

PRICING GOVERNMENT CONTRACT RISK PREMIA: EVIDENCE FROM THE 2025 FEDERAL LEASE TERMINATIONS

SOON HYEOK CHOI

Rochester Institute of Technology

CAMERON LAPOINT

Yale SOM

Pre-WFA Real Estate Research Symposium

Denver, CO

June 21st, 2026

ARE GOVERNMENT CONTRACTS A SAFE INVESTMENT?

Earn Yields Up to 9% From U.S. Government Properties With These REITs



Investing in real estate investment trusts (REITs) that own and manage U.S. government properties offers a unique blend of stability and potential returns. These REITs lease space to federal agencies, ensuring a steady flow of rental income.

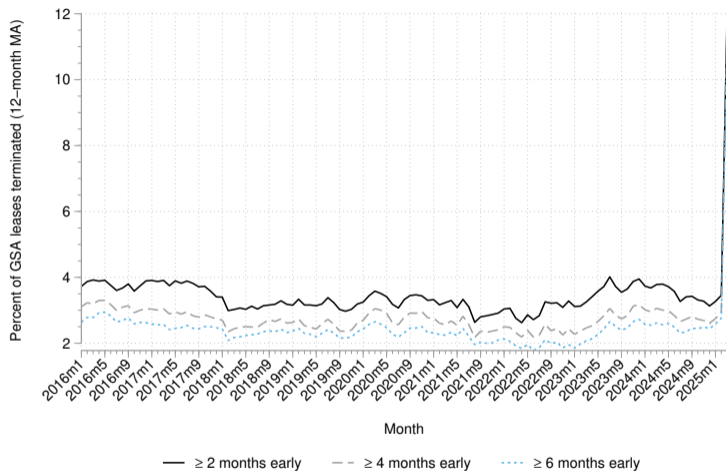
Source: *Yahoo Finance*, June 11, 2024

Statistics

- OECD spending on govt. contracts estimated at 12-13% of 2023 GDP (OECD 2025)
- **This paper:** DOGE federal lease terminations as a natural experiment to isolate repricing of govt. contract tail risk
- Reasons to focus on CRE markets:
 - ▶ Market price through CMBS + regular cash flow reporting
 - ▶ Location-specific shock
 - ▶ Financial stability concerns post-COVID

CRE debt exposure

SPIKE IN (IMPLIED) GOVT. LEASE CANCELLATION RATE



Sources: GSA Lease Inventory and DOGE website.

- Annualized cancellation rate went from historical avg. of 3% to 12% by March 2025

FINDINGS: BIG REPRICING OF GOVT. CRE CONTRACT TAIL RISK

- We exploit DOGE's activation of an **early termination option (ETO)** in federal leases as a natural experiment to show... [Literature](#)

① **First-loss CMBS bonds linked to canceled leases experience 3-4% price decline**

- ▶ Persistent effects so far (up to 2025Q4) despite some DOGE rescissions
- ▶ Not driven by spillovers within the bond pool

② **Deteriorating performance of canceled, ETO-eligible, and privately-leased properties**

- ▶ 24% NOI and 15% DSCR declines among canceled leases, with large spatial spillovers
- ▶ Production spillovers through procurement contracts, not driven by consumption externalities

③ **Translates to \approx 8% 5-year loss of D.C. office market value in median risk case**

- ▶ Most of the losses generated by occupancy $\downarrow\downarrow$ in nearby offices
- ▶ One-year govt. spending multiplier: for every \$1 of canceled payments, \$0.50 in lost income

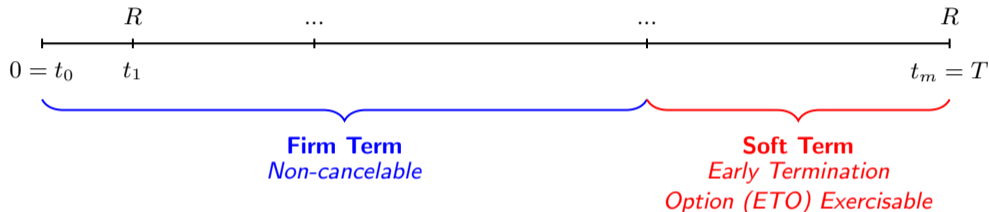
BACKGROUND & DATA

EARLY TERMINATION OPTION (ETO) CLAUSE IN GOVT. LEASES

- General Services Administration (GSA) negotiates federal contracts on behalf of the govt.
 - ▶ Acts as the “nation’s landlord” by renting out federally owned buildings
 - ▶ Negotiates procurement (e.g., w/defense contractors) and leases offered by private landlords renting space to federal agencies
 - ▶ Well-defined contract format → negotiation is on prices and whether to include clauses
- Key difference for federal leases relative to private ones is the prevalence of an **early termination option (ETO)** Example #1 Example #2 Clause
 - ▶ Private leases typically have a penalty paid by the lessee to the landlord
 - ▶ ETO is a no-fault option that vests once a termination right date (TRD) is reached
 - ▶ Time before the TRD is called the “**firm term**” of the lease, anything after is the “**soft term**”
- 85% of leases notified by DOGE were already in the soft term
 - ▶ Remaining 15%: non-renewals or cases where agency disbanded (e.g., USAID)

SAMPLE TIMELINE FOR ETO CLAUSE IN GOVT. LEASES

Federal Lease Term Structure with an ETO Theory



- Median firm term length = 10 years, soft term length = 5 years Plot
- Define GSA lease as “ETO-eligible” if in soft term as of Jan. 2025
- Not-yet-eligible control group: leases entering soft term in the next few years DiD regression
 - ▶ Robustness: try various bandwidths for time window defining “not yet”

Leases

Displaying 384 lease terminations totaling ~\$140M in savings.

Savings

Total Value ↓

Date

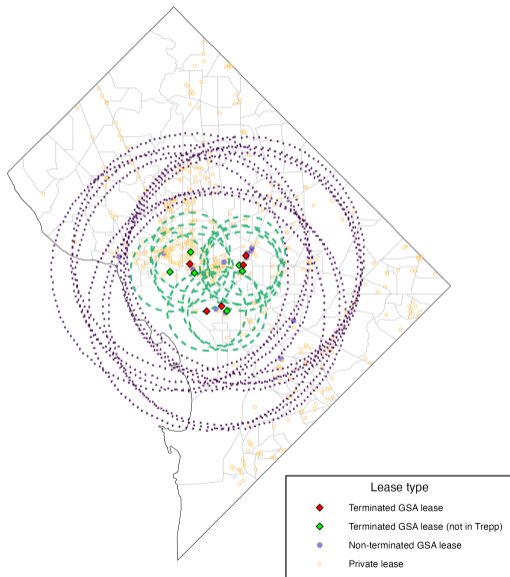
AGENCY	LOCATION	DESCRIPTION	DATE	SQ FT	VALUE
LD BUR LAB STAT	WASHINGTON, DC	True Termination- Consolidation	1/30/2025	845,389	\$26,357,330
FEDERAL BUREAU OF INVESTIGATION	WASHINGTON, DC	True Termination- Agency Closed ...	5/23/2025	200,432	\$9,535,356
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	WASHINGTON, DC	Termination via Mass Mod	3/4/2025	76,200	\$3,639,020
LD MINE SAFE HEALTH	ARLINGTON, VA	True Termination- Move to Federal...	2/20/2025	88,469	\$3,016,102
OFFICE OF THE SECRETARY	DENVER, CO	Termination via Mass Mod	2/26/2025	86,809	\$2,905,174
DHS UNDERSEC FOR MGM	WASHINGTON, DC	True Termination- Move to Federal...	2/13/2025	59,681	\$2,774,013
DHS UNDERSEC FOR MGM	ARLINGTON, VA	True Termination- Consolidation	1/29/2025	55,043	\$2,595,912
DEPT OF TREASURY-BUREAU OF THE FISCAL SERVICE	HYATTSVILLE, MD	True Termination- Move to Federal...	2/25/2025	76,372	\$2,568,071
CENTER FOR DISEASE CONTROL	ATLANTA, GA	True Termination- Agency Direct L...	1/27/2025	119,812	\$2,490,197
DHS UNDERSEC FOR MGM	ARLINGTON, VA	True Termination- Consolidation	1/29/2025	49,662	\$2,440,578

PANEL OF PROPERTY-LOAN-BONDS MATCHED TO GSA INVENTORY

- **DOGE website snapshots**: twice daily scrapes of the lease cancellation tables Time series
 - ▶ Backfilled to website's inception using JLL/Arco market reports + Wayback Machine
- **Trepp CMBS daily + monthly price data** Tranches Sum stats Letter Bloomberg
 - ▶ When no price observed, Trepp imputes bond value using hazard model of default rates
 - ▶ Check against daily TRACE/Bloomberg data (WRDS missing $\approx 15\%$ Trepp CUSIPs)
 - ▶ Match to Trepp property/loan/bond deal characteristics via CUSIP
- **GSA lease inventory panel**: hand-match to DOGE and Trepp Sum stats Flows
 - ▶ FOIA'ed + compiled from monthly updates to GSA real estate webpage
 - ▶ Needed to recover lease contract terms and identify units with ETO exposure
- Data for spillovers: **Advan Weekly Patterns** retail and non-retail foot traffic data + USAspending.gov for procurement Coverage

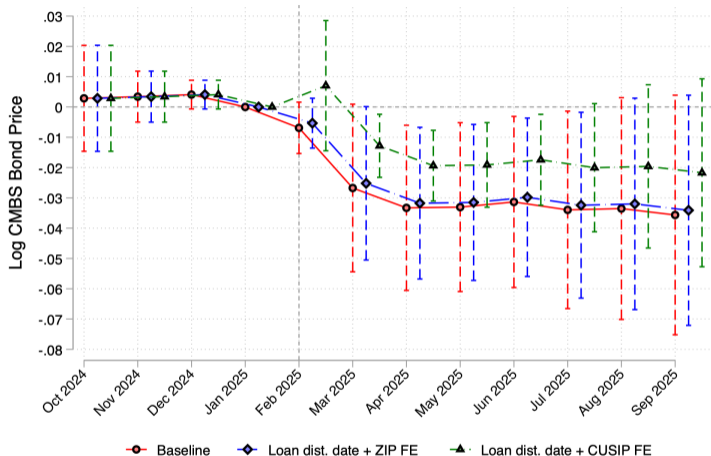
CONSTRUCTING THE SAMPLE FOR WASHINGTON, D.C.

- Focus on D.C. because... [More stats](#) [Map](#)
 - ▶ Greatest density of canceled leases
 - ▶ $\approx 50\%$ of D.C. GSA leases are securitized compared to 28% of offices in Moody's CRE
 - ▶ Large control group of not-yet-eligible
- Seven terminated leases spanning 74 CMBS CUSIPs [Targeting?](#)
 - ▶ ETO-eligible leases span 285 CUSIPs
- Agencies: GSA, HUD, VA, DHS, FEMA, Treasury, IRS, Department of Energy, Federal Energy Regulatory Commission, Federal Aviation Administration (FAA)



REDUCED-FORM RESULTS FOR OFFICE PERFORMANCE

3-4% DROP IN DOGE CMBS PRICES, PERSISTENT UP TO 2025Q4

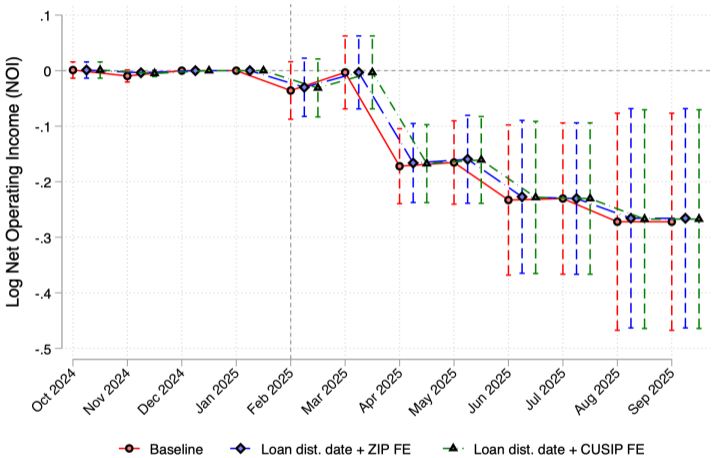


Notes: We restrict our sample to the first-loss group of tranches. Standard errors clustered at the bond CUSIP level.

Pooled REITs Shutdown Daily

- CUSIP FEs account for restructuring of bond pool → some attenuation for this reason

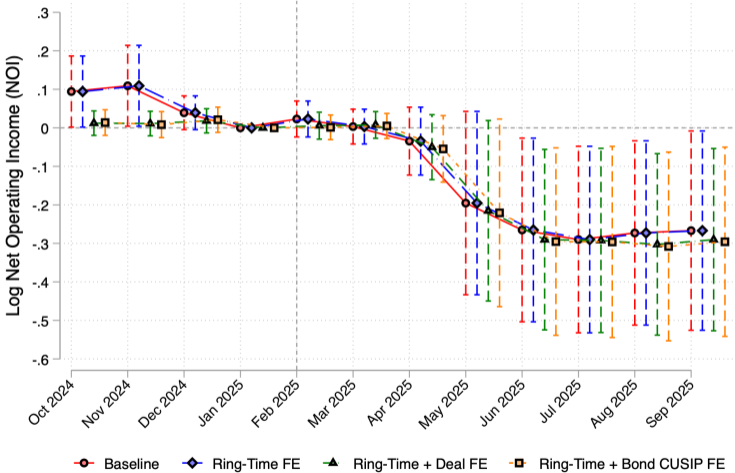
24% DROP IN NOI FOR DOGE-NOTIFIED PROPERTIES



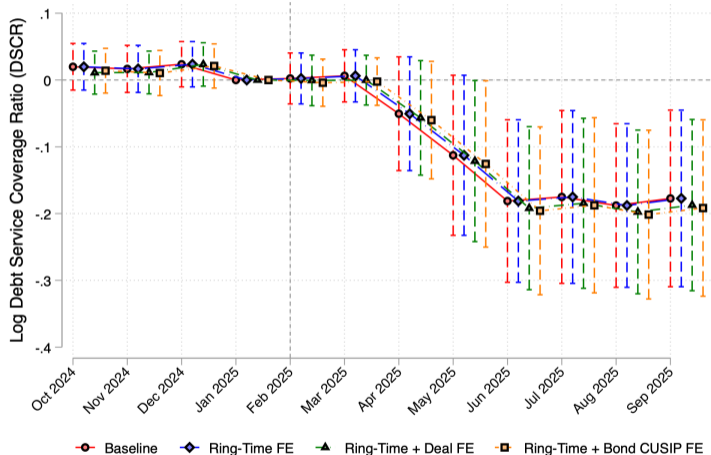
Notes: NOI is defined at the loan level. Standard errors clustered at the Trepp loan id level.

