

Do States with Stronger Property Rights Protection Encourage More Entrepreneurship? Revisiting States' Responses to *Kelo*

Tianning Li¹, Ramon P. DeGennaro² (1. Hood College, Frederick, MD 21701, USA; 2. University of Tennessee, 423 Stokely Management Center, Knoxville, TN 37996, USA)

Abstract: Do states with stronger property rights protection attract more entrepreneurial activities? States' different responses to the U.S. Supreme Court's decision in *Kelo v. City of New London* to limit local governments to take private property via eminent domain provides a natural experiment to answer this question. We examine whether the different states' responses to *Kelo* have impact on states' shares of national entrepreneurial activities. Our preliminary result shows that states with stronger property rights protection do not necessarily have comparative advantages in attracting entrepreneurial activities over other states. We suggests reasons why this may be so.

Key words: *Kelo*; eminent domain; property rights; entrepreneurship JEL codes: M13, D23, K20, K30, H41, H49

1. Introduction

In 2005, the U.S. Supreme Court's *Kelo v. City of New London* ruling allowed governments to take private property for transfer to new *private* owners for the purpose of promoting "economic development".¹ Since *Kelo*, over forty states have passed laws to limit government takings via eminent domain. However, some states passed laws that are only symbolic.

Do states with stronger property rights protection attract more entrepreneurial activities? The individual state's different responses to the U.S. Supreme Court's decision in *Kelo* provides a natural experiment to answer this question.

DeGennaro and Li (2013) find that states' responses to *Kelo* do not affect state-level business creation rate in a statistically reliable way. In this paper we extend that analysis by studying the impact of different states' responses on states' shares of national entrepreneurial activities. Our results show that states with stronger property rights protection do not have higher non-farm proprietor employment than other states, indicating that states that enact strong laws have no comparative advantages of attracting entrepreneurial activities over those that do not. Following DeGennaro and Li (2013), this could be due to any of several reasons, including an omitted

Tianning Li, Ph.D., Assistant Professor of Finance, Hood College; research areas/interests: finance, entrepreneurship. E-mail: li@hood.edu.

Ramon P. DeGennaro, CBA Professor of Banking and Finance, University of Tennessee; research areas/interests: financial markets, entrepreneurship, investments, and prediction markets. E-mail: rdegenna@utk.edu.

¹ 505 U.S. 469 (2005), hereafter, *Kelo*.

variable problem tracing to unobservable compensation for the taking. With appropriate compensation or the right size public use benefits, business owners could be indifferent as the probability of takings increases. However, these two variables are unobservable. Another possible explanation is that states' responses to *Kelo* do not have impact on business owners.

2. Literature Review

Many states only enacted symbolic laws with loopholes that weaken the protection of property rights in response to *Kelo*. For example, Sandefur (2006) points out that Alabama's eminent domain law allows politicians to declare an area blighted "whenever it fails to perform economically up to a standard that they would prefer to see". Such language provides no protection of property rights. According to Lopez and Totah (2007), besides Alabama, the laws enacted by Maine, Minnesota, Nebraska, Texas, Vermont and Wisconsin offer similarly weak protection. A meaningful law might specifically exclude economic development as a reason for taking.

López, Jewell and Campbell (2009) find that whether states enact legislation is associated with voter backlash against *Kelo*. However, whether the law has teeth is unrelated to voter backlash. Carpenter and Ross (2010) find that state trends in construction employment, building permits and property taxes were not affected by eminent domain legislation. They also find that the strength of property rights legislation does not affect this conclusion.

