The Division of Spoils: Rent-Sharing and Discrimination in a Regulated Industry

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Outline

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The Questions

1. How are rents divided between owners and workers?
2. Do firms share their rents with workers, even in the absence of unions?
3. If so, are these rents distributed equally across workers, or do some groups benefit more than others?

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1. How are rents divided between owners and workers?
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- Why answering these questions is difficult?
  - Difficulty of isolating rents paid to workers from compensating wage differentials, payments to unobserved human capital, and efficiency wages.

Outline

Becker (1957)

- Discrimination raises costs and is therefore difficult to sustain in a competitive market.
- Increased market competition should reduce firms ability to allocate rents to different groups; that is, the ability to discriminate should decline as rents decline.

Market Competitiveness & Discrimination

Literature Review

- Ashenfelter and Hannan (1986)
  - Negative and statistically significant relationship between market concentration and the share of female employment in each bank.
- Black and Brainerd (1999)
  - Increased product market competition from international trade increased the relative wages of women in manufacturing industries.

This Paper

- This paper tests whether rents fostered by regulation were shared with labor, and whether firms were discriminating by sharing these rents disproportionately with male workers.
- Banking deregulation provides a valuable laboratory to explore the effects of regulation on rent-sharing; because states deregulated at different times, we can control for both fixed differences across states as well as trends in wages in our statistical model.

Outline

A Brief History of Bank Regulation

- Restrictions on banks ability to expand within a state through branching were initially imposed by the states in the 19th century.
- Until the middle of the 1970s, regulations constrained banks ability to enter new markets.
- Over the subsequent 25 years, states gradually lifted these restrictions.

Intra-and inter-state expansion

- Intrastate Expansion
  1. Multibank holding companies permitted
  2. Intrastate branching via M&A
  3. Unrestricted intrastate branching permitted, thereby allowing banks to enter new markets by opening new branches
- In most cases, branching by M&A occurred first, then unrestricted branching deregulation occurred soon thereafter.
- Interstate Expansion
  - Interstate banking became widespread in the mid-1980s when state legislatures passed bills allowing bank holding companies to acquire out-of-state banks on a reciprocal basis with other states.

Take a Look

State	Multibank holding companies permitted	Intrastate branching via M&A	Unrestricted intrastate branching permitted	Interstate banking permitted
Alabama	<1970	1981	1990	1987
Alaska	<1970	<1970	<1970	1982
Arizona	<1970	<1970	<1970	1986
Arkansas	1985	1994	**	1989
California	<1970	<1970	<1970	1987
Colorado	<1970	1991	**	1988
Connecticut	<1970	1980	1988	1983
Delaware	<1970	<1970	<1970	1988
DC	<1970	<1970	<1970	1985
Florida	<1970	1988	1988	1985
Georgia	1976	1983	**	1985
Hawaii	<1970	1986	1986	**
Idaho	<1970	<1970	<1970	1985
Illinois	1982	1988	1993	1986
Indiana	1985	1989	1991	1986
Iowa	1984	**	**	1991
Kansas	1985	1987	1990	1992
Kentucky	1984	1990	**	1984

Figure 1: Year of deregulation of restrictions on geographical expansion, by state

Outline

Empirical Strategy

- Empirical strategy is based on the idea that state-level restrictions on banks' ability to expand across local markets inhibited competition and allowed the industry to enjoy rents.
- Using the deregulation of branching and interstate banking restrictions to identify shocks to the competitiveness of banking markets (that are exogenous to conditions in the labor market) and see how the labor market responded.
- To test for rent-sharing, we estimate whether compensation and wages in banking fell after deregulation (controlling for trends).

Data

1. Reports of Income and Condition (the ”Call Reports”).
   - To estimate how average compensation for all workers in banking changed following deregulation.
2. Current Population Survey (CPS)
   - Allowing us to explore whether certain kinds of workers experienced greater changes in wages than others.
   - In particular, we focus on changes in the relative compensation of women following deregulation.