- Timing: drop occurs at months 3-4 due to grace period ending Pooled Vacancy clause Delinquency

DYNAMIC SPATIAL DID: NEG. SPILLOVERS TO NOI WITH NO DIRECT GSA EXPOSURE



DYNAMIC SPATIAL DID: NEG. SPILLOVERS TO LOAN DSCR WITH NO DIRECT GSA EXPOSURE



- Especially problematic for loans due to be refinanced into higher-rate environment

MECHANISMS: HOW IS THE SHOCK PROPAGATING?

POSSIBLE CHANNELS FOR OFFICE MARKET DETERIORATION

① Consumption externalities **X**

- ▶ In dense cities, workers make several trips to and from the office (Miyachi et al. 2025)
- ▶ Robust zero effect of DOGE cancellation on nearby retail (or office) foot traffic WFH Results

② Production externalities **✓**

- ▶ Spillovers to providers of local goods/services to terminated agencies (e.g., law firms)

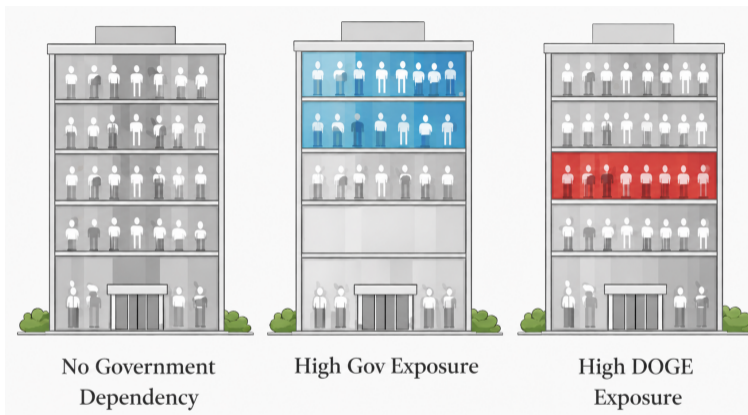
③ Strategic responses of landlords **X**

- ▶ Prices (rent psf) do not adjust for current ETO-eligible leases given contracts set in advance
→ annual escalation clauses of $\approx 1-2\%$, on avg.

④ Salience/information shock **(✓)**

- ▶ Landlords and CMBS investors perceive ETO clauses as newly activated New leases
- ▶ If so, landlords may avoid GSA tenants or negotiate higher rents for new GSA tenants

WHAT WE ARE DOING IN A PICTURE



- *HighDOGEEExp*: contract exposure to agencies targeted by DOGE [Definitions](#)
- *HighNonDOGEGovExp*: non-DOGE federal govt. contract exposure (placebo)
- Decompose building-level occupancy and rent adjustments [Steps](#) [Summary stats](#) [Industries](#)

DiD EXPOSURE ESTIMATES: OCC. ↓↓, NO CHANGE IN RENTS

$$Y_{i,t} = \beta^{DOGE} \cdot (HighDogeExp_i \times Post_t) + \mu_i + \delta_t + \Gamma' \cdot \mathbf{Z}_{i,t} + \varepsilon_{i,t}$$

Panel (A)	Occupancy			Log Rent Per Square Foot		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>HighDOGEEExp</i>	-0.035 (0.027)	-0.016 (0.022)		0.060** (0.024)	-0.048** (0.020)	
<i>HighDOGEEExp</i> × <i>Post</i>	-0.057*** (0.019)	-0.057*** (0.018)	-0.058*** (0.017)	0.003 (0.013)	0.001 (0.012)	-0.001 (0.001)
Adj-R ²	0.647	0.689	0.805	0.708	0.850	0.997
Observations	2,568	2,544	2,568	2,568	2,544	2,568
Quarter FE	✓	✓	✓	✓	✓	✓
Property Zip FE	✓	✓		✓	✓	
Hedonic Controls		✓			✓	
Building FE			✓			✓

- **NOI drop due to occupancy reduction**, not landlords strategically lowering rents to retain tenants due to concerns about market unraveling Monotonicity

PLACEBO REGRESSIONS: HIGHGOV EXPOSURE BLDGS

$$Y_{i,t} = \beta^{GOV} \cdot (HighGovExp_i \times Post_t) + \mu_i + \delta_t + \Gamma' \cdot \mathbf{Z}_{i,t} + \varepsilon_{i,t}$$

Panel (B)	Occupancy			Log Rent Per Square Foot		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>HighNonDOGEGovExp</i>	-0.028 (0.025)	-0.031 (0.027)		0.194*** (0.033)	0.088*** (0.027)	
<i>HighNonDOGEGovExp</i> × <i>Post</i>	0.016 (0.015)	0.016 (0.016)	0.015 (0.013)	-0.003 (0.017)	-0.003 (0.012)	-0.002 (0.002)
Adj-R ²	0.645	0.688	0.804	0.719	0.852	0.997
Observations	2,568	2,544	2,568	2,568	2,544	2,568
Quarter FE	✓	✓	✓	✓	✓	✓
Property Zip FE	✓	✓		✓	✓	
Hedonic Controls		✓			✓	
Building FE			✓			✓

- Suggests spillover effects are not due to broader concerns about reductions in federal govt. footprint after new presidential administration

PRODUCTION EXTERNALITIES SCALE UP TO DROP IN NOI

- Since rents are approximately fixed, a decline in occupancy ΔOcc implies:

$$\frac{\Delta NOI}{NOI} \approx \frac{\Delta Occ / Occ_0}{m}, \text{ with } m = 1 - \frac{\text{operating expenses}}{\text{gross revenue}}$$

- NOI margin m or operating leverage
 - ▶ **Cannot estimate m directly** because we lack complete income statements
 - ▶ 2024 industry reports estimate $m \approx 50\text{-}60\%$ for CBD offices (Rubin & Firenze 2024)
- For office properties within 1 mile of a DOGE lease, avg. $Occ_{2024} = 75\%$
- $\implies \hat{\beta}^{DOGE} = 6 \text{ p.p.}$ scales up to $\% \Delta NOI = 13\text{-}16\%$, compared to our headline estimates of a 15-16% drop in NOI for nearby offices

SIMULATION: WHAT ARE THE IMPLIED VALUE LOSSES?

LOSS SIMULATION PROCEDURES

- Jump-diffusion processes for govt. cancellation risk: Full model Calibration

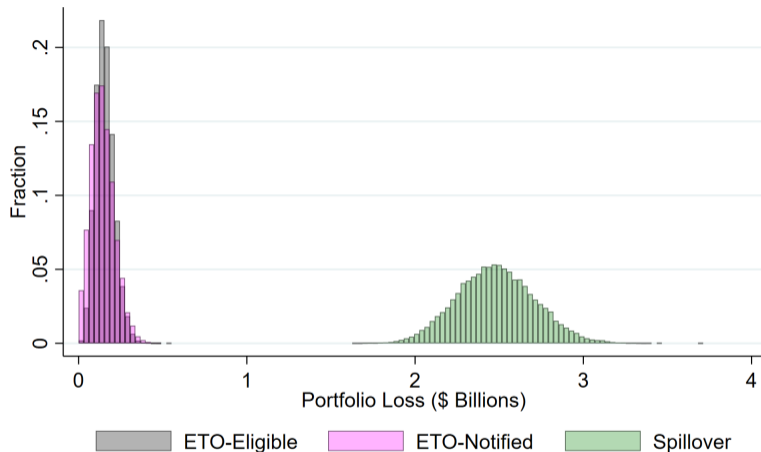
$$dV_t = \mu V_t^- dt + \sigma V_t^- dW_t + V_t^- (J_g - 1) dC_t, \quad \text{for } g \in \{DOGE, ETO, SPILL\}$$

- For each group g calibrate jump size to DiD estimates: $J_g = \log(1 - \theta_g)$
 - ▶ Omitted reference (i.e., control) group is not-yet ETO-eligible as in DiD setting
- Apply group-specific jump multiplier impact β_g , yielding the jump-affected terminal value

$$V_{i,T}^{(g)} = V_{i,T}^{(0)} \exp(J_g N_T) = V_{i,T}^{(0)} (1 - \theta_g)^{N_T}$$

- Compare to a “no-jump” counterfactual to compute loss L_i Paths
 - ▶ Approximate pre-DOGE market value based on hedonically-adjusted loan-appraised values to fill in initial conditions $V_{i,0}$ Hedonics

TAIL-RISK LOSSES DOMINATED BY THE SPILLOVER GROUP



VaR (20/50/75/95) in USD Billions
ETO-Eligible (0.108/ 0.152/ 0.192/ 0.255) ETO-Notified (0.084/ 0.138/ 0.188/ 0.269) Spillover (2.283/ 2.476/ 2.636/ 2.871)

- Private-tenant properties account for $\approx 85\%$ of the total losses [1-year estimates](#) [Table](#)

TAIL RISK: $\approx 8\%$ DESTRUCTION OF D.C. OFFICE MARKET VALUE

$$ES_{1-\alpha}(L) = \mathbb{E}[L \mid L \geq \text{VaR}_{1-\alpha}(L)]$$

5-Year Persistence	Value at Risk (VaR)				Expected Shortfall (ES)			
	20%	50%	75%	95%	20%	50%	75%	95%
ETO-eligible	0.108 [0.150]	0.152 [0.211]	0.192 [0.267]	0.255 [0.354]	0.175 [0.243]	0.201 [0.279]	0.231 [0.321]	0.286 [0.397]
ETO-notified	0.082 [0.121]	0.137 [0.202]	0.188 [0.276]	0.268 [0.395]	0.166 [0.245]	0.199 [0.293]	0.238 [0.350]	0.307 [0.452]
Spillover	2.283 [3.862]	2.476 [4.188]	2.636 [4.459]	2.871 [4.856]	2.561 [4.332]	2.667 [4.511]	2.782 [4.705]	2.977 [5.035]
Total (\$ Billions)	2.473 [4.133]	2.765 [4.601]	3.016 [5.002]	3.394 [5.605]	2.902 [4.820]	3.067 [5.083]	3.251 [5.376]	3.570 [5.884]

- Median-risk loss of \$3.1 B, or 7.7%** at \$40 billion valuation of D.C. office market based on recent transactions (BNP Paribas 2025; Cushman & Wakefield 2025)
 - ▶ If mark-to-market unsold properties (hedonic), value destruction slightly bigger
 - ▶ 1-year estimates: 1-2% of office market value destroyed

Securitization

Cost-benefit

TAKEAWAY: GOVT. PROCUREMENT RISK IMPORTANT FOR CRE

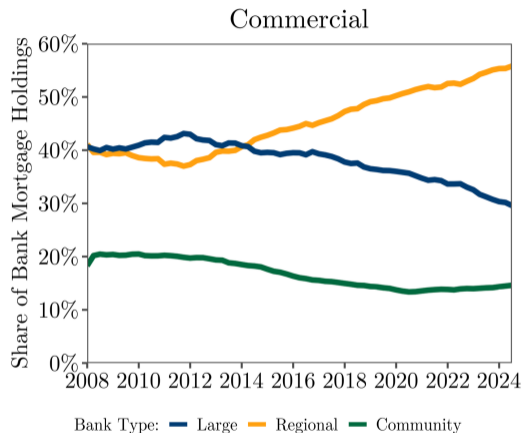
- We identify a new risk factor in commercial real estate: **government contract exposure**
 - ▶ CMBS prices, NOI, DSCR ↓ after DOGE reactivates dormant early termination clause
 - ▶ **Production externalities:** service providers to govt. agencies scaling back office footprint
- On top of fiscal multipliers, **valuation multiplier** propagating through debt markets
 - ▶ Long-run response of landlords and lenders to move away from govt. tenants altogether given lack of price negotiating power? → **already 6% rent psf ↑ for new GSA leases**
- **Wake-up call** to diversify away from public funding persists even after federal DOGE
 - ▶ GSA continues to list long-time government-owned properties for sale
 - ▶ 16 states have since created their own official DOGE-like task force
- Future work: CRE performance effects of state and local procurement changes around elections, agglomeration effects from govt. agency clusters

THANK YOU!

SSRN paper downloadable here



EMPIRICAL APPENDIX



Source: Hinzen, Severino, Van Nieuwerburgh (2025): "Too-Many-to-Ignore: Regional Banks and CRE Risks"

- Office CMBS delinquency rate reached all-time high of 12.34% (Jan. 2026 Trepp)
 - ▶ Office special servicing rate hit 18% in Apr. 2026
- Major life insurers hold 16% of their portfolio in CRE debt
 - ▶ 1/3 of CRE exposure is CMBS bonds (Brown et al. 2024)
 - ▶ D.C. ranks third among metros for life insurers' CRE exposure
- Collecting more data to scale up shock to nationwide losses → political stress tests

① Political risk and securities markets

Pástor & Veronesi (2012,13); Goodell & Vähämaa (2013); Pasquariello & Zafeiridou (2014); Brogaard & Detzel (2015); Kelly, Pástor, Veronesi (2016); Col, Durnev, Molchanov (2017); Hassan et al. (2019)

→ Pricing of political uncertainty in debt markets + CRE context

② Real economic fallout from govt. shutdowns

Julio & Yook (2012); Baker, Bloom, Davis (2016); Baker & Yannelis (2017); Herpfer et al. (2021)

→ Clear timing and definition of political shock through contractual clauses

③ Agglomeration effects and local economic spillovers

Benmelech et al. (2018); Rosenthal & Strange (2020); Choi et al. (2025); Miyauchi, Nakajima, Redding (2025); Anenberg, Kim, Moszkowski (2025); Gupta, Mittal, Van Nieuwerburgh (2026)

→ Evidence of production externalities + market-wide contagion in office market

④ Local fiscal multipliers

Nakamura & Steinsson (2014); Suárez Serrato & Wingender (2016); Dupor & Guerrero (2017); Chodorow-Reich (2019); Auerbach et al. (2020); Barnichon et al. (2022); Park et al. (2025)

→ Govt. investment also generates a (large) local real asset value multiplier

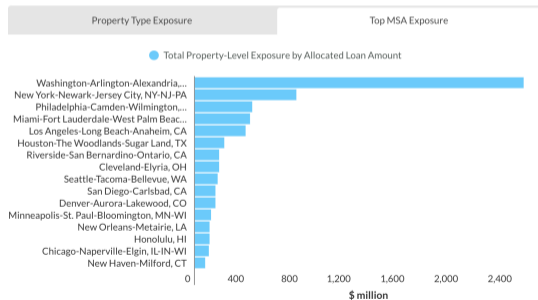
FITCH WIRE

U.S. CMBS with Govt Lease Exposure Face Increased Default, Loss Risk

Fri 21 Feb, 2025 - 1:11 PM ET

Fitch-Rated CMBS GSA Exposure by Largest MSA Concentration and Property Type

Type



Source: *Fitch Ratings*, February 21, 2025

- Are these concerns well-founded? If so, why wasn't the risk sufficiently diversified?

