sup>	0.18* (0.100)	-1.60* (0.765)	-0.29 (0.469)	0.20** (0.075)	-2.21 (1.635)	-0.37 (0.911)
Number of Bank Branches per capita in 1961 * Post-1979 dummy	-0.18 (0.135)	0.32 (1.363)	-0.64 (0.667)	0.00 (0.027)	-4.12** (1.881)	0.73 (0.443)
Number of Bank Branches per capita in 1961 * Post-1984 dummy	-0.41** (0.141)	-1.16 (0.867)	-0.40 (0.468)	-0.02 (0.061)	-5.33*** (1.691)	-2.54 (1.566)
Number of Bank Branches per capita in 1961 * Post-1989 dummy <sup>†</sup>	-0.34*** (0.073)	1.84 (1.515)	0.36 (0.594)	-0.33*** (0.077)	-0.87 (2.259)	-5.85 (3.955)
State and year dummies	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.961	0.877	0.863	0.981	0.859	0.812
Observations	636	512	512	636	512	494

Source: This table is a replication of Table 1 in Burgess and Pande (2005), page 785. For replication we used data and methodology provided by the authors. <sup>†</sup>Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: p-values of tests are presented in brackets. Coefficient estimates are from regressions in the form of equation (3). Other controls include state population density, log state income per capita, log rural locations per capita, all measured in 1961. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table D2. Bank branch expansion and poverty: reduced form evidence

	Headcount ratio			Wage	
	Rural	Urban	Aggregate	Agricultural	Factory
	(1)	(2)	(3)	(4)	(5)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	0.52 (1.182)	0.81 (0.677)	0.49 (0.995)	-0.01 (0.014)	0.12** (0.055)
Number of Bank Branches per capita in 1961 * (1967 - 2000) trend	0.48 (1.543)	-0.42 (0.965)	0.36 (1.423)	-0.04 (0.027)	-0.17** (0.063)
Number of Bank Branches per capita in 1961 * (1972 - 2000) trend	-2.15 (1.490)	-1.02 (1.228)	-1.81 (1.378)	0.04 (0.025)	0.06** (0.023)
Number of Bank Branches per capita in 1961 * (1977 - 2000) trend	0.73 (0.811)	0.27 (0.611)	0.52 (0.661)	0.03 (0.037)	-0.01 (0.026)
Number of Bank Branches per capita in 1961 * (1980 - 2000) trend	0.32 (0.542)	0.39 (0.317)	0.43 (0.369)	-0.04** (0.017)	-0.03 (0.020)
Number of Bank Branches per capita in 1961 * (1985 - 2000) trend	0.52 (0.634)	-0.76 (0.642)	0.10 (0.434)	-0.00 (0.026)	0.02 (0.013)
Number of Bank Branches per capita in 1961 * (1990 - 2000) trend	-1.19** (0.532)	0.31 (0.761)	-0.84* (0.418)	0.05* (0.027)	-0.02* (0.010)
Number of Bank Branches per capita in 1961 * Post-1966 dummy	-8.32*** (2.587)	-2.69 (3.054)	-7.31*** (2.420)	0.28*** (0.066)	-0.11 (0.177)
Number of Bank Branches per capita in 1961 * Post-1971 dummy	-3.98* (2.200)	-3.16* (1.646)	-3.90** (1.629)	0.02 (0.059)	0.03 (0.048)
Number of Bank Branches per capita in 1961 * Post-1976 dummy <sup>†</sup>	1.05 (1.584)	-0.41 (0.718)	0.46 (1.180)	0.03 (0.063)	0.04 (0.031)
Number of Bank Branches per capita in 1961 * Post-1979 dummy	-1.11* (0.564)	-0.01 (0.643)	-0.82 (0.554)	0.04 (0.040)	0.03 (0.051)
Number of Bank Branches per capita in 1961 * Post-1984 dummy	3.61*** (1.033)	1.76 (3.216)	3.34** (1.279)	-0.03 (0.043)	0.03 (0.031)
Number of Bank Branches per capita in 1961 * Post-1989 dummy <sup>†</sup>	0.17 (1.619)	1.61 (1.296)	0.25 (1.275)	-0.01 (0.060)	0.00 (0.024)
State and year dummies	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES
Adjusted R-squared	0.841	0.914	0.882	0.905	0.699
Observations	627	627	627	545	553

