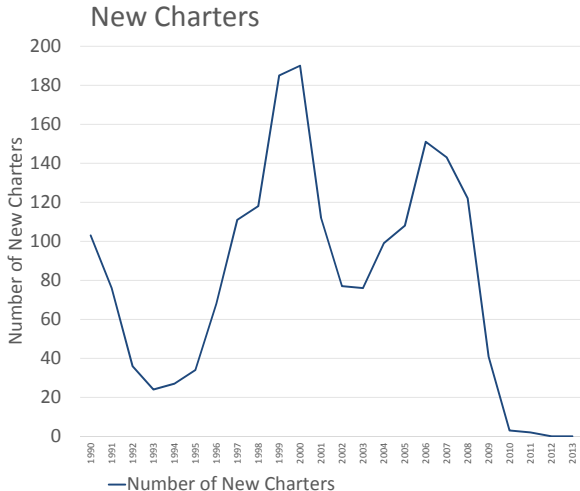**Community Banking**
in the 21st Century

Where Are All the New Bank Charters?
Regulatory Burden and New Charter Creation

By Robert Adams* (FRB)
& Jacob Gramlich* (FRB)

* Views expressed are those of the authors, not the Board of Governors or its staff.

CSBS SINCE 1902
CONFERENCE OF STATE BANK SUPERVISORS

Motivation

New Charters

Toomey and others: Is the recent decline in new charters due to post-crisis regulation?
(Overly-burdensome regulation could harm firms and consumers)

Motivation

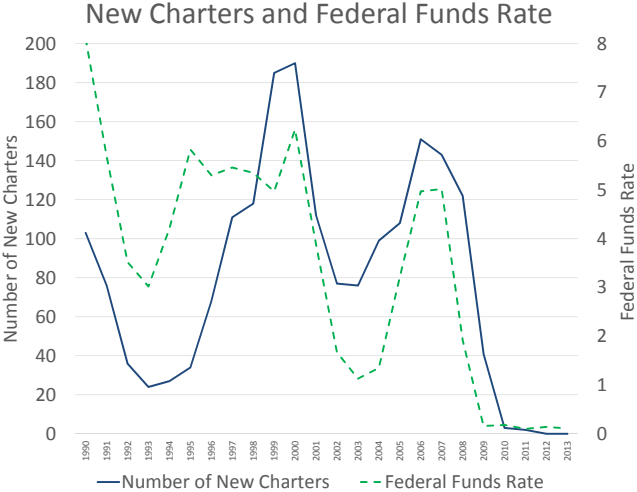New Charters

Toomey and others: Is the recent decline in new charters due to post-crisis regulation?
(Overly-burdensome regulation could harm firms and consumers)

Motivation
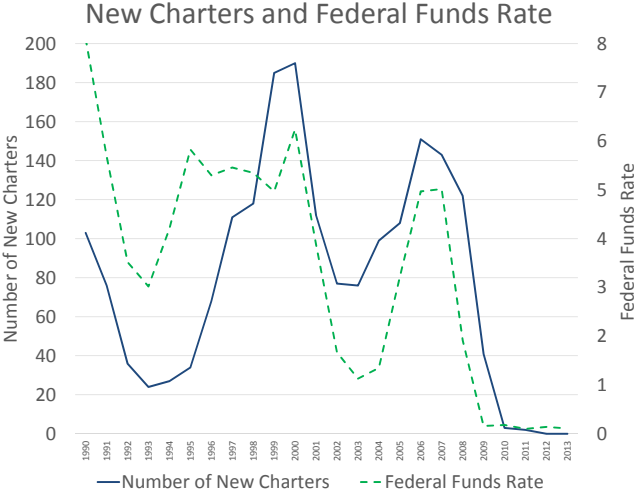

New Charters and Federal Funds Rate
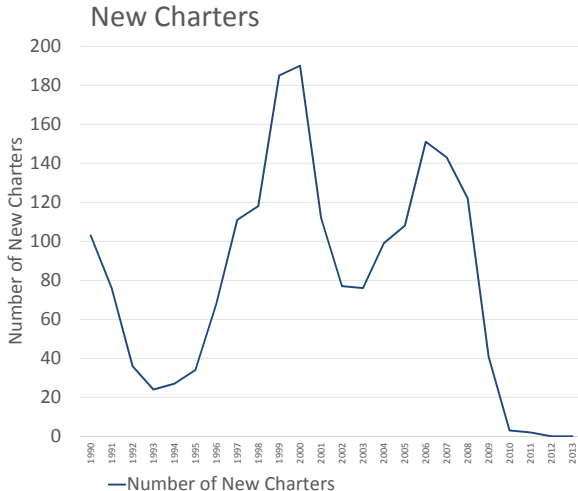
Other factors influence bank profitability (and thus new charter formation)

Motivation

New Charters and Federal Funds Rate

Other factors influence bank profitability (and thus new charter formation)