DeGennaro and Li (2013) develop a theoretical model that shows business creation can be encouraged, unaffected, or discouraged as the probability of takings increases, depending on the level of compensation and the owners' public use benefits. Their empirical test examines the effects of *Kelo* and states' subsequent responses to it on the Kauffman Index of Entrepreneurial Activity (*KIEA*), which reports the percentage of the adult, non-business-owner population that starts businesses each month during the period from 1996 to 2008. They find that levels of business creation are not affected by the enactment of a state-level law restricting takings or enactment in the previous 3 years. They report that one possible explanation is that it might take more than three years for entrepreneurs to observe the effects of *Kelo* and a state's legislative response to it on takings. Under this interpretation, entrepreneurs who have been preparing to open a business for years will carry on their plans without being affected by *Kelo* and the states' enactment on business creation. An important policy interpretation is that DeGennaro and Li's results indicate that states can pass laws protecting property rights without fear of retarding business formation, so long as compensation is economically fair.

3. Methodology

DeGennaro and Li (2013) model the utility of a business owner as a function of his investment, the probability of the government taking it, compensation if it is taken, and his share of the benefits of the public project resulting from the taking. Their model allows them to identify the circumstances under which *Kelo* and subsequent state laws, along with the rates of government compensation for takings and the entrepreneur's share of excess public use benefits, affect business formation. If governments insufficiently compensate the business owner but his loss is no more than his excess public use benefits, then the business owner's utility increases or remains unchanged as the probability of taking increases. If governments insufficiently compensate the business owner, and his loss is more than his excess public use benefits, utility decreases as the probability of taking

increases. When governments overcompensate for the taking, utility increases as the probability of taking increases. The business owner misses the excess public use benefits and possibly a premium over the market value of his business if it is not taken. The business owner's utility increases as governments pay a higher price for the business or his excess public use benefits increase. Their model also suggests that the business owner can still maximize his utility by investing in a sub-optimal property if he is fairly or over compensated by the government. However, he has to invest in a property that offers a return higher than the market rate when he is under-compensated by the government.

DeGennaro and Li (2013) predicts that business creation can be encouraged, unaffected, or discouraged as the probability of takings increases, depending on the level of compensation for the takings and the magnitude of the owners' public use benefits. Because the utility of owning a business is not observable empirically we use non-proprietor employment as a proxy for utility in our study. We assume more people start businesses as the utility from doing so increases. We examine the relation between the national share of state-level non-proprietor employment and the states' responses to *Kelo*, which proxies for the probability of taking.

Our basic model tests the impact of states' responses to *Kelo* on national share of non-farm proprietor employment, instead of on the levels of business creation, which was tested by DeGennaro and Li (2013). The result will give us additional information on whether states' strong responses to *Kelo* give these states advantages over other states.

$$Proppercent_{it} = b_0 + b_1 Enact_{it} + b_2 Population percent_{it} + b_3 Currenttax_{it} + b_4 Percapitain come_{it} + b_5 Propertytax_{it} + e_{it}$$
(1)

Where

 $Proppercent_{it}$ is the non-farm proprietor employment of state *i* at time *t* as a percent of US total employment. $Proplevel_{it}$ is the non-farm proprietor employment of state *i* at time *t*. We use it as a robust check.

 $Enact_{it}$ is a dummy variable that equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is weak and 1 if state *i* enacts strong law that limit eminent domain takings in year *t*.

Populationpercent_{it} is state *i*'s population in year *t* as a percent of US total population.

*Populationlevel*_{it} is state *i*'s population in year *t*. We use it as a robust check.

Currenttax_{it} is the current personal tax (federal, state, and local) of state *i* in year *t*.

 $Percapitaincome_{it}$ is the per capita income of state *i* in year *t*.

Propertytax_{it} is the state and local property tax of state i in year t.

It is very likely that some individual specific factors for starting someone's own business are unobservable and correlated with the independent variables in our model. Therefore, OLS might not be consistent. We use fixed effects to control for this unobserved heterogeneity. We also employ the difference-in-difference technique to study the change in states' non-farm proprietor employment as percent of US total between post and pre-*Kelo* periods in states that enact strong laws compared to the change in those states that do not.