Source: This table is a replication of Table 2 in Burgess and Pande (2005), page 788. For replication we used data and methodology provided by the authors. <sup>†</sup>Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: p-values of tests in brackets. The first column reports the regression of the annual coefficients at the rural headcount ratio ( $\gamma_t$ , equation (1)) on the annual coefficients on initial financial development ( $\lambda_t$ , equation (2)). The other columns show estimated coefficients from regressions similar to equation (2) but with the respective headcount ratios as dependent variables. For the definition of other control variables see Table 1. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table D3. Bank branch expansion and poverty: instrumental variables evidence

	Headcount ratio										Wage	
	Rural		Urban		Aggregate		1961-1989		1977-2000		Survey years	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
Number branches opened in rural unbanked locations per capita	2.09** (0.785)	1.72 (1.244)	1.66 (2.980)	2.24 (3.025)	1.60 (2.745)	0.12 (0.100)	-0.11* (0.056)	2.95 (3.564)	1.34 (3.120)	12.22 (11.460)		
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.45 (0.312)	-0.45 (0.319)	-0.26* (0.144)	-0.45 (0.270)	-0.01 (0.009)	0.02 (0.014)	0.19 (0.391)	-0.55 (0.346)	-0.55 (0.346)	-0.78 (0.586)		
Number of Bank Branches per capita in 1961 * Post-1966 dummy	-2.14 (3.184)	-2.11 (2.778)	1.20 (2.451)	-1.60 (2.516)	0.11 (0.003)	0.01 (0.165)	-6.08** (2.096)	9.71 (7.346)	9.71 (7.346)	-3.80 (3.127)		
Number of Bank Branches per capita in 1961 * Post-1971 dummy	-4.06 (2.906)	-4.03 (2.455)	-4.11* (2.196)	-3.66* (1.923)	-0.14 (0.084)	-0.02 (0.042)	-7.86* (4.063)	-3.37 (2.347)	-3.37 (2.347)	-8.60** (3.781)		
Number of Bank Branches per capita in 1961 * Post-1976 dummy <sup>†</sup>	-0.46 (1.913)	-0.46 (1.790)	-1.59 (1.281)	-0.71 (1.336)	0.06 (0.006)	0.04 (0.053)	-3.12 (2.307)	-0.02 (1.935)	-0.02 (1.935)	0.86 (5.154)		
Number of Bank Branches per capita in 1961 * Post-1979 dummy	1.07 (1.958)	1.02 (2.154)	2.15 (2.164)	1.52 (1.922)	0.09 (0.083)	-0.14** (0.067)	-0.69 (2.025)	1.22 (2.166)	1.22 (2.166)	9.92 (12.976)		
Number of Bank Branches per capita in 1961 * Post-1984 dummy	8.55*** (1.974)	8.49*** (3.616)	3.02 (4.088)	7.35* (3.761)	0.03 (0.092)	-0.19 (0.114)	6.55* (3.516)	8.68** (3.633)	8.68** (3.633)	20.46 (13.353)		
Number of Bank Branches per capita in 1961 * Post-1989 dummy <sup>†</sup>	0.70 (2.061)	0.67 (2.454)	0.65 (1.380)	0.21 (2.042)	0.14** (0.057)	-0.20* (0.100)	0.00 (0.000)	1.43 (2.471)	1.43 (2.471)	6.76 (6.913)		
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.807	0.847	0.847	0.891	0.883	0.838	0.651	0.871	0.877	0.586		
Observations	627	627	627	627	627	545	553	460	535	375		

Source: This table is a replication of Table 3 in Burgess and Pande (2005), page 789. For replication we used data and methodology provided by the authors. <sup>†</sup>Original paper contains Post-1976 dummy\*(1977-2000) trend and Post-1989 dummy\*(1990-2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: The IV estimates correspond to equation (3) for different dependent variables. For the definition of other controls see Table D1. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table D4. Rural credit and savings and poverty: instrumental variables evidence