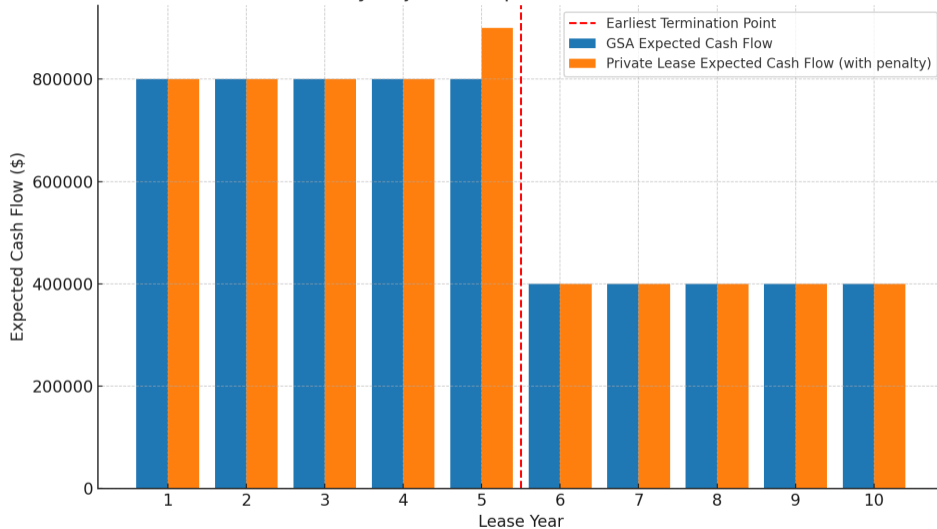
- ▶ Payments on fixed-term contracts stable and usually continue during shutdowns
- ▶ Still, risk that political regime can change

- **New fact:** federally leased offices 50% more likely to be securitized, suggesting they were perceived as safer than private-tenant leases

- ▶ Safer CRE properties are more likely to be securitized
- ▶ Black, Krainer, Nichols (2020 *RFS*)

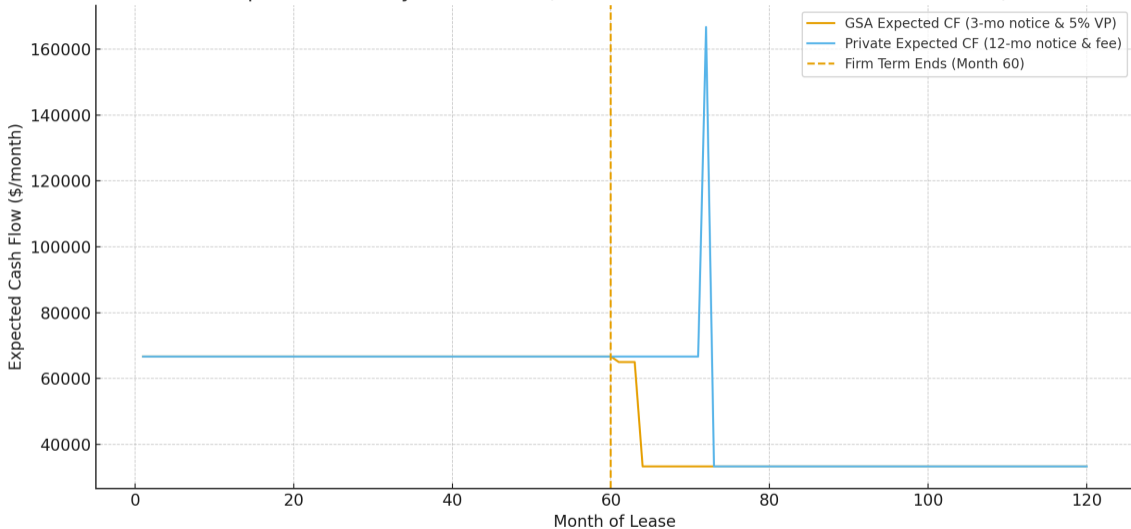
Case Study: Easterly

Probability-Adjusted Expected Annual Cash Flows



[Go back](#)

Expected Monthly Cash Flows (GSA 3-mo Notice vs Private 12-mo Notice)



[Go back](#)

EXAMPLE: GSA LEASE TEMPLATE WITH TERMINATION RIGHTS

GO BACK

ACTION REQUIRED: USE IF TERMINATION RIGHTS ARE NEGOTIATED. OTHERWISE, DELETE.

1.05 TERMINATION RIGHTS (OCT 2016)

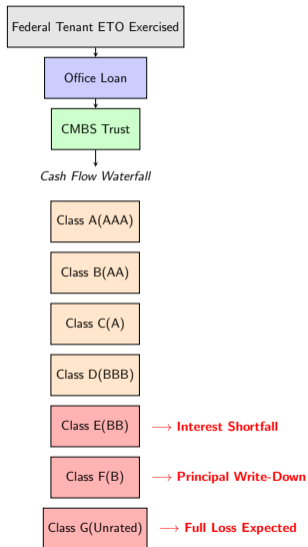
The Government may terminate this Lease, in whole or in parts, at any time effective after the Firm Term of this Lease, by providing not less than **XX** days' prior written notice to the Lessor. The effective date of the termination shall be the day following the expiration of the required notice period or the termination date set forth in the notice, whichever is later. No rental shall accrue after the effective date of termination.

Source: GSA Global Lease Template L100 (Oct. 2023)

- Grace period is also negotiable, but standard is 90 to 120 days \implies “zombie leases” not yet removed from GSA inventory
- Private leases: longer advance notice period (6-12 months) + cost recovery/penalties
- Embed ETO contingencies into standard arbitrage pricing framework for CRE leases
 - ▶ Derive testable implications and the govt. risk premium Theory

- **Advantage to Trepp:** cash flows updated more frequently for securitized properties
 - ▶ Typically every 1-3 months → OCC recommends loan servicers request monthly updates
 - ▶ In progress: cross-checking with Moody's CRE which is based on lease listings
- Problem: in most cases cannot separate out leases (treated unit) from individual properties (finest unit in Trepp)
- Many-to-many join across all the Trepp FEED tables to determine exposure
 - ▶ CUSIP corresponds to tranche of bond deal, representing a pool of loans
 - ▶ Each loan corresponds to a property, with the top 5 tenants recorded
- Sort CUSIPs into senior, mezzanine, **first-loss group (FLG) tranches** using bond ratings (Flynn & Ghent 2018)
 - ▶ Senior = AAA-rated, FLG = CCC/CCC+/unrated, mezz. = everything else

ETO Notification and Cash Flow Waterfall [Go back](#)



- Senior and upper mezzanine tranches are least exposed to losses in the event of mortgage default
 - ▶ “Redeem up, foreclose down”
 - ▶ We only find effects on prices of first-loss tranches
- B-piece buyers act as gate-keepers in CMBS
 - ▶ Re-underwrite all the loans in the underlying pool
 - ▶ Lowest tranches are the most sensitive to new information (Ashcraft, Gooriah, Kermani 2019)

Estimated Savings

\$215B

Combination of asset sales, contract/lease cancellations and renegotiations, fraud and improper payment deletion, grant cancellations, interest savings, programmatic changes, regulatory savings, and workforce reductions.

Amount Saved Per Taxpayer

\$1,335.40

Per taxpayer amount is calculated using an estimate of 161 million individual federal taxpayers.

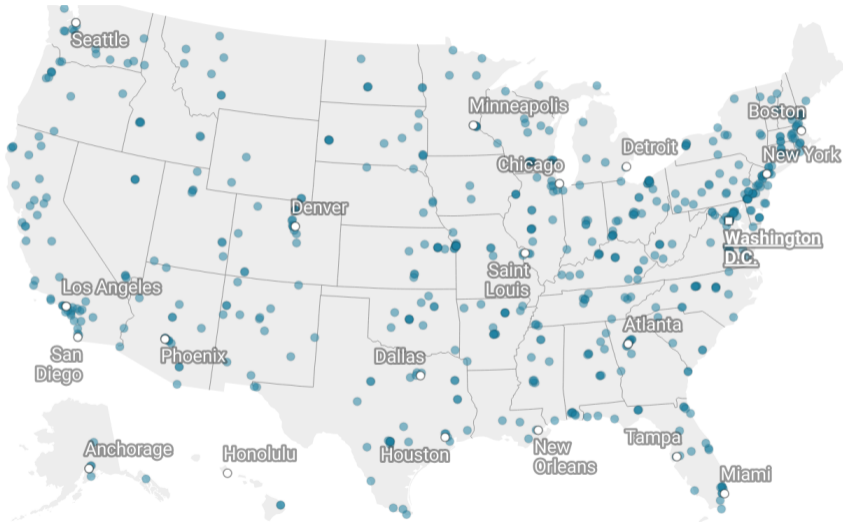
We are working to upload all of our receipts in a digestible and transparent manner consistent with applicable rules and regulations. To get started, listed below are a subset of contract, grant, and lease cancellations, representing ~30% of total savings.

The contracts listed below have been posted publicly on [fpds.gov](https://www.fpds.gov). FPDS posting of the contract termination notices can have up to a 1 month lag. There may be discrepancies between FPDS / USAspending and the posted numbers, the latter of which originate directly from agency contracting and grant officials.

Last updated **January 1st, 2026**. This will initially be updated weekly; over time, the website will improve and the updates will converge to real-time.

- Headline # gives total savings across leases + contracts + grants canceled
- Savings amounts based on an extreme upper bound principle [Go back](#)

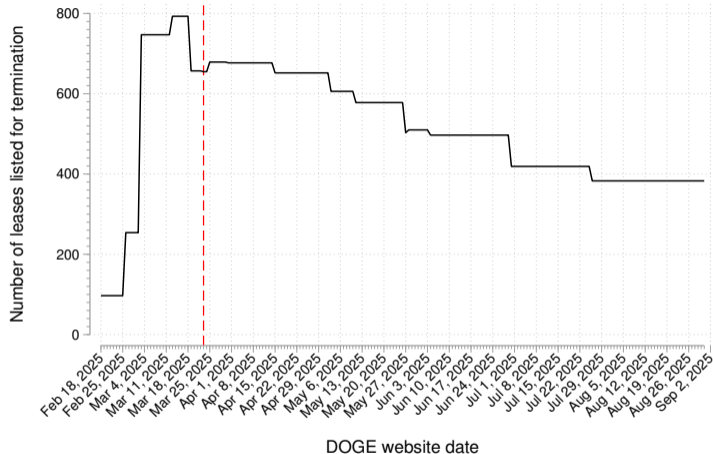
DOGE Federal Lease Termination Footprint by State [Go back](#)



Notes: The map plots a snapshot of the DOGE-terminated federal leases as of March 24, 2025.

OF DOGE-CANCELED GSA LEASES SINCE 2/18/2025

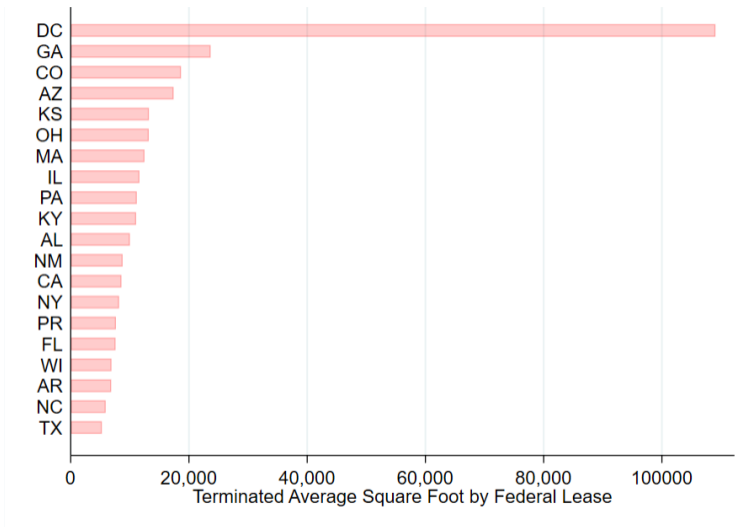
[GO BACK](#)



- Set of 7 canceled + securitized GSA leases in Washington, D.C. were all **notified** between Jan. 30th and Feb. 13th → set Feb. 2025 as $t = 0$

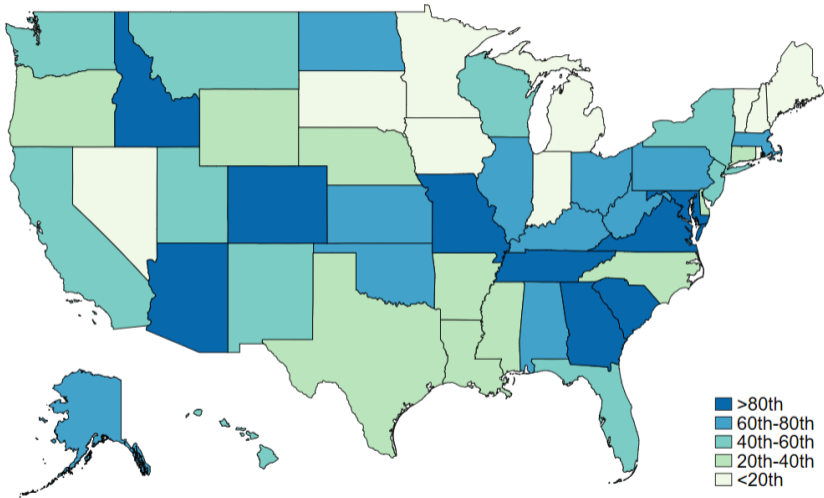
Top 20 States in Terminated Average Square Footage by Federal Lease

[Go back](#)



Notes: Average square foot of terminated federal leases of top 20 states in descending order as of March 24, 2025. *Sources:* Department of Government Efficiency, Arco Real Estate Solutions, JLL Federal Lease Termination Tracker.