New Entrants' Exposure

Net Interest Margins by Bank Size and Federal Funds Rate

Legend: Large Banks, Medium Banks, Small Banks, New Charters, Fed Funds Rate
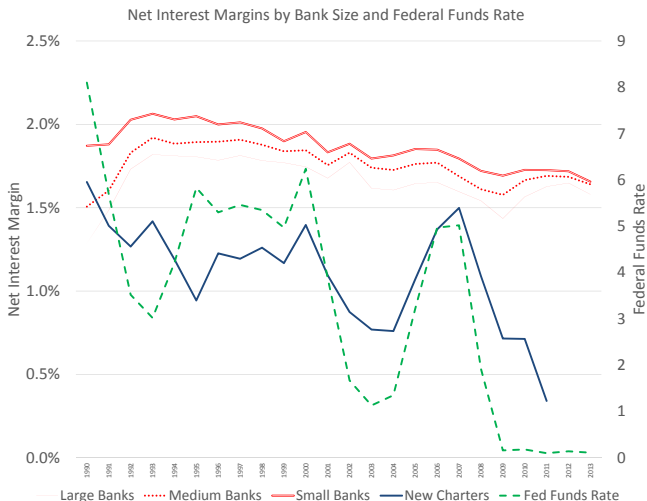
New entrants more exposed to low returns on interest bearing assets

Question & Approach

- Question: What proportion of recent decline is due to regulatory v. non-regulatory factors?

- Approach
  - No obvious measure for regulation
    - Mortgage banking rules, regulatory compliance changes, activity restrictions, liquidity and capital requirements, and uncertainty about future extension and implementation of regs
  - Regress new charters on observable (non-reg) determinants
    - Interest rates, macroeconomic vars
  - Predict charters using non-reg observables
  - Interpret remaining decline as upper bound of reg effect

Preview of Results

- Non-regulatory observables explain:
  - 90% of decline in most and preferred specifications
  - only 70% in some specs, but specs are less compelling
  - Suggest big role for non-reg factors in current decline

- But role of regulation when economy bounces back?
  - Estimates suggest an 86% decline?

Why New Charters?

Can't incumbents expand and replace them?

New charters...

1. ...are not replaced by incumbents; reflect broader trend
   More
2. ...may serve niche (<10% the size, single mkts, loan portfolios)
   More
3. ...may be efficient (LHS '08)

More Background on New Charters

Model of New Entry

$$Y_{imt} = \begin{cases} 1, & \text{if } \beta_1 X_{mt} + \beta_2 i_t + \beta_3 R_{mt} + \epsilon_{imt} > 0 \\ 0, & \text{otherwise} \end{cases} \tag{1}$$

- Y_{imt} entrant i enters county m in year t
  - County-level demog data
  - County close to antitrust mkts
- X_{mt} demographics (pop, income, unemployment, credit)
- i_t interest rates (short, long)
- R_{mt} measures of regulation
  - $\varnothing$ in most specs (sample ends 2008)
  - Post-2009 dummy in other specs
- Probit and ordered probit yield same results
  - 97.7% county-years have 0 new charters, 99.5% ≤ 1

Model of New Entry - cont.

- Not a dynamic equilibrium
  - Assumes other competitors make no entry/exit decisions, which is only true in 83% of obs

- More related to static, cross-sectional entry
  - Bresnahan & Reiss 1991, Cohen & Mazzeo 2007
  - Though use panel, assume zero-profit condition held last period

Data - Summary Statistics

	Obs	Mean	Median	Min	Max	S.D.
Federal Funds Rate*	39712	2.31	1.67	0.1	6.24	2.05
Treasury Note (10 Year) - FFR*	39712	1.72	1.74	-0.39	3.1	1.28
% Change Population*	39712	0.46	0.33	-21.6	22.94	1.53
Population**	39712	95.59	25.63	0.42	9889	306.8
People Per Square Mile**	39712	0.24	0.04	0	70.35	1.71
Per Capita Income**	39712	10.33	10.31	9.33	11.76	0.22
Unemployment Rate*	39712	6.12	5.5	0.7	30.6	2.76
Change Number Unemployed**	39712	0.19	0.01	-53.31	193.7	2.21
Mean Credit Score	39712	685.5	688.9	580.4	772.3	27.84
Mean Inquiries	39712	1.5	1.41	0.21	3.98	0.59
Delinquency Rate*	39712	1.9	1.82	0	13.04	0.9
Change Mean Credit Score	39712	1.28	1.39	-29.14	35.56	3.09
Change Mean Inquiries	39712	-0.03	-0.01	-1.33	1.34	0.18
Change Delinquency Rate*	39712	-0.04	-0.02	-11.11	11.11	0.88
HHI	39712	3134	2515	324.8	10000	2085
% Small Bank Deposits*	39712	58.06	60.99	0	100	33.26
Post 2009	39712	0.23	0	0	1	0.42

* denotes a 0-100 scale.