	Headcount Ratio					
	Rural		Urban		Aggregate	
	(1)	(2)	(3)	(4)	(5)	(6)
Rural bank credit share	-0.94 (0.753)		-0.43 (0.689)		-0.85 (0.665)	
Rural bank savings share		-0.85 (0.825)		-0.87 (1.237)		-0.89 (0.748)
Number of Bank Branches per capita in 1961 * (1961 - 2000) trend	-0.82 (0.505)	-0.98 (0.559)	-0.53* (0.287)	-0.80 (0.525)	-0.80* (0.429)	-0.99** (0.462)
Number of Bank Branches per capita in 1961 * Post-1966 dummy	7.84 (9.592)	12.84 (10.446)	10.70 (6.293)	15.75* (8.737)	7.58 (8.201)	12.77 (8.786)
Number of Bank Branches per capita in 1961 * Post-1971 dummy	-2.71 (2.080)	-2.56 (2.649)	-2.92 (1.736)	-1.97 (2.374)	-2.47 (1.763)	-2.12 (2.370)
Number of Bank Branches per capita in 1961 * Post-1976 dummy <sup>†</sup>	-0.79 (1.533)	0.14 (1.536)	-1.19 (1.467)	-0.95 (1.800)	-0.96 (1.103)	-0.16 (1.222)
Number of Bank Branches per capita in 1961 * Post-1979 dummy	-1.29 (2.358)	-0.86 (2.002)	0.56 (1.307)	-0.14 (1.745)	-0.59 (2.112)	-0.41 (1.792)
Number of Bank Branches per capita in 1961 * Post-1984 dummy	3.80 (2.418)	5.88*** (1.716)	-0.02 (3.227)	-0.19 (3.297)	3.08 (2.369)	4.70** (1.721)
Number of Bank Branches per capita in 1961 * Post-1989 dummy <sup>†</sup>	2.58 (2.029)	1.43 (2.018)	1.79 (2.470)	1.24 (1.419)	2.02 (1.761)	0.97 (1.506)
State and year dummies	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.775	0.804	0.919	0.891	0.828	0.840
Observations	503	503	503	503	503	503

Source: This table is a replication of Table 4 in Burgess and Pande (2005), page 791. For replication we used data and methodology provided by the authors. <sup>†</sup>Original paper contains Post-1976 dummy\*(1977–2000) trend and Post-1989 dummy\*(1990–2000) trend instead, which is not consistent with the text and the stata code. Therefore, we have changed the variable names accordingly. Note: Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table D5. Bank branch expansion and poverty reduction: robustness checks

	Rural Headcount Ratio		Urban Headcount Ratio	
Number branches opened in rural unbanked locations per capita	3.49 (3.356)	3.97 (3.219)	0.40 (2.285)	0.92 (2.205)
Cumulative land reform	-2.01** (0.784)	-1.97** (0.830)	0.33 (0.392)	0.24 (0.460)
Health and education spending	-5.05 (23.354)	-2.47 (22.425)	24.79 (17.281)	24.38 (17.051)
Other development spending	-14.20 (18.622)	-11.05 (17.528)	11.82 (14.481)	12.38 (12.527)
<b>Fraction legislators from:</b>				
Congress parties		-9.28 (5.505)		0.58 (3.783)
Janata parties		-11.48** (4.321)		1.21 (3.923)
Hindu parties		-0.26 (15.708)		7.37 (13.950)
Hard Left parties		-5.62 (8.046)		3.66 (4.836)
Regional parties		-2.53 (11.366)		0.04 (6.541)
State and year dummies	YES	YES	YES	YES
Other controls	YES	YES	YES	YES
Adjusted R-squared	0.862	0.864	0.910	0.907
Observations	605	603	605	603

Source: This table is a replication of Table 5 in Burgess and Pande (2005), page 792. For replication we used data and methodology provided by the authors. Note: Robust standard errors in parentheses.  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## References

- Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review*, 95(3), 780–795. <https://doi.org/10.1257/0002828054201242>