Outline

Overall Compensation in Banking

Results

	Simple specifications		Specifications with average nonbank log earnings		Specifications with unit banking interaction terms	
Post-M&A branching deregulation	−0.040*	—	−0.037*	—	−0.010	—
	(0.007)		(0.016)		(0.007)	
Post-interstate banking	−0.003	−0.005	−0.015	−0.017	−0.009	−0.012
	(0.010)	(0.010)	(0.014)	(0.014)	(0.011)	(0.010)
Branching deregulation index	—	−0.018*	—	−0.020*	—	−0.006*
		(0.003)		(0.009)		(0.004)
Average log earnings for nonbank workers	—	—	0.708*	0.718*	—	—
			(0.099)	(0.102)		
Unit banking*post-M&A branching	—	—	—	—	−0.086*	—
					(0.009)	
Unit banking*deregulation index	—	—	—	—	—	−0.043*
						(0.005)
N	1,336	1,311	947	924	1,336	1,311
F (H_0: all regulatory variables = 0)	2.23	1.86	3.10*	3.14*	4.46*	4.33*
R^2 (within)	0.67	0.67	0.74	0.75	0.69	0.69

Figure 2: Panel regression relating the log fo total earnings for banking employees to deregulation indicators, time effects, and state effects

Overall Compensation in Banking

Results

- In the simple model, compensation falls by 4% following branching deregulation.
- No statistically significant change following interstate banking deregulation.
- A state permitting unrestricted branching would have compensation 5.4% lower than a state permitting neither branching nor MBHC's.
- Compensation falls by 9.6% when formerly unit banking states deregulated.

Further test for rent-sharing

	Continuous profit measure	Discrete profit measure
ROE	0.622*	—
	(0.012)	
Post-M&A branching deregulation*ROE	−0.258*	—
	(0.020)	
Above-median ROE indicator	—	0.030*
		(0.001)
Post-M&A branching deregulation*above-median ROE indicator	—	−0.025*
		(0.002)
N	251,729	251,729
F (H_0: all regulatory variables = 0)	629.6*	628.9*
R^2 (within)	0.010	0.003

Figure 3: Panel regression relating the log of total earnings for banking employees to profits in regulated and unregulated environments

Further test for rent-sharing
Results

- The relationship between measured profits and compensation flattened substantially after deregulation.
- High-profit banks paid their workers about 3% more than did low-profit banks during the regulated years.
- But during the deregulated years they paid their workers less than 1% more than did low-profit banks.

Wage Effects Using Individual-Level Data

	Simple specifications		Specifications with unit banking interactions	
Post-M&A branching deregulation	−0.061*	—	−0.051*	—
	(0.011)		(0.014)	
Post-interstate banking	−0.0002	−0.002	−0.0001	−0.002
	(0.015)	(0.015)	(0.015)	(0.017)
Branching deregulation index	—	−0.030*	—	−0.022*
		(0.006)		(0.007)
Unit banking*post-M&A branching deregulation	—	—	−0.018	—
			(0.016)	
Unit banking*branching deregulation index	—	—	—	−0.018*
				(0.007)
N	809,367	790,565	809,367	790,565
F (H_0: all regulatory variables = 0)	14.1*	13.1*	9.6*	10.5*
R^2	0.38	0.38	0.38	0.38

Figure 4: Impact of deregulation on the wages of banking employees (CPS data)

Discrimination

- The Becker model predicts that market competition will drive out discrimination, so an exogenous shock to competition through deregulation should lead to an improvement in women's relative labor market position if there was discrimination during the regulated period.
- To test this idea, we estimate the wage equation for female and male banking employees separately.