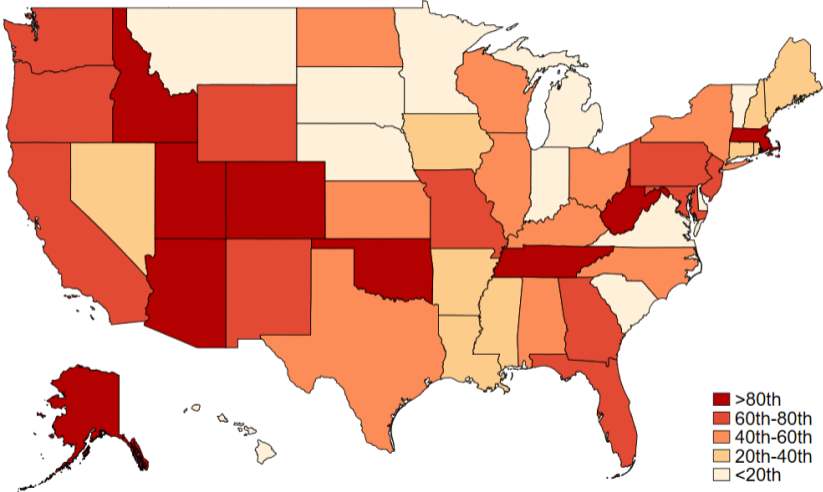
Fraction of Total Square Footage Terminated by State [Go back](#)



Notes: The map displays the fraction of total square footage in terminated federal leases by state in quintiles as of March 24, 2025. *Sources:* Department of Government Efficiency, Arco Real Estate Solutions, JLL Federal Lease Termination Tracker.

Fraction of Total Savings due to Terminated Federal Leases by State

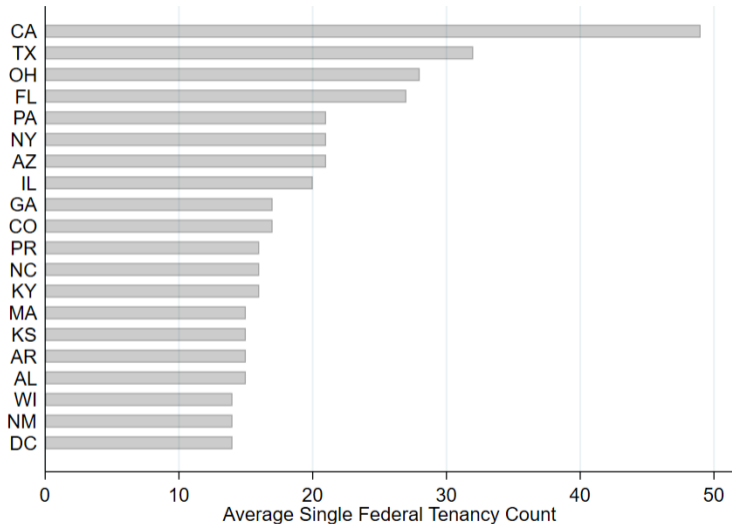
[Go back](#)



Notes: The map displays the fraction of total savings reported by the Department of Government Efficiency (DOGE) due to federal lease terminations by state in quintiles as of March 24, 2025. *Source:* Department of Government Efficiency, Arco Real Estate Solutions, JLL Federal Lease Termination Tracker.

Top 20 States in Single-Tenancy Federal Lease Concentration

[Go back](#)



Notes: The bar plot shows the average number of single-tenancy federal leases of top 20 states in descending order as of March 24, 2025. *Sources:* Department of Government Efficiency, Arco Real Estate Solutions, JLL Federal Lease Termination Tracker.

DISTRIBUTION OF FIRM AND SOFT TERM LENGTHS

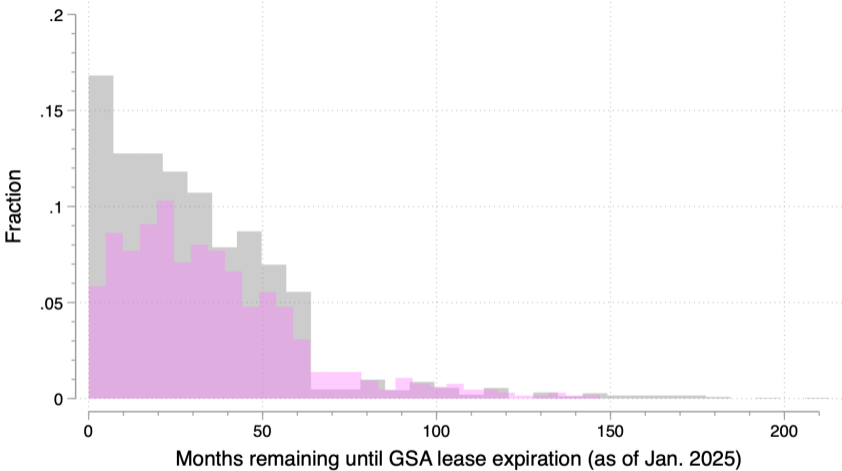
[GO BACK](#)



Median firm term length: 10.00; Median soft term length: 5.00

DOGE TARGETED LEASES WITH MORE MONTHS REMAINING

[GO BACK](#)



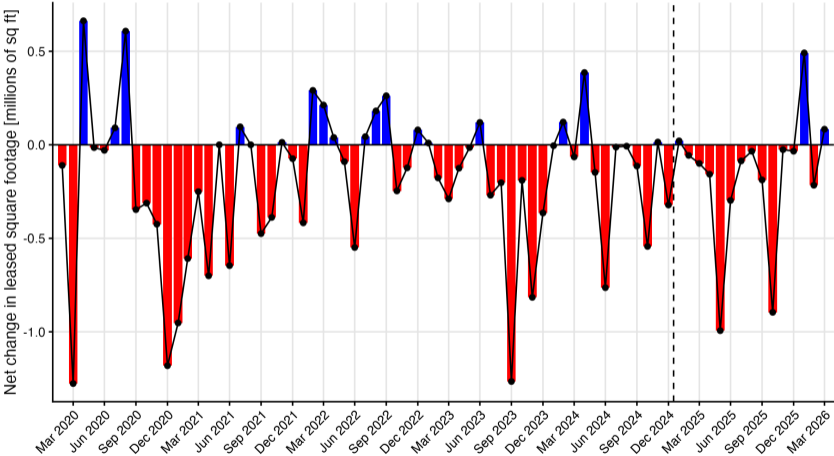
Legend: Already ETO-eligible ETO-notified

Average months remaining -- ETO-eligible: 30.95; ETO-notified: 34.99; t-stat on diff = -3.44

LAG IN GSA LEASE INVENTORY DUE TO GRACE PERIOD

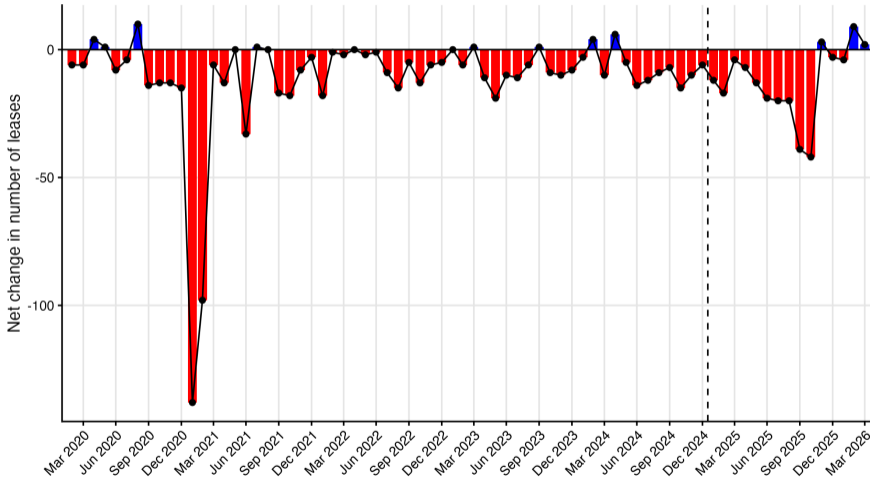
[GO BACK](#)

Net changes in GSA Lease Inventory, Leased Square Footage



Net change defined as Leased SqFt Added - Leased SqFt Expired/Terminated. Dotted line indicates start of DOGE program. Source: GSA monthly lease inventory.

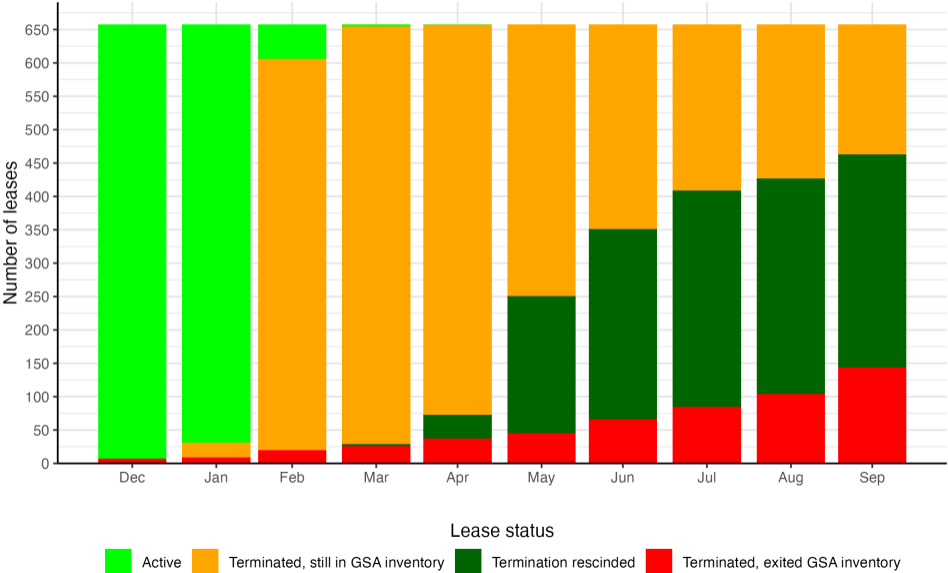
Net changes in GSA Lease Inventory, Number of Leases



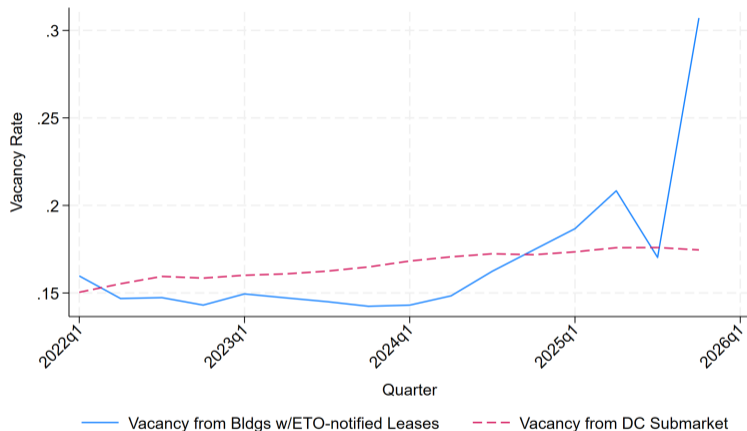
Net change defined as Leases Added - Leases Expired/Terminated. Dotted line indicates start of DOGE program. Source: GSA monthly lease inventory.

FULL DECOMPOSITION OF GSA LEASE INVENTORY FLOWS

[GO BACK](#)



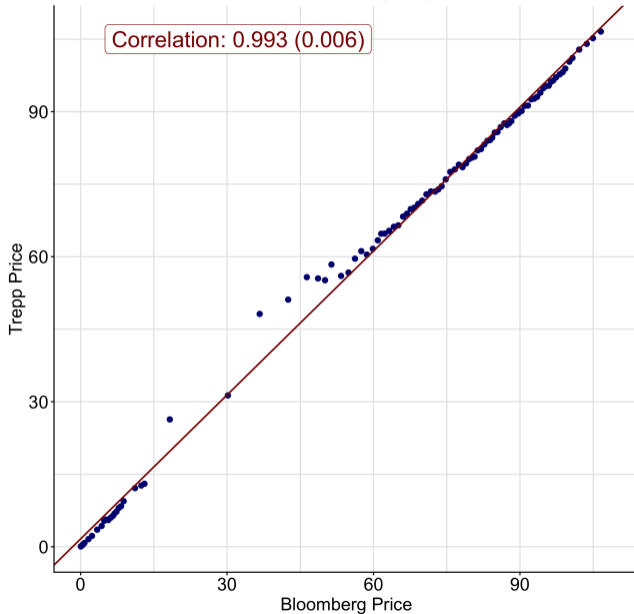
DOGE DIDN'T TARGET *ex ante* “WEAK” OFFICE PROPERTIES



Notes: Quarterly vacancy rates for ETO-notified buildings (sqft-weighted; blue) versus the D.C. office submarket (red)

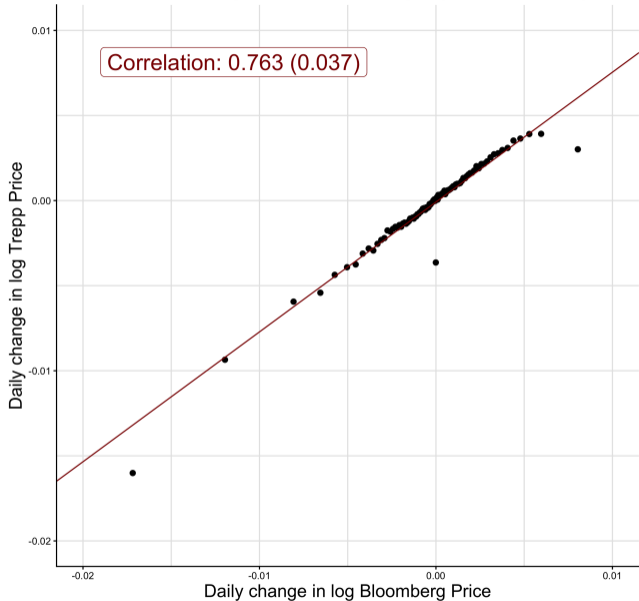
- ETO-notified buildings track the broader D.C. submarket pre-DOGE, then vacancy rises sharply post-DOGE [Go back](#)

Binned Scatterplot of Trepp vs. Bloomberg Daily CMBS Prices

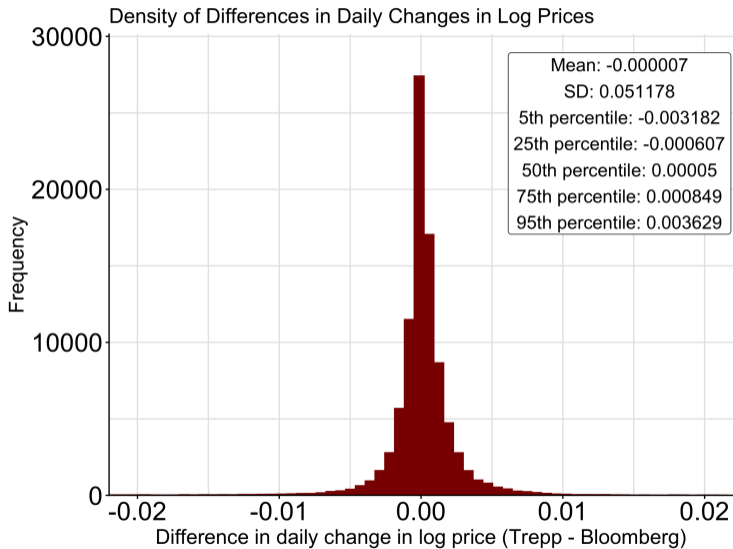


[GO BACK](#)

Binned Scatterplot of Changes in Trepp vs. Bloomberg Daily CMBS Prices Changes



Note: Changes in log prices are winsorized at the 1% and 99% percentiles.



