

Does Collateral Value Affect Asset Prices? (Albert Alex Zevelev)

Assets can be pledged as collateral:

1. at purchase
2. after purchase (denoted CV_t)

Question: Does the ability to pledge a home as collateral after purchase affect its price?

⇒ First paper to ask this question for *any* asset

Hypothesis: Yes, if households prefer assets which facilitate their future ability to borrow.

Challenge: Hard to disentangle CV_t from other variables that affect house prices (rent etc).

Natural Experiment: Texas legalized HELs and cash-out refis in 1998.

Theory: In Texas for $t < 1998$ $p_t = \sum_{j=1}^{\infty} \frac{Rent_{t+j}}{(1+r)^j}$
for $t \geq 1998$ $p_t = \sum_{j=1}^{\infty} \frac{Rent_{t+j} + \mathbf{CV}_{t+j}}{(1+r)^j}$

Empirical Strategy: Use the Texas law change to identify the impact of CV_t on house prices.

$$y_{i,s,t} = \alpha_i + \theta_t + \beta_{DID} Post_t Texas_s + \Gamma X_{i,s,t} + \varepsilon_{i,s,t}$$

Identifying Assumption: $\mathbb{E}[\varepsilon_{i,s,t} | Texas_s \times Post_t, \alpha_i, \theta_t, X_{i,s,t}] = 0$

The law change was exogenous conditional on fixed effects and controls.

Research linked the law change to

1. Federal Tax Reform Act of 1986 (mortgage interest tax deductible)
2. Fifth circuit court ruling in 1994

The identifying assumption can be defended as these factors are not linked to Texas house prices.

Falsification tests show rent, income, population unaffected.

Results: the law's impact on prices was **PHD**: (1) **Positive**, (2) **Heterogeneous** and (3) **Direct**

1. **Positive:** The law increased Texas house prices 3.5-6.16% (Table 2, 3, 4).
Validation test: Pre-trends are parallel (Figure 2, 3).
2. **Heterogeneous:** Prices rose more in inelastic locations (Table 5; Figure 5).
→ Sanity check consistent with theory (Figure 4).
Prices rose more in zips w/ higher pre-law house prices, income and employment (Table 5).
→ New evidence richer households value future home equity extraction more strongly.
→ Richer households have bigger tax shields, are more financially literate and are more likely to qualify for HELs.
3. **Direct:** Texas rent, population, income and employment were unaffected by laws (Table 6).
→ Evidence the treatment effect was direct, since the law didn't affect variables related to prices.
→ This does not imply $\hat{\beta}_{DID}$ is a measure of willingness to pay for the option to borrow.

Many papers study the impact of credit constraints on consumption, this paper studies the impact on prices.