# Do Rural Banks Matter That Much?

Burgess and Pande (AER, 2005) Reconsidered

NINO BULISKERIA

JAROMIR BAXA

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## Online Appendix E

### Description of Additional Variables:

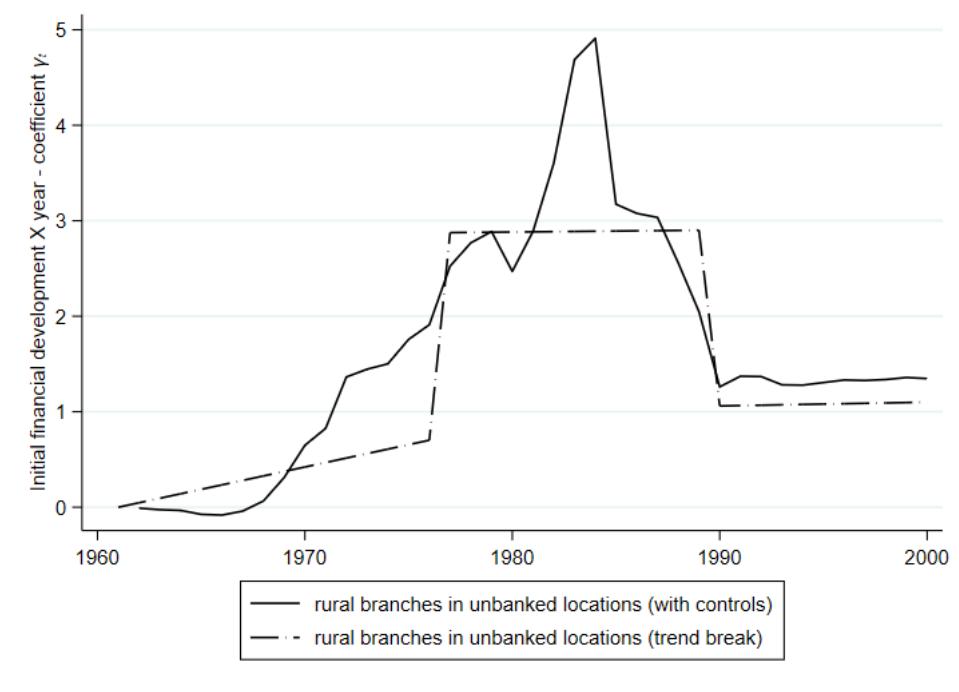
**Infant mortality** - State-wise infant mortality per 1000 new borns.

**Literacy rate** - Literacy rates for 1961 Censuses relate to population aged five years and above.

**Crop production per farmworker** - constructed by multiplying each district's production of each of 12 major crops by an all-India price (Government of India, 1970; 1971). Source: Barnes and Vanneman (1983).

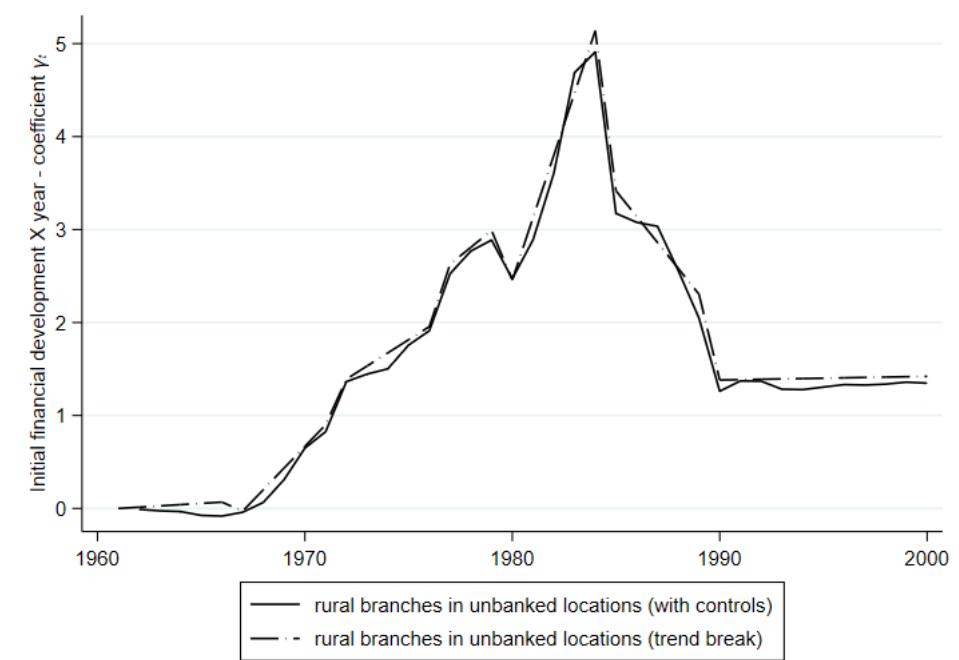
**Percent laborers of rural farmworkers** - the number of landed cultivators and agricultural workers in each district for 1961 (The Union Primary Census Abstract, Government of India) reports. Source: Barnes and Vanneman (1983).