Discrimination

Results

	Females only		Males only	
Post-M&A branching deregulation	−0.029*	—	−0.125*	—
	(0.012)		(0.024)	
Post-interstate banking	0.012	0.009	−0.026	−0.027
	(0.017)	(0.017)	(0.027)	(0.029)
Branching deregulation index	—	−0.017*	—	−0.056*
		(0.006)		(0.013)
N	336,121	328,208	473,246	462,357
F (H_0: all regulatory variables = 0)	3.42*	4.23*	14.33*	10.14*
R^2	0.28	0.28	0.34	0.34

Figure 5: Impact of deregulation on the wages of banking employees
Differential effects for men and women (CPS data)

Discrimination

Results

- For Women
  - In the simple model, womens wages fell by 2.9% after branching deregulation.
  - Moving from a completely regulated to a completely unregulated environment reduces female wages by 5.1%.
- For Men
  - Male wages fell by 12.5% after branching deregulation in the simple specification.
  - 16.8 % fall by moving from completely restricted to completely unrestricted branching.
- The decline in men's wages is statistically different from the decline in women's wages at the 1% level.

Discrimination

- Discriminating employers could also prefer to keep women in lower positions than their skills would warrant.
- We therefore test whether the proportion of managerial positions held by women changes after deregulation.

Discrimination

Results

	Logit of share of managerial positions held by women (state-level aggregate)	Managerial workers		Nonmanagerial workers		Nonmanagerial workers (tellers only for banking)	
		Female	Male	Female	Male	Female	Male
Post-M&A branching	0.271*	−0.027	−0.089*	−0.035*	−0.194*	−0.005	−0.290*
	(0.161)	(0.024)	(0.025)	(0.012)	(0.042)	(0.023)	(0.091)
Post-interstate banking	0.131	0.033	−0.026	0.013	−0.015	0.008	0.030
	(0.174)	(0.041)	(0.028)	(0.018)	(0.050)	(0.031)	(0.117)
N	944	110,100	146,477	226,021	326,769	217,710	324,878
F (H_0: all regulatory variables = 0)	1.65	0.83	6.69*	4.47*	11.14*	0.05	5.21*
R^2	0.20	0.23	0.26	0.16	0.27	0.16	0.27

Figure 6: Impact of deregulation on occupational distribution and wages by sex (CPS data)

Discrimination

Results

- The increase estimated from the logit model represents an increase in womens share of managerial positions of about 4%.
- Women's relative wages improved after deregulation, in part because relative wages in low-skilled occupations improved, and in part because women were moved into higher-skilled occupations.

Outline

Robustness Checks

- Timing
  - Declines in wages appear to occur only after deregulation, and those declines appear to be permanent.
- Employment
  - A decline in the demand for banking workers cannot explain the drop in wage.
- Unobserved Skills
  - There is no change in observable skills toward younger, less-educated workers after deregulation, so it does not seem likely that changing unobservable skills is the cause of the decline in wages.

Outline

Rent-Sharing and Unions

- This is the first study of deregulation to find declines in labor rent-sharing absent unions.
- Rose (1987)
  - Estimated losses to workers following deregulation of the trucking industry.
  - Two-thirds of rents in the industry went to labor, largely due to the strength of unions.
- Here, prior to deregulation, about 25% of rents went to labor, and the other 75% to owners.
- Thus, although rents may be shared even absent unions, labor appears to receive a higher fraction when unionized.

Outline

To Sum Up

- It is difficult to isolate the effects of product market competition on the labor market.
- Banking deregulation provides a unique opportunity to explore these effects.
  - A shock to market competitiveness
  - Occurred on a state-by-state basis at different times over the last two decades.

Conclusion

- Male wages fell by about 12% after deregulation, whereas womens wages fell by only 3%.
- A larger decline in wages in states that had tighter *ex ante* restrictions on bank expansion (the unit banking states).
- Thus, prior to deregulation, rents were shared disproportionately with male workers. We also find that womens share of employment in managerial positions increased following deregulation.

✓ Becker was right!

Thanks for your attention!