When we use difference-in-difference methodology, our model takes a different form:

 $Proppercent_{it} = b_0 + b_1 Enactstate_{it} + b_2 Postkelo_{it} + b_3 Interaction + b_4 Population percent_{it} + b_5 Currenttax_{it}$

+ $b_6 Percapitaincome_{it} + b_7 Propertytax_{it} + e_{it}$ (2)

Where

 $Enactstate_{it}$ is a dummy variable equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is weak and 1 if state *i* enacts strong law that limit eminent domain takings.

Postkelo_{it} is a dummy variable equals 0 if year t is before 2004 and 1 if year t is after 2008.

Interaction is the product of Enactstate_{it} and Postkelo_{it}.

In the difference-in-difference regression b_1 estimates the difference in *Enactstate_{it}* between states that protect property rights and those do not. b_2 estimates the difference in *Postkelo_{it}* between the post-*Kelo* and pre-*Kelo* time periods. b_3 is the difference-in-difference estimate that we focus on. If b_3 is statistically significant, then it indicates that states' non-farm proprietor employment significantly changed after states' strong responses to *Kelo*, and this change is different than the change in the states that do not respond or respond only symbolically.

4. Data

We collect both levels and national shares of non-farm proprietor employment, current personal tax, per capita personal income, and state and local personal property tax on the state-level from the Bureau of Economic Analysis. There are 1173 observations in our dataset which covers a period from 1990 to 2012.

Table 1 presents the summary statistics. The average state-level non-farm employment is 541,817, around 1.96 percent of the US total. The District of Columbia in 1994 has the minimum non-farm employment of 36,236, which is also the minimum percentage level (0.17% of the national total). California in 2012 has the maximum non-farm employment of 5,143,934, which is 13.42% of the national total. As percent of US total, California in 1991 is the state that has the largest non-farm proprietor employment, which is about 15.05 percent of the national total.

Table 1 Summary Statistics

Proppercent_{it} is the non-farm proprietor employment of state *i* at time *t* as a percent of US total employment. *Proplevel_{it}* is the non-farm proprietor employment of state *i* at time *t*. We use it as a robust check. *Enact_{it}* is a dummy variable that equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is weak and 1 if state *i* enacts a strong law that limits eminent domain takings in year *t*. *Populationpercent_{it}* is state *i*'spopulationin year *t* as a percent of US total population. *Populationlevel_{it}* is state *i*'s population in year *t*. We use it as a robust check. *Currenttax_{it}* is the current personal tax (federal, state, and local) of state *i* in year *t*. *Percapitaincome_{it}* is the per capita income of state *i* in year *t*. *Propertytax_{it}* is the state and local property tax of state *i* in year *t*. *Enactstate_{it}* is a dummy variable which equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is year *t*. *Propertytax_{it}* is the state and local property tax of state *i* in year *t*. *Percapitaincome_{it} is a dummy variable which equals 0 if state i does not respond to Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* enacts a strong law that limits eminent domain takings. *Postkelo_{it}* is a dummy variable that equals 0 if year *t* is before 2004 and *I* if year t is after 2008. *Interaction* is the product of *Enactstate_{it} and Postkelo_{it}.*

Variable	Obs	Mean	Std. Dev.	Min	Max
Proppercent	1173	1.960835	2.353378	0.17	15.05
Proplevel	1173	541817.4	675505.3	36236	5143934
Populationpercent	1173	1.960699	2.175852	0.17	12.15
Populationlevel	1173	5561694	6201726	453690	3.80E+07
Currenttax	1173	2.05E+07	2.79E+07	840926	2.19E+08
Percapitaincome	1173	30285.12	9465.476	13117	74773
Propertytax	1173	105475.7	213882	0	2221506

5. Result

Column 1 presents the fixed effects result of model 1 by using the national share of non-farm proprietor employment as the dependent variable. The coefficient of our interest variable, *Enact_{it}*, is not statistically significant, suggesting that state-level national share of non-farm proprietor employment is not affected by the enactment of a state-level law restricting eminent domain takings.