ACTION REQUIRED: USE IF THERE IS A NEGOTIATED AMOUNT FOR THE VACANT LEASED PREMISES.

NOTE: ALWAYS ATTEMPT TO NEGOTIATE AN ADJUSTMENT FOR VACANT PREMISES PRIOR TO LEASE AWARD. IDEALLY, NEGOTIATE OUT ALL NON-REQUIRED SERVICES AND UTILITIES IN THE VACANT SPACE.

1.15 RATE FOR ADJUSTMENT FOR VACANT LEASED PREMISES (SEP 2013)

In accordance with the paragraph entitled "Adjustment for Vacant Premises," if the Government fails to occupy or vacates the entire or any portion of the Premises prior to expiration of the term of the Lease, the operating costs paid by the Government as part of the rent shall be reduced by \$~~XX.XX~~ per ABOA SF of Space vacated by the Government.

NOTE: ALWAYS ATTEMPT TO NEGOTIATE SOME KIND OF ADJUSTMENT FOR VACANT PREMISES PRIOR TO LEASE AWARD. IDEALLY, NEGOTIATE OUT ALL NON-REQUIRED SERVICES AND UTILITIES IN THE VACANT SPACE.

2.08 GSAR 552.270-16 ADJUSTMENT FOR VACANT PREMISES (DEVIATION) (SEP 2022)

- (a) If the Government fails to occupy any portion of the leased premises or vacates the premises in whole or in part prior to expiration of the term of the lease, the rental rate and the base for operating cost adjustments will be reduced using the figure specified in the "Rate for Adjustment for Vacant Leased Premises" paragraph of this Lease.
- (b) If no rate reduction has been established in this lease, the rate will be reduced by that portion of the costs per ABOA square foot of operating expenses not required to maintain the space.
- (c) Said reduction shall occur after the Government gives 30 calendar days' prior notice to the Lessor and shall continue in effect until the Government occupies the vacant premises or the lease expires or is terminated.

- Even if within grace period, NOI can fall immediately due to this haircut
- Avg. haircut \approx \$1.50 – \$2 rent psf \implies about 2-3% drop in NOI



Trepp, Inc.

600 Fifth Avenue, 7th Floor · New York, NY 10020

212-754-1010 · www.trepp.com

To Cameron LaPoint,

Our evaluated prices are derived using a robust, market-driven framework designed to reflect fair value based on observable market activity, validated models, and ongoing expert oversight. Prices are informed by a broad set of market inputs, including recent transaction data, dealer quotations, and market color collected from a diverse network of active market participants. When direct observable data is limited, prices are supplemented by internally developed pricing models that incorporate security structure, collateral performance, prevailing market conditions, and relative value relationships across comparable instruments.

A key component of our validation framework is an active price challenge process. Our client base includes a large roster of institutional investors and market participants who actively trade these securities. Clients are able to challenge evaluated prices at any time, and challenges are reviewed against trade data, external market sources, and contemporaneous market information. Where warranted, prices are adjusted to reflect new or superior information. This continuous feedback loop provides an additional, real-world check on price accuracy and relevance.

- **Contagion effects:** repricing of risk associated with already ETO-eligible properties that were not canceled
 - ▶ Already eligible means already past termination right date as of Jan. 2025
 - ▶ Run the same specifications using ETO-eligible as the “treatment” group
- **Spatial spillovers:** performance of nearby properties with no GSA leases might suffer
 - ▶ Production externalities, retail foot traffic, reallocation of federal workforce, loan repricing

$$Y_{i,c,r,t} = \beta \cdot Spillover_{i,c,r} \times Post_t + \gamma \cdot Post_t + \eta \cdot Spillover_{i,c,r} + \mu_{(i,c)} + \chi_{r,t} + \varepsilon_{i,c,r,t}$$

- Test for whether being close to a DOGE lease matters relatively more for private leases using $Spillover_{i,c,r}$ to indicate location within inner ring
- Comparison is between offices within inner vs. outer ring for which all 100% leased to private (i.e., non-GSA) tenants

Summary Statistics [Go back](#)
 (Announcement, Rescission, Notification Dates)

Date (Lessee #)	Earliest	Latest	Min Rent Area	Max Rent Area	Avg Rent Area	Obs.
Announcement Date 1	2/16/2025	2/16/2025	229699	725317	456214	15194
Announcement Date 2	2/16/2025	2/16/2025	1410049	1410049	1410049	5178
Announcement Date 3	2/16/2025	2/16/2025	264325	272006	271754	2862
Rescission Date	3/25/2025	3/25/2025	1410049	1410049	1410049	5178
Notification Date 1	1/30/2025	3/4/2025	721604	725317	722871	15194
Notification Date 2	2/12/2025	2/12/2025	264325	272006	271754	2862

Notes: The table reports the summary statistics of the DOGE announcement, rescission, and notification dates for the Washington D.C area. Each row documents the earliest and latest corresponding dates and associated minimum, maximum, and average rent area.

CMBS Summary Statistics by CRE Exposure Group

[Go back](#)

	First-loss	Mezzanine	Senior	All
<i>Panel A: ETO Exercisable (Not Notified)</i>				
<i>Log(P_{bond})</i>	3.017	3.614	3.476	3.499
<i>StdDev</i>	(1.957)	(1.374)	(2.284)	(1.881)
<i>N</i>	2,756	13,935	12,753	29,444
<i>Log(NOI)</i>	15.556	15.886	15.898	15.860
<i>StdDev</i>	(0.761)	(0.862)	(0.935)	(0.891)
<i>N</i>	2,756	13,386	12,551	28,693
<i>Log(DSCR)</i>	0.576	0.502	0.531	0.522
<i>StdDev</i>	(0.551)	(0.390)	(0.402)	(0.414)
<i>N</i>	2,714	13,314	12,430	28,458
<i>Panel B: ETO Exercisable (Notified)</i>				
<i>Log(P_{bond})</i>	3.019	3.741	3.600	3.566
<i>StdDev</i>	(1.232)	(1.407)	(2.113)	(1.731)
<i>N</i>	3,090	8,146	7,940	19,176
<i>Log(NOI)</i>	16.697	16.341	16.357	16.406
<i>StdDev</i>	(0.149)	(0.433)	(0.434)	(0.421)
<i>N</i>	3,090	8,083	7,665	18,838
<i>Log(DSCR)</i>	1.004	0.619	0.663	0.701
<i>StdDev</i>	(0.229)	(0.360)	(0.406)	(0.387)
<i>N</i>	3,090	7,969	7,551	18,610
<i>Panel C: Non-GSA Leases</i>				
<i>Log(P_{bond})</i>	3.136	3.889	3.547	3.707
<i>StdDev</i>	(1.923)	(1.244)	(2.206)	(1.734)
<i>N</i>	92,893	736,294	506,606	1,335,793
<i>Log(NOI)</i>	14.682	15.239	15.131	15.155
<i>StdDev</i>	(1.605)	(2.080)	(1.915)	(1.988)
<i>N</i>	86,861	619,231	479,258	1,185,350
<i>Log(DSCR)</i>	0.390	0.613	0.535	0.565
<i>StdDev</i>	(0.502)	(0.628)	(0.522)	(0.582)
<i>N</i>	86,502	599,613	465,892	1,152,007

$$Y_{i,c,t} = \beta \cdot DOGE_{i,c} \times Post_t + \gamma \cdot Post_t + \eta \cdot DOGE_{i,c} + \underbrace{\xi' \cdot \mathbf{X}_{i,c}}_{\text{bond pool controls}} + \underbrace{\delta_{i,y}}_{\text{issue date FEs}} + \varepsilon_{i,c,t}$$

- Compare DOGE-canceled to bonds entering the soft term during DJT 2.0
- **Combines elements of staggered DiD and regression discontinuity**
 - ▶ Setting has limited data due to thinness of securitized office market
 - ▶ Standard bandwidth selection criteria would pick too few obs.
 - ▶ We pick a broader bandwidth w.r.t. distance to termination right date
- Test for contamination bias using [multe](#) (Goldsmith-Pinkham, Hull, Kolesár 2024)
 - ▶ With controls (sq. ft., occ. rate, issuance month), no statistical evidence of contamination
 - ▶ **Robustness: restrict to soon-eligible but not in soft term during sample period**

CONTAMINATION BIAS TEST FOR CMBS BOND PRICES

[GO BACK](#)

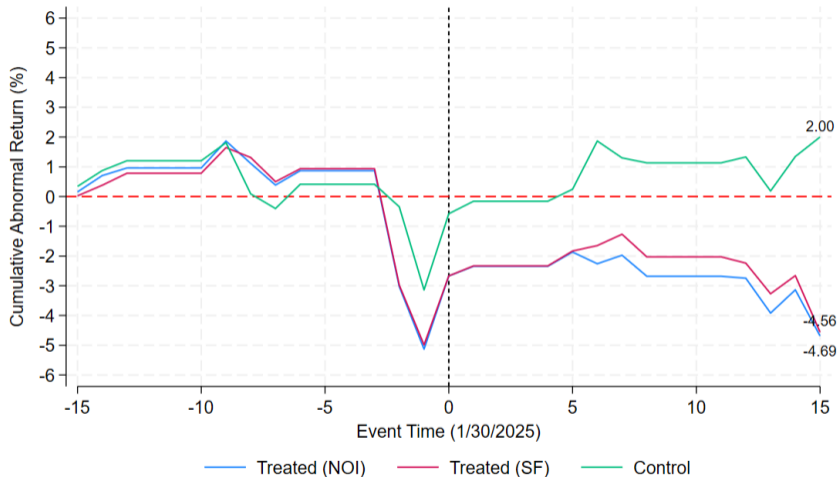
$$\Delta y_i = \bar{y}_{i,\text{post}} - \bar{y}_{i,\text{pre}}$$

$$\Delta y_i = \alpha + \tau \cdot \text{arm}_i + \gamma \cdot \bar{y}_{i,\text{pre}} + \varepsilon_i.$$

	Monthly	Daily
<i>Panel A. Two-arm collapsed estimates</i>		
DOGE (Robust-only)	-0.0094 (0.0157)	-0.0082 (0.0147)
DOGE (Future-pooled)	0.0025 (0.0094)	0.0022 (0.0088)
<i>Panel B. Three-arm MULTE diagnostic</i>		
Partially linear estimate (PL)	-0.0105	-0.0093
Contamination-adjusted estimate (ATE)	-0.0109	-0.0096
PL – ATE	0.0004	0.0003
LM test <i>p</i> -value	0.2959	0.2971
Wald test <i>p</i> -value	0.2791	0.2797
Propensity-score SD	0.0786	0.0787
<i>Panel C. Sample</i>		
Observations	84	
Arm Counts: Robust / Future / DOGE	24 / 28 / 32	
Collapsed unit	CUSIP	

MIRRORED IN ABNORMAL RETURNS FOR REITs

[GO BACK](#)



- Compare office REITs with more (treated) vs. less (control) GSA D.C. tenants

[Horizons](#)

POOLED DID RESULTS FOR DOGE CMBS PRICES

[GO BACK](#)

Control Group	Jan. 2025–Jan. 29 TRD			Jan. 2026–Jan. 29 TRD		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Post</i>	0.027*			0.031*		
	(0.015)			(0.016)		
<i>DOGE</i>	-0.507*	-0.343*		-0.539*	-0.677*	
	(0.264)	(0.176)		(0.302)	(0.341)	
<i>DOGE</i> × <i>Post</i>	-0.030*	-0.028*	-0.017	-0.034*	-0.034*	-0.034*
	(0.016)	(0.015)	(0.011)	(0.017)	(0.017)	(0.017)
Adj- R^2	0.044	0.061	0.999	0.051	0.090	0.999
Observations	1,100	1,100	1,100	756	756	756
Property Zip FE		✓			✓	
Deal Year FE		✓	✓		✓	✓
Bond Time FE			✓			✓
Bond CUSIP FE			✓			✓

POOLED DID RESULTS FOR DOGE LOAN-LEVEL NOI

[GO BACK](#)

Control Group	Jan. 2025–Jan. 29 TRD			Jan. 2026–Jan. 29 TRD		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Post</i>	-0.081** (0.031)	-0.083** (0.030)		-0.015 (0.047)	-0.014 (0.048)	
<i>DOGE</i>	-0.024 (0.482)	-0.933*** (0.119)		1.20 (0.785)	-0.246** (0.109)	
<i>DOGE</i> × <i>Post</i>	-0.105** (0.040)	-0.099** (0.041)	-0.100** (0.040)	-0.171*** (0.054)	-0.168** (0.054)	-0.168** (0.054)
R^2	0.003	0.950	0.992	0.169	0.988	0.992
Observations	3,776	3,776	3,776	2,064	2,064	2,064
Property Zip FE		✓			✓	
Deal Year FE		✓	✓		✓	✓
Loan Time FE			✓			✓
Bond CUSIP FE			✓			✓

POOLED DID RESULTS FOR DOGE LOAN-LEVEL DSCR

[GO BACK](#)