Initial financial development and rural branch expansion  
with cut-years in 1977 and 1990, and additional controls



The figure presents the trend reversals obtained from introducing the cut-years in 1977 and 1990 and additional controls (literacy rate, infant mortality rate, crop production per farmworker, and percent laborers of rural farmworkers, all measured in 1961) in regression (1). This figure shows the fit of cut-years to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005) while controlling for additional characteristics. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from equation (1). The series "rural branches unbanked locations (trend break)" graphs the trends obtained from equation (2).

Initial financial development and rural branch expansion with cut-years  
in 1967, 1972, 1977, 1980, 1985, and 1990, and additional controls



The figure presents the trend reversals obtained from introducing the cut-years in 1967, 1972, 1977, 1980, 1985, and 1990 and additional controls (literacy rate, infant mortality rate, crop production per farmworker, and percent laborers of rural farmworkers, all measured in 1961) in regression (1). This figure shows the fit of cut-years to the coefficient of the effect of initial financial development on branch expansion (under a similar exercise to Burgess and Pande, 2005) while controlling for additional characteristics. Note: The series "rural branches in unbanked locations (with controls)" shows the annual coefficients of the effect of initial financial development on branch expansion from equation (1). The series "rural branches unbanked locations (trend break)" graphs the trends obtained from equation (2).

Table 1. Bank branch expansion and poverty: instrumental variables evidence

	Headcount ratio										Wage	
	Rural		Urban		Aggregate		Rural		Survey years		Agricultural	Factory
							1961-1989		1977-2000			
	OLS	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
Number branches opened in rural unbanked locations per capita	2.09** (0.785)	-1.33 (2.008)	-40.48 (89.433)	20.00 (41.674)	-28.75 (62.497)	0.38 (1.742)	-0.96 (1.362)	-56.53 (115.257)	-15.16 (48.501)	-28.65 (29.310)		
Number of bank branches per capita 1961*(1961–2000) trend	-0.41 (0.304)	1.39 (4.788)	-0.99 (2.172)	0.89 (3.372)	-0.03 (0.091)	0.04 (0.080)	2.09 (6.189)	2.01 (1.827)	2.01 (1.827)	1.03 (2.002)		
Number of bank branches per capita in 1961 * Post-1976 dummy	-0.54 (9.402)	72.36 (179.879)	-52.54 (84.460)	48.76 (125.188)	-0.16 (1.592)	2.06 (3.042)	102.76 (237.138)	6.39 (90.497)	6.39 (74.768)	56.53 (44.232)		
Number of Bank Branches per capita in 1961 * Post-1989 dummy	40.37*** (6.686)	-38.40 (153.207)	31.42 (70.217)	-28.09 (107.535)	0.21 (2.207)	-1.85 (2.268)	0.00 (0.000)	-6.53 (80.503)	-6.53 (80.503)	-24.98 (44.232)		
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared	0.807	0.839	0.096	0.687	0.447	0.801	0.362			0.804	0.535	
Observations	627	511	511	511	511	438	453	377	303	306		