Column 2 presents the difference-in-difference result of model 2 by using national share of state-level non-farm proprietor employment as the dependent variable. The coefficient of our focus variable, *Interaction*, is

not statistically significant. This result suggests that the change in the national share of non-farm proprietor employment between post and pre-*Kelo* periods in states that enacted strong laws is not necessarily larger than the change in those states that did not enact strong laws.

In column 3 and 4, we use the level of non-farm proprietor employment as the dependent variable and present fixed effects and difference-in-difference regression results respectively. Our findings are consistent with the results of DeGennaro and Li (2013) that the level of business creation is not related to states' responses to *Kelo* in a statistically meaningful way.

Table 2Multivariate Analysis

Proppercent_{it} is the non-farm proprietor employment of state *i* at time *t* as a percent of US total employment. *Proplevel_{it}* is the non-farm proprietor employment of state *i* at time *t*. We use it as a robust check. *Enact_{it}* is a dummy variable that equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is weak and 1 if state*i*enacts a strong law that limits eminent domain takings in year *t*. *Populationpercent_{it}* is state *i*'s population in year *t* as a percent of US total population. *Populationlevel_{it}* is state *i*'s population in year *t*. We use it as a robust check. *Currenttax_{it}* is the current personal tax (federal, state, and local) of state *i* in year *t*. *Percapitaincome_{it}* is the per capita income of state *i* in year *t*. *Propertytax_{it}* is the state and local property tax of state *i* in year *t*. *Enactstate_{it}* is a dummy variable which equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is year *t*. *Propertytax_{it}* is the state and local property tax of state *i* in year *t*. *Percapitaincome_{it} is* a dummy variable which equals 0 if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* does not respond to *Kelo* or the enacted legislation is weak and *I* if state *i* enacts a strong law that limits eminent domain takings. *Postkelo_{it}* is a dummy variable that equals 0 if year *t* is before 2004 and *I* if year t is after 2008. *Interaction* is the product of *Enactstate_{it}* and *Postkelo_{it}.*

	1	2	3	4
Variables	proppercent	proppercent	proplevel	proplevel
enact	0.0142		-3,653	
	(0.02)		(7222.00)	
Enact states		0.0582**		46,001***
		(0.02)		(7817.00)
postkelo		-0.135***		147,700***
		(0.04)		(15001.00)
interaction		0.00806		-29,647
		(0.05)		(18907.00)
Populationpercent	0.979***	1.035***		
	(0.03)	(0.03)		
Populationlevel			0.191***	0.0779***
			(0.00)	(0.00)
Current tax	-6.88E-10	-5.55e-09**	0.00468***	0.00415***
	(0.00)	(0.00)	(0.00)	(0.00)
Percapitaincome	1.28e-06*	6.36e-06***	2.029***	0.163
	(0.00)	(0.00)	(0.30)	(0.62)
Property tax	-3.20e-07***	1.41e-06***	0.0883**	0.396***
	(0.00)	(0.00)	(0.03)	(0.05)
Constant	0.0483	-0.295***	-687,269***	-90,433***
	(0.07)	(0.05)	(20177.00)	(19934.00)
Observations	1,173	1,020	1,173	1,020
R-squared	0.43	0.981	0.9	0.968
Number of id	51		51	

Note: Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

6. Conclusion

Following DeGennaro and Li's (2013) model, we empirically test the impact of the states' responses to *Kelo* on states' national shares of non-farm proprietor employment. After controlling for unobserved heterogeneity, our analysis shows that the national share of states' non-farm proprietor employment is not affected by the states' responses to *Kelo*. The difference-in-difference regression analysis confirms this finding. The change in the national share of non-farm proprietor employment in the states that enact strong laws is not statistically different than the change in the states that do not. We conclude that states which enact strong laws that restrict eminent domain takings are not associated with detectable differences in non-farm proprietorship employment relative to the states that do not enact or enact symbolic laws.

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