Control Group	Jan. 2025–Jan. 29 TRD			Jan. 2026–Jan. 29 TRD		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Post</i>	-0.132** (0.051)	-0.131** (0.051)		-0.106 (0.108)	-0.104 (0.108)	
<i>DOGE</i>	-0.058 (0.128)	-0.145 (0.111)		-0.021 (0.278)	-0.011 (0.413)	
<i>DOGE</i> × <i>Post</i>	-0.059 (0.057)	-0.053 (0.058)	-0.053 (0.057)	-0.085 (0.111)	-0.078 (0.111)	-0.079 (0.111)
Adj- R^2	0.049	0.311	0.841	0.030	0.351	0.869
Observations	3,776	3,776	3,776	2,064	2,064	2,064
Property Zip FE		✓			✓	
Deal Year FE		✓	✓		✓	✓
Loan Time FE			✓			✓
Bond CUSIP FE			✓			✓

	(1)	(2)	(3)	(4)
<i>Post</i>	0.003 (0.007)			
<i>Spillover</i>	-0.282 (0.274)	-0.282 (0.274)		
<i>Spillover</i> × <i>Post</i>	-0.288*** (0.110)	-0.288*** (0.110)	-0.243*** (0.061)	-0.223*** (0.058)
Adj- R^2	0.008	0.014	0.300	0.957
Observations	2,693	2,693	2,693	2,693
Ring-Time FE		✓	✓	✓
Deal FE			✓	
Bond CUSIP				✓

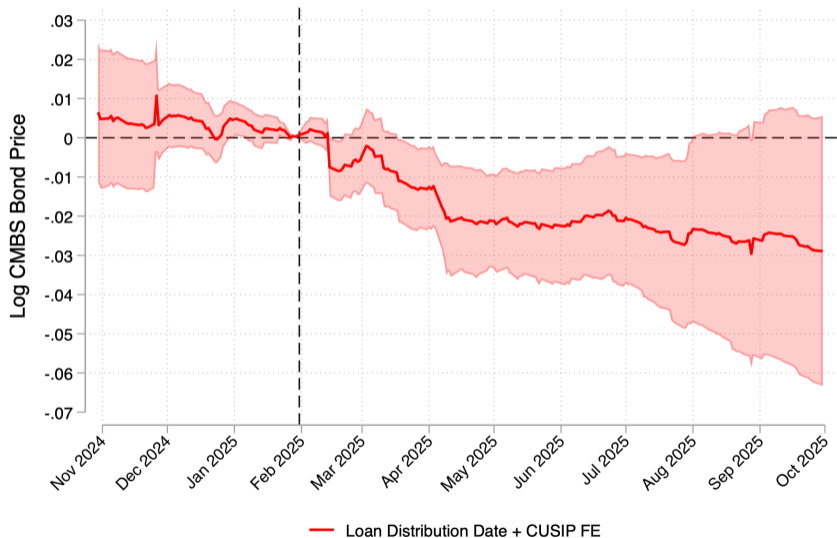
WEAK EVIDENCE OF NOI SPILLOVER TO ETO-ELIGIBLE GROUP

Control Group	Jan. 2025–Jan. 2029 TRD			Jan. 2026–Jan. 2029 TRD		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Post</i>	-0.097*** (0.026)	-0.100*** (0.025)		-0.052* (0.027)	-0.050* (0.028)	
<i>DOGE</i>	-0.211 (0.524)	-0.949*** (0.110)		1.09 (0.867)	-0.320*** (0.048)	
<i>DOGE</i> × <i>Post</i>	-0.031 (0.070)	-0.028 (0.069)	-0.028 (0.069)	-0.077 (0.071)	-0.076 (0.071)	-0.076 (0.071)
R^2	0.008	0.966	0.992	0.157	0.990	0.991
Observations	3,786	3,786	3,786	2,074	2,074	2,074
Property Zip FE		✓			✓	
Deal Year FE		✓	✓		✓	✓
Loan Time FE			✓			✓
Bond CUSIP FE			✓			✓

- ETO-eligible GSA leases not renegotiable except at renewal
- Any drop in NOI for this loan group must be due to spillovers to other tenants in the same building [Go back](#)

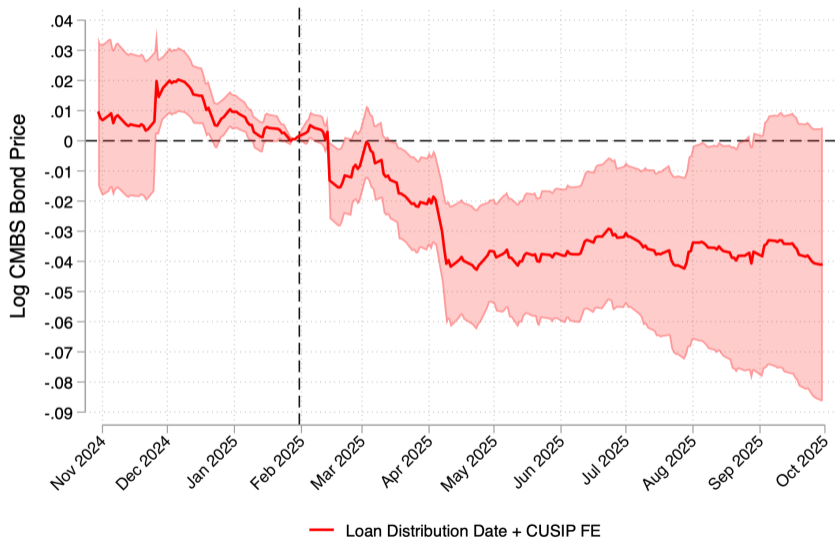
DAILY CMBS PRICING RESULTS: SOON-ELIGIBLE CONTROL

[GO BACK](#)



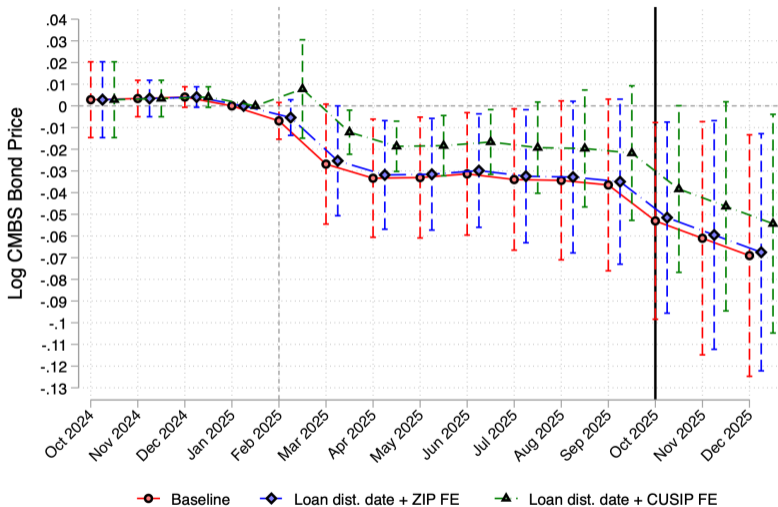
DAILY CMBS PRICING RESULTS: ROBUST CONTROL GROUP

[GO BACK](#)



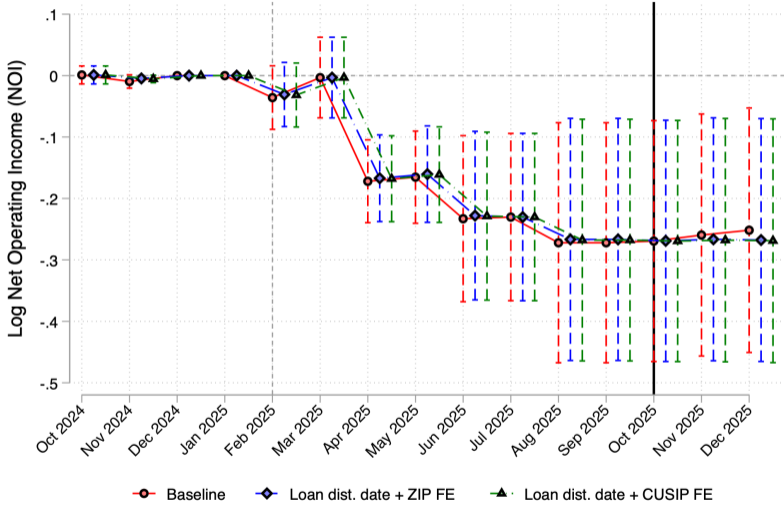
CMBS PRICE CORRECTION PERSISTS THROUGH SHUTDOWN

[GO BACK](#)

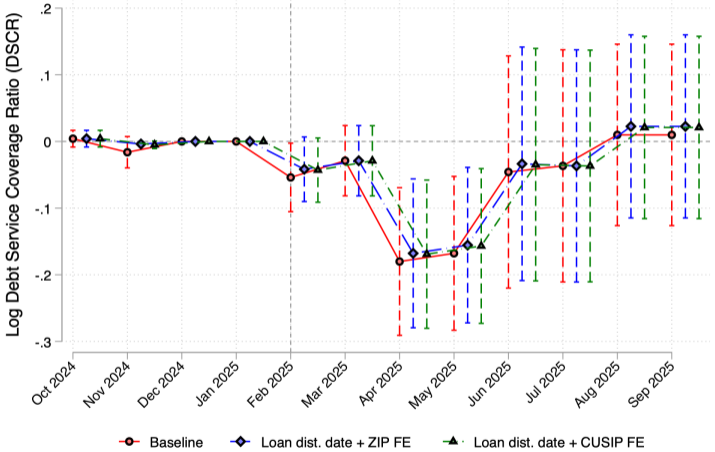


NOI DROP PERSISTS THROUGH SHUTDOWN

[GO BACK](#)



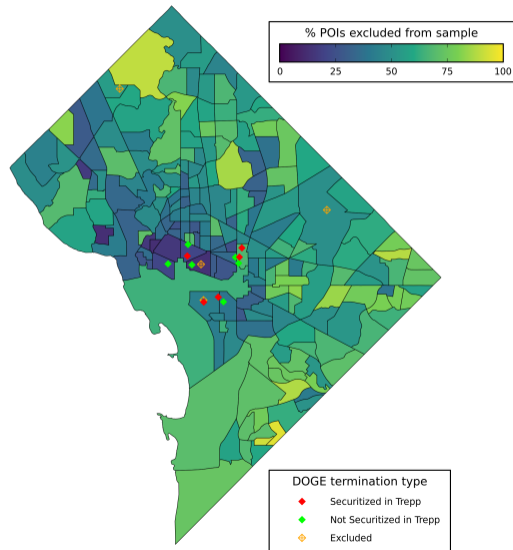
RECOVERY OF DSCR FOR DOGE-NOTIFIED PROPERTIES DUE TO LOAN MODS + EQUITY INJECTIONS



Notes: DSCR is defined at the loan level. Standard errors clustered at the Trepp loan id level.

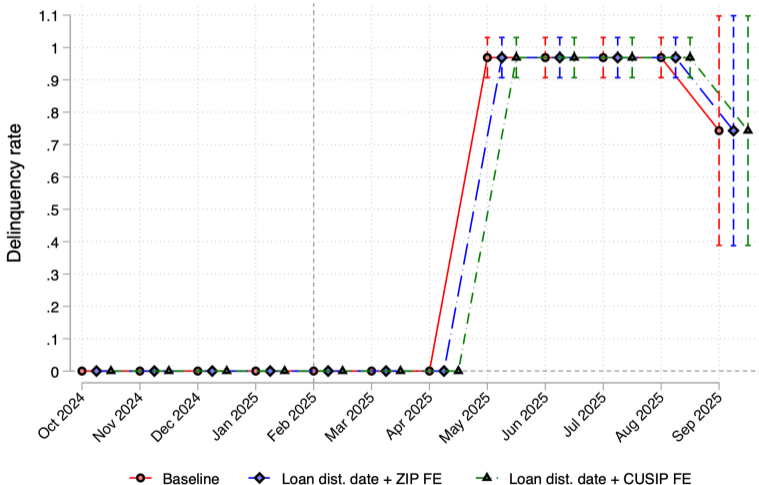
ADVAN FOOT TRAFFIC DATA COVERAGE – BALANCED PANEL

[GO BACK](#)



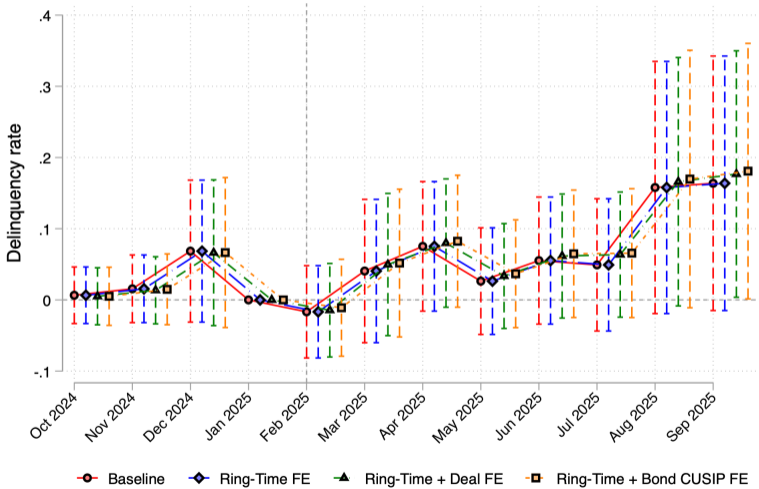
DELINQUENCY RATES REMAIN ELEVATED FOR LOANS ON DOGE-NOTIFIED PROPERTIES

[GO BACK](#)



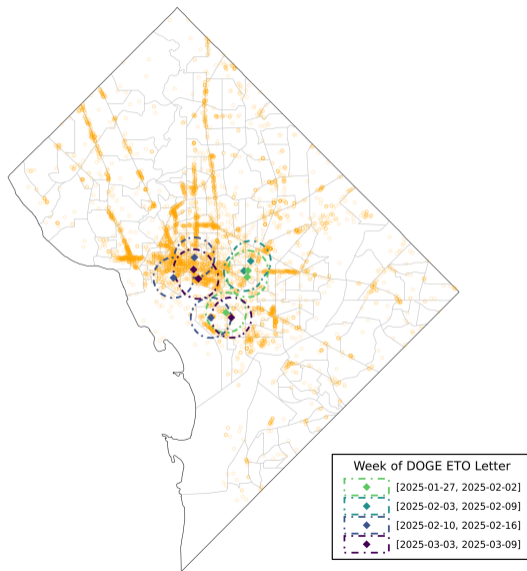
SUGGESTIVE EVIDENCE OF UPTICK IN LOAN DELINQUENCY FOR SPILLOVER PROPERTIES

[GO BACK](#)