** denotes thousands.

Regression Results

Market	County	County
Regression Type	Ord Probit	Ord Probit
Sample Start	2000	2000
Sample End	2008	2012
N	27,719	40,043
R2	0.2690	0.3020
ln_fedfunds	0.0828*	0.0663**
ln_tnote10yr	0.6517***	0.7293***
ln_pop	0.5060***	0.4995***
p_c_pop	0.0525***	0.0518***
popdensity	-0.0091*	-0.0065
percapitainc	0.0116***	0.0107***
c_percapitainc	-0.0049	-0.0077
unemp_rate	-0.0240*	-0.0224*
mean_credit_score	-0.0005	0.0008
mean_inquiries	0.2455***	0.2676***
delinq_rate	-0.0564	-0.0391
post2009		-0.9997***
Const (cut1 if Ord Prob)	8.8923***	9.8624***
2006 pred (actual = 153)	159	157
2007 pred (actual = 147)	162	159
2008 pred (actual = 122)	105	104
2012 pred (wo reg effect)	18	16
Non-reg eliminates all but…	11%	10%
2007 pred (w reg effect)	.	23
Reg eliminates all but…	.	14%

- Signs expected, coeffs signif
- Predictions reasonable
- Non-reg explains all but 11% or 10% of decline
- But see 14% in 2nd spec
- Robustness
  - Longer sample
  - Func. form regressors
  - Different reg cutoff
 - Lags
  - Probit
  - State

Objections to Model

- Omitted variable biases
    1. Demogs and interest rates mediated through reg in past
        ★ But no major restrictive regs in past
        ★ And no obvious correlation of past regs with *i*
    2. Predicting out of sample with interest rates
        ★ But not so far out of sample (2003)
        ★ Linear spec should understate non-reg role, but robust
    3. Other changes in 2009 having increased entry probability?

Conclusion

- Demand and interest rates are currently suppressing new charters

- Could regulation have a role if the economy strengthens?

Expansion Also Declining

Branch Expansion and Federal Funds Rate
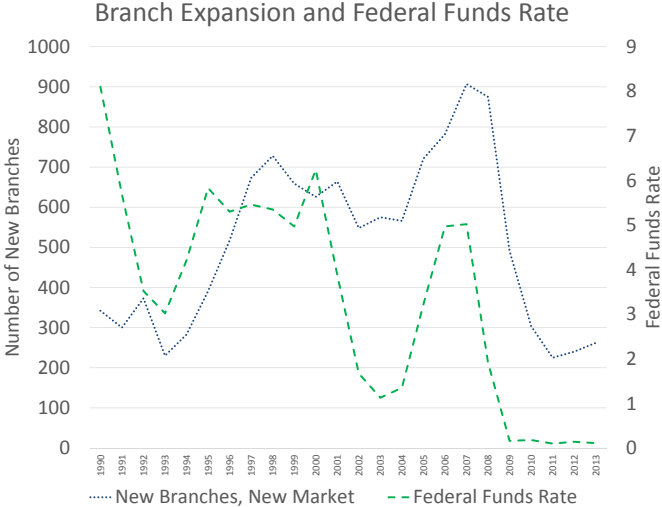
	New Charters	All Banks
Assets (mean)	$34,179	$984,850
(med)	$26,629	$106,944
(max)	$365,540	$1,610,000,000
(min)	$3,454	$989
Deposits	$22,899	$662,356
	$17,042	$91,016
	$299,245	$1,060,000,000
	$0	$0
Net Interest Margin[1]	1.2%	1.8%
	1.2%	1.8%
	-0.6%	-9.0%
	6%	30%
Net Non-Interest Margin[2]	-3.0%	-1.1%
	-2.5%	-1.1%
	17.7%	37.6%
	-37.0%	-52.1%
Single-Market Bank	0.98	0.67
	1	1
	1	1
	0	0
Real Estate Loans/Assets	11.2%	26.7%
	7.7%	22.1%
	95.0%	97.8%
	0.0%	0.0%
C&I Loans/Assets	10.5%	8.4%
	8.1%	6.8%
	52.8%	85.1%
	0.0%	0.0%
Consumer Loans/Assets	3.5%	6.4%
	1.8%	4.8%
	58.4%	99.6%
	0.0%	0.0%
Percent Rural	14.7%	22.8%
Percent Micropolitan[3]	5.3%	1.3%
Percent MSA	80.0%	75.8%
N	1906	202,982

All dollar amounts are in thousands of dollars.

[1] [(Interest Revenue) - (Interest Cost)] / Assets

[2] [(Non-Interest Revenue) - (Non-Interest Cost)] / Assets

[3] Core urban population of 10,000 - 50,000.

Back

Background on New Charters

- Modest application fee compared to startup costs ($10k v $3M)
- Result in branch within a year
- No higher failure rate than older branches (2006-2013 failures)

Back