Source: This table is a replication of Table 3 in **burgess2005rural**, page 789 with the additional controls to those in the original exercise include state population density, log state income per capita, log rural locations per capita, all measured in 1961. In addition, we control for literacy rate, infant mortality rate, crop production per farmworker, and percent laborers of rural farmworkers, all measured in 1961. For replication, we used data and methodology provided by the authors. The IV estimates correspond to equation 3 for different dependent variables. The over-identification is tested using the conventional Sargan test. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2. Bank branch expansion and poverty: instrumental variables evidence

	Headcount ratio										Wage			
	Rural			Urban			Aggregate			Survey years				
	OLS		IV	IV		IV	IV		IV	IV		IV		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)				
Number branches opened in rural unbanked locations per capita	2.09** (0.785)	-2.49 (3.565)	-2.88 (2.842)	-4.27 (4.228)	-3.79 (3.107)	0.01 (0.193)	0.05 (0.089)	-2.88 (2.206)	-1.24 (1.684)	-21.09 (25.335)				
Number of bank branches per capita 1961*(1961–2000) trend	0.75 (0.960)	0.76 (1.019)	0.14 (0.666)	0.52 (0.918)	-0.02 (0.015)	0.09*** (0.017)	0.76 (1.405)	0.87 (1.588)	0.99 (1.534)	0.99 (1.534)				
Number of bank branches per capita in 1961 * Post-1986 dummy	-19.93 (15.421)	-19.85 (15.900)	-9.44 (6.303)	-17.12 (13.271)	0.45 (0.394)	0.05 (0.846)	-19.83 (13.604)	0.00 (0.000)	-12.79 (23.296)	-12.79 (23.296)				
Number of Bank Branches per capita in 1961 * Post-1971 dummy	4.69 (12.667)	5.09 (10.602)	-3.86 (6.885)	4.73 (7.211)	0.28 (0.456)	-0.52*** (0.122)	5.11 (14.835)	0.00 (0.000)	30.24 (20.207)	30.24 (20.207)				
Number of Bank Branches per capita in 1961 * Post-1976 dummy	-12.72* (5.958)	-12.35* (5.696)	9.08 (6.733)	-5.93 (4.475)	0.23 (0.217)	-0.41*** (0.091)	-12.33 (7.017)	0.00 (0.000)	-5.49 (53.896)	-5.49 (53.896)				
Number of Bank Branches per capita in 1961 * Post-1979 dummy	-2.59 (5.195)	-2.27 (3.466)	-12.75*** (3.424)	-4.19 (2.435)	-0.31 (0.219)	-0.31 (0.204)	-2.25 (3.075)	-4.30 (8.518)	44.34 (32.084)	44.34 (32.084)				
Number of Bank Branches per capita in 1961 * Post-1984 dummy	11.97 (7.487)	11.54 (7.248)	-1.47 (5.823)	8.69 (6.105)	0.32 (0.254)	-0.13 (0.189)	11.56 (7.947)	12.54 (9.357)	-27.67 (48.104)	-27.67 (48.104)				
Number of Bank Branches per capita in 1961 * Post-1989 dummy	18.42 (11.257)	17.87 (12.456)	-13.68 (7.777)	8.72 (11.127)	-0.24 (0.210)	-0.28 (0.226)	0.00 (0.000)	19.15* (8.992)	-7.52 (36.777)	-7.52 (36.777)				
State and year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
Other controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
Adjusted R-squared	0.807	0.855	0.855	0.900	0.880	0.914	0.850	0.843	0.893	0.652				
Observations	627	511	511	511	438	453	377	303	306					

Source: This table is a replication of Table 3 in Burgess and Pande (2005), page 789 with the additional controls to those in the original work and cut years based on historic events in 1967, 1972, 1977, 1980, 1985 and 1990, see details in Online Appendix D. For the definition of all the controls see Table E1. For replication we used data and methodology provided by the authors. The IV estimates correspond to equation (3) for different dependent variables. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## References

- Barnes, D., & Vanneman, R. (1983). Agricultural development and rural landlessness in India. *Studies In Comparative International Development, 18*(1-2), 90–112.
- Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review, 95*(3), 780–795. <https://doi.org/10.1257/0002828054201242>