RETAIL POIS AROUND EARLY VS. LATE DOGE LEASE RINGS

[GO BACK](#)



TEST FOR CONSUMPTION EXTERNALITIES IN FOOT TRAFFIC DATA

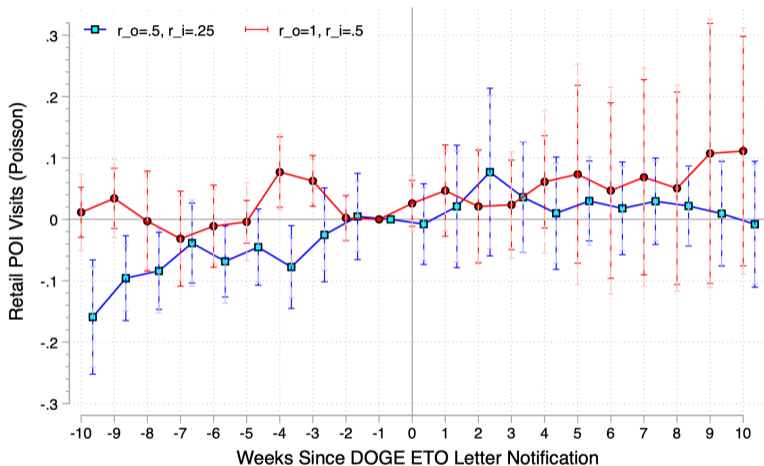
- Standard inner (close) vs. outer (far) ring design, with radii (\mathbf{r}_{inner} , \mathbf{r}_{outer})

$$Y_{j,r,s,t} = \sum_{t=-10, t \neq -1}^{+10} \beta_t \cdot Spillover_{j,t} + \mu_j + \chi_{r,t} + \delta_{s,t} + \epsilon_{j,t,r,s}$$

- Establishment j , DOGE outer ring r , 3-digit NAICS s , and week t [Go back](#)
 - ▶ Ring-by-time $\chi_{r,t}$ and subsector-by-time $\delta_{s,t}$ FEs
 - ▶ Check: (\mathbf{r}_{inner} , \mathbf{r}_{outer}) from (0.25, 0.5) to (0.5, 1) miles
- Check robustness to specifying visit Y to be log-normally or Poisson distributed
 - ▶ Even with $Y > 0, \forall j$ (balanced panel of POIs), fixed effects worsen the bias for log-linear regression (Cohn, Liu, Wardlaw 2022)
- Alternatively, compare properties in rings defined by early vs. late DOGE notifications (Callaway & Sant'Anna 2021) \rightarrow not just driven by contamination of outer ring

NO IMPACT ON RETAIL FOOT TRAFFIC

[GO BACK](#)



Notes: Solid bars indicate 95% Conley CIs with maximal SAC cutoff, dashed bars are those clustered by Census block group.

- Also null for non-retail foot traffic, or early vs. late ring design

[Jump](#)

[OLS](#)

[Office](#)

COULD RTO POLICIES AT D.C. AGENCIES PLAY A ROLE?

[GO BACK](#)

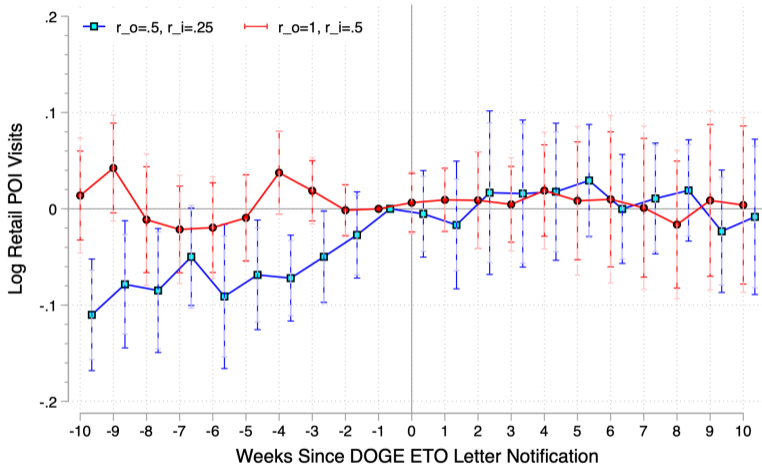
Status	Agency	Days/Week In-Office
DOGE-notified	Department of Veterans Affairs (VA)	2.5
DOGE-notified	Federal Energy Regulatory Commission (FERC)	2
DOGE-notified	Department of Homeland Security (DHS)	3 (est.)
DOGE-notified	General Services Administration (GSA)	1-2 (est.)
DOGE-notified	Federal Emergency Management Agency (FEMA)	2
DOGE-notified	Department of Housing and Urban Development (HUD)	1
DOGE-notified	Department of the Treasury	2.5
DOGE-notified	Internal Revenue Service (IRS)	2.5
DOGE-notified	Department of Energy (DOE)	3
DOGE-notified	Federal Aviation Administration (FAA)	2
ETO-eligible	GSA National Capital Region 11	2 (est.)
ETO-eligible	U.S. Navy	3
ETO-eligible	Department of Housing and Urban Development (HUD)	1
ETO-eligible	U.S. Federal Labor Relations Authority	3 (est.)
ETO-eligible	The Public Defender Service	3 (est.)
ETO-eligible	U.S. Chemical Safety Board	3 (est.)
ETO-eligible	United States Postal Service (USPS)	3
ETO-eligible	AmeriCorps	3 (est.)
ETO-eligible	Federal Mediation and Conciliation Service	4 (est.)
ETO-eligible	U.S. Office of Government Ethics	1-2 (est.)
ETO-eligible	National Aeronautics and Space Administration (NASA)	2.5 (est.)
ETO-eligible	NASA Office of Inspector General	3 (est.)
ETO-eligible	Office of the Comptroller of the Currency (OCC)	3 (est.)
ETO-eligible	Federal Housing Finance Agency (FHFA)	1-2 (est.)
ETO-eligible	Federal Trade Commission (FTC)	3 (est.)
ETO-eligible	National Endowment for the Humanities (NEH)	1-2 (est.)
ETO-eligible	National Endowment for the Arts (NEA)	2.5 (est.)
ETO-eligible	National Institute for Occupational Safety and Health (NIOSH)	2.5 (est.)
ETO-eligible	Networking and Information Technology Research and Development	2.5 (est.)
ETO-eligible	National Transportation Safety Board (NTSB)	1-2 (est.)
ETO-eligible	Argonne National Laboratory	2.5 (est.)
ETO-eligible	Court Services and Offender Supervision Agency (CSOSA)	1-2 (est.)
ETO-eligible	Pretrial Services Agency for the District of Columbia (PSA)	2.5 (est.)
ETO-eligible	Public Defender Service for the District of Columbia (PDS)	2.5 (est.)
ETO-eligible	Federal Retirement Thrift Investment Board (FRTIB)	3 (est.)
ETO-eligible	U.S. Agency for International Development (USAID)	3
ETO-eligible	National Science Foundation (NSF)	2

• RTO mandates/policies for federal agencies

- ▶ Flex Index (as of July 2024) and hand-collected from 2024 Congressional Report
 - ▶ All agencies have some WFH activity prior to DOGE
-
- Very little variation in RTO policies at the agency level → unlikely that DOGE targeting leases based on WFH behavior

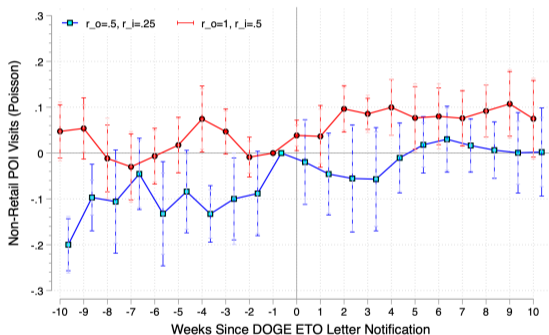
RETAIL FOOT TRAFFIC: OLS RESULTS

[GO BACK](#)

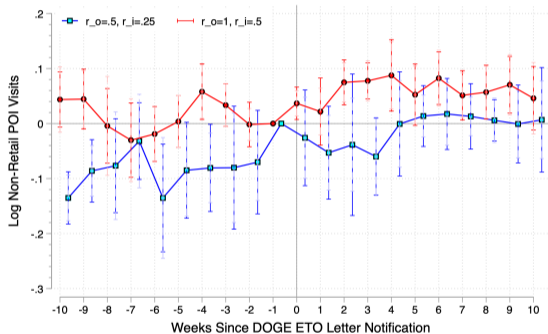


Notes: Solid bars indicate 95% Conley CIs with maximal SAC cutoff, dashed bars are those clustered by Census block group.

A. Poisson Regression Results



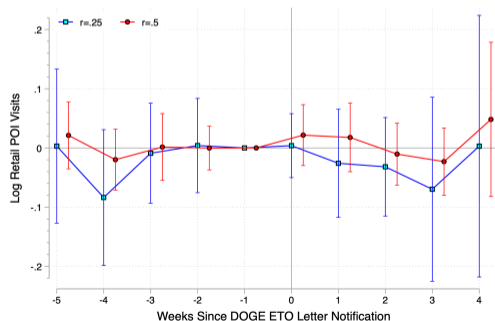
B. OLS Estimation Results



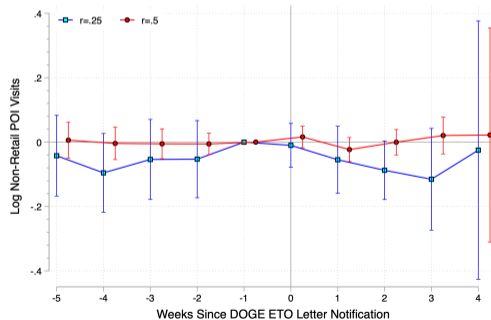
Notes: Solid bars indicate 95% Conley CIs with maximal SAC cutoff, dashed bars are those clustered by Census block group.

$$Y_{j,r,s,t} = \sum_{t=-5, e \neq -1}^{+4} \beta_t \cdot Spillover_{i,t} + \mu_i + \delta_{s,t} + \epsilon_{j,r,s,t}$$

A. Retail POI Visits

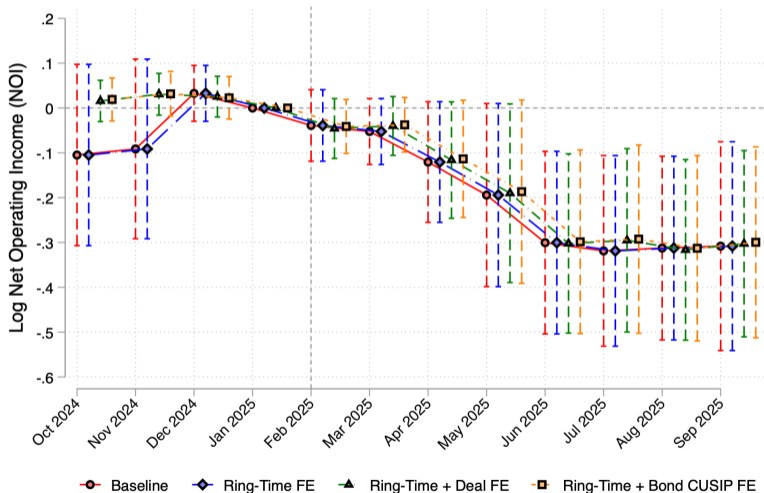


B. Non-Retail POI Visits



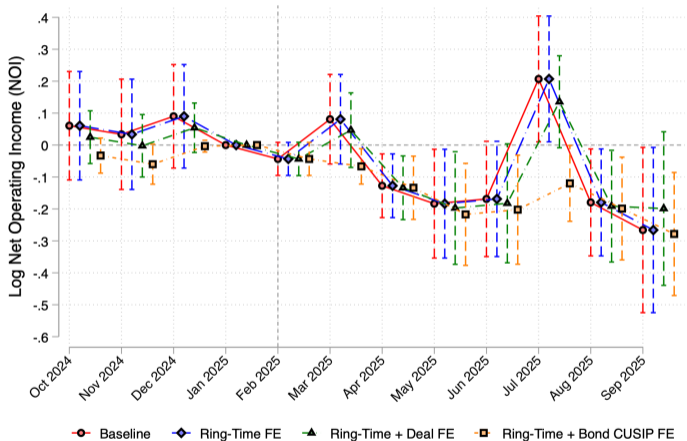
DYNAMIC SPATIAL DID: NEARLY EQUAL NEG. SPILLOVERS TO NOI WITH NO DIRECT GSA EXPOSURE (0.5-MILE INNER RING)

[GO BACK](#)



DYNAMIC SPATIAL DID FOR CMBS PRICES: SOME EVIDENCE OF BOND POOL RESTRUCTURING

[GO BACK](#)



- Clear negative trend on within-CUSIP prices

- The case of Easterly Government Properties, Inc.
 - ▶ DOGE notification on 130 S. Elmwood Ave, Buffalo, NY
 - ▶ Dates: 2/5/2025 & 3/11/2025
 - ▶ Agency: NATIONAL LABOR RELATIONS BOARD
 - ▶ Rentable space: 37,644 sq. ft.

Govt. REIT: Easterly Government Properties, Inc. [Go back](#)

Market Summary > Easterly Government Properties Inc

23.36 USD

[+ Follow](#)

-5.32 (-18.55%) ↓ year to date

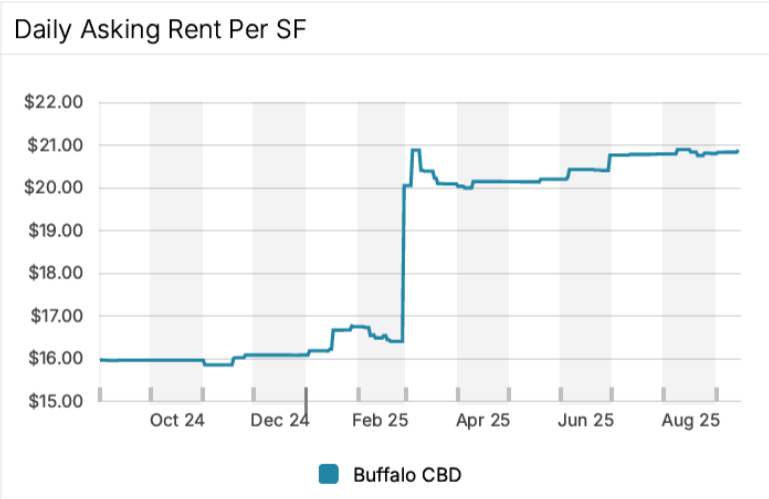
Sep 16, 10:26 AM EDT • Disclaimer

1D | 5D | 1M | 6M | YTD | 1Y | 5Y | Max



Impact of NLRB lease cancellation on Buffalo office rents

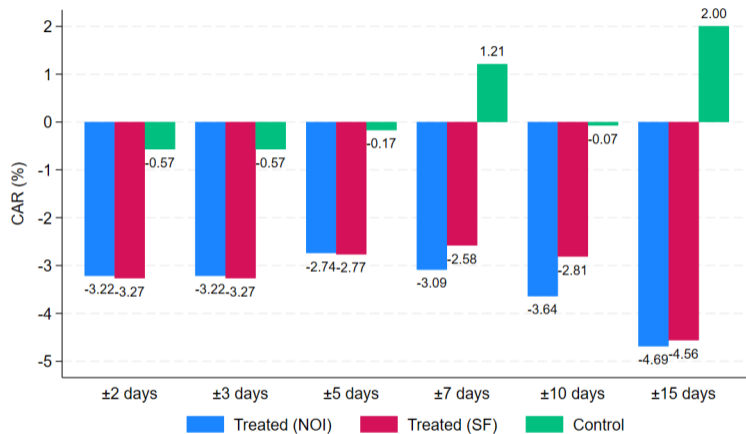
[Go back](#)



Source: CoStar submarket report for Buffalo, NY

CARs FOR D.C. OFFICE REITs AT DIFFERENT HORIZONS

[GO BACK](#)



- Matched DiD + standard CAR analysis comparing total returns of high/low D.C. office exposure REITs to S&P 500

MATCHED DIFF-IN-MEANS FOR PRE VS. POST-DOGE GSA LEASES

$$Y_{i,j} = \zeta_j + \beta \cdot PostDOGE_i + \varepsilon_{i,j} \longrightarrow \zeta_j \text{ matched pair FE}$$

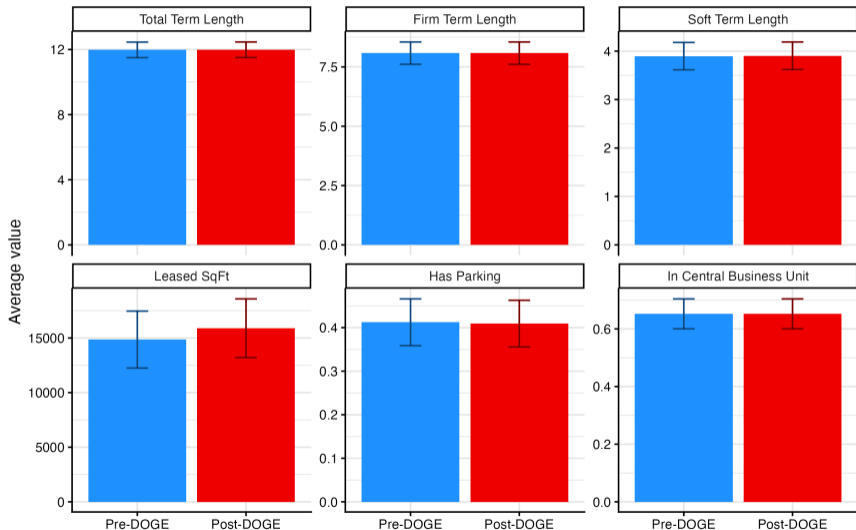
<i>Outcome:</i>	Total Term Length	Firm Term Length	Soft Term Length	Log Rent per SqFt
Post-DOGE	-0.055** (0.025)	-0.095** (0.039)	0.035 (0.053)	0.063* (0.033)
Observations	650	650	638	650
Matched Pair FE	Yes	Yes	Yes	Yes
<i>Matching variables</i>				
Rent per square foot	✓	✓	✓	
Leased square footage	✓	✓	✓	✓
Parking	✓	✓	✓	✓
CBD	✓	✓	✓	✓
Total lease term				✓
Soft term length				✓
Firm term length				✓

Notes: Poisson estimator applied to lease term length variables.

[Go back](#)

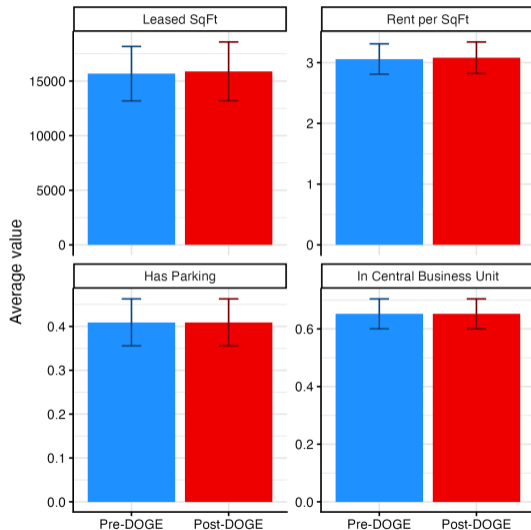
MATCHING PRE VS. POST-DOGE LEASES FOR RENT PSF

[GO BACK](#)



MATCHING PRE VS. POST-DOGE LEASES FOR LEASE TERM

[GO BACK](#)



- **Idea:** construct govt. business dependence variables to proxy for **production externality**
- Sample construction
 - 1 Obtain the property addresses for 1-mi ring private-tenant office buildings → 326 securitized properties
 - 2 Use CoStar to obtain, as of June 2026, **bldg-level** quarterly rent and occupancy, **tenant-level** name, sqft, lease start, end, industry
 - Trepp doesn't provide price-quantity decomposition of NOI, largest 5 tenants' names only
 - Of 3,577 unique tenants, **82%** have lease commencement date prior to January 30, 2025
 - Only use leases signed pre-DOGE to construct exposure measures
 - 3 Merge CoStar bldg-level quarterly data with Trepp's loan-level data
 - 4 Hand-match contractors in USASpending.gov w/CoStar tenant name to collect FY 2015-2024 federal govt. award information

- Tenant-level award exposure

$$GovExp_j = \frac{1}{10} \sum_{\tau=2015}^{2024} \frac{Award_{j,\tau}}{10^6}$$

- Pre-DOGE SF weights in building i :

$$w_{i,j} = \frac{SF_{ij}^{Pre}}{\sum_{k \in \mathcal{J}_i} SF_{ik}^{Pre}}$$

- Building-level dependence:

$$GovDep_i = \sum_{j \in \mathcal{J}_i} w_{i,j} GovExp_j.$$

- Use top $x\%$ of $GovDep_i$ to define $HighNonDOGEGovExp$
 - ▶ Define $HighDOGEEExp$ in an analogous way

	Obs/Count	Mean	Std Dev
<i>Panel (A): Tenant-level</i>			
Total obligations (\$M)	3,577	23.16	262.27
DOGE obligations (\$M)	3,577	7.89	133.31
Non-DOGE obligations (\$M)	3,577	15.27	199.82
<i>HighNonDOGEGovExp</i>	3,770	0.054	0.226
<i>HighDOGEEExp</i>	3,770	0.046	0.210
<i>Panel (B): Building-level</i>			
Total obligations (\$M)	326	254.16	873.01
DOGE obligations (\$M)	326	86.62	438.57
Non-DOGE obligations (\$M)	326	167.54	668.92
<i>HighNonDOGEGovExp</i>	321	0.050	0.218
<i>HighDOGEEExp</i>	321	0.044	0.205

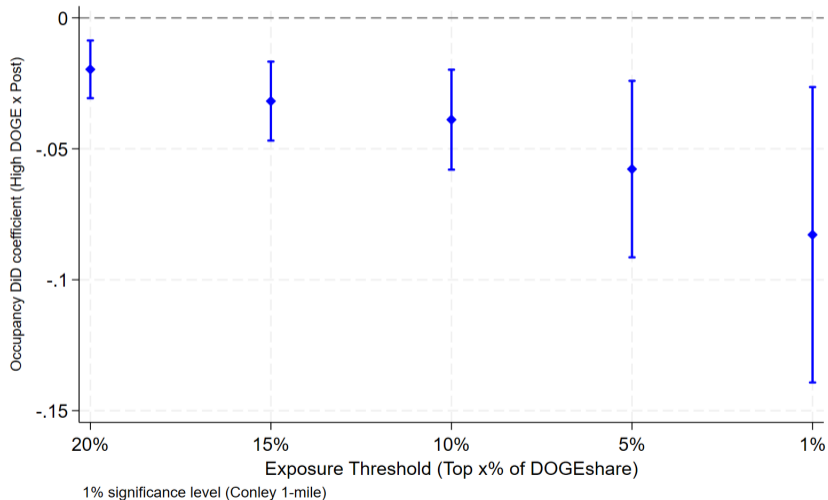
INDUSTRY MIX OF GOVT. CONTRACT EXPOSED BUILDINGS

[GO BACK](#)

Group	Industry	Tenant Share	Occupied-SF Share
<i>Panel (A): Overall baseline sample</i>			
	Professional, scientific, and technical services (54)	27.0%	41.9%
	Other services (81)	17.6%	16.5%
	Finance and insurance (52)	5.5%	6.3%
	Information (51)	3.5%	5.0%
	Health care and social assistance (62)	10.6%	4.9%
<i>Panel (B): High DOGE exposure buildings</i>			
	Professional, scientific, and technical services (54)	31.0%	55.2%
	Other services (81)	24.1%	15.9%
	Educational services (61)	3.4%	6.1%
	Finance and insurance (52)	5.7%	3.5%
	Information (51)	2.9%	3.1%
<i>Panel (C): High non-DOGE government exposure buildings</i>			
	Professional, scientific, and technical services (54)	27.1%	33.0%
	Other services (81)	15.8%	19.7%
	Finance and insurance (52)	5.9%	8.3%
	Educational services (61)	3.4%	5.3%
	Real estate and rental and leasing (53)	3.9%	4.7%

PRODUCTION EXTERNALITY MONOTONE IN DEGREE OF EXPOSURE TO DOGE AGENCY CONTRACTS

[GO BACK](#)



- **DOGE savings** = non-discounted value of all future payments, assuming no force majeure events and that all renewal options are exercised
 - ▶ This is a maximal measure because historically 2-3% of leases get canceled each year and not all renewals get exercised
- At height of cancellations in March 2025, DOGE reported \$660 M in lease savings nationwide (Politico 2025)
 - ▶ We still cannot replicate this directly → obtain \$433 M if we total individual savings from the DOGE website
 - ▶ Many \$0 savings (in theory, possible if lease paid in advance until its expiration) [Targeting](#)
- Ignoring renewals and using the GSA official payment roster, we get **\$220 M in nationwide savings**, or \$76 M for just D.C. metro
 - ▶ ⇒ Even in 5% best-case scenario, value losses still exceed savings
 - ▶ Additional 5-year losses of \$53 M from erosion of property tax base [Details](#) [Multipliers](#) [Website](#)

SIMULATION APPENDIX

Symbol	Parameter	Value	Description
μ	Drift rate	0.020	Annual baseline growth in property values
σ	Valuation volatility	0.100	Annualized standard deviation of value (market risk)
θ_{DOGE}	Jump size	0.155	Average proportional loss per jump for ETO-notified
θ_{ETO}	Jump size	0.073	Average proportional loss per jump for ETO-eligible
θ_{SPILL}	Jump size	0.158	Average proportional loss per jump for private-tenant spillover
λ	Jump intensity	0.150	Annual probability of ETO execution (Poisson)
T	Simulation horizon	$\{1, 2, 3, 4, 5\}$	Horizon in years (shock persistence parameter)
N	Monte Carlo iterations	50,000	Number of random draws per group and horizon

- Jump intensity $\lambda = 0.15 \implies$ average annualized 15% chance of ETO execution
 - ▶ Reflects conditions as of March 2025 \longrightarrow could be lower in the end
 - ▶ Average waiting time of $1/\lambda = 6.67$ years, beyond typical soft term length
- Other parameters based on CoStar reports for post-COVID D.C. office market
- T controls DOGE shock persistence (e.g., $T = 5$ is soft term length)

SIMULATION: HEDONIC REGRESSION RESULTS

[GO BACK](#)

Variable	Coefficient	Std. Error	<i>t</i> -Stat	<i>p</i> -Value
Rentable Building Area ('000s sq. ft.)	0.0023***	0.0009	2.67	0.009
Property Age at Appraisal	-0.0206**	0.0082	-2.52	0.013
Property Age at Appraisal Squared	0.0001*	0.0001	1.66	0.098
Building Quality/Class FEs	✓			
Building Form/Vertical Scale FEs	✓			
Valuation-Year Market Condition FEs	✓			
# Properties	133			
Adj- R^2	0.760			

Notes: Dependent variable is the natural logarithm of property value. Rentable area is expressed in thousands. Regression results are estimated using the sample of Washington, D.C. Trepp properties with non-missing covariates. Robust standard errors are clustered at the property level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

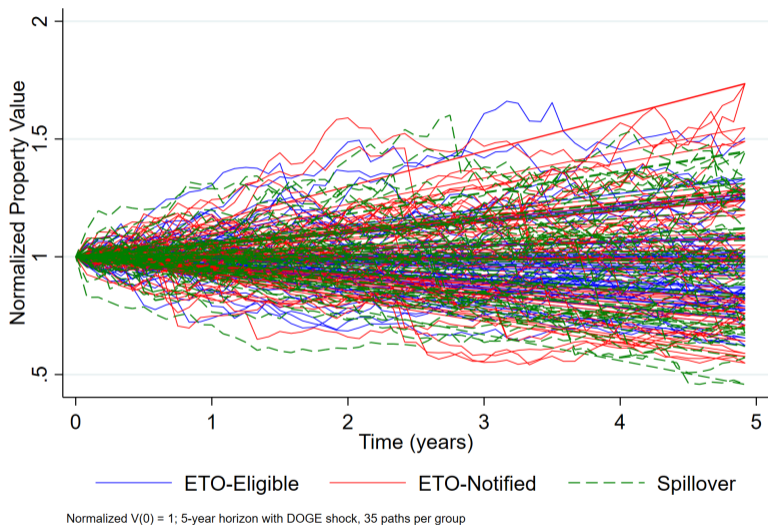
FULL SIMULATED LOSSES BY HORIZON AND GROUP

[GO BACK](#)

Group	Value at Risk (VaR)				Expected Shortfall (ES)			
	20%	50%	75%	95%	20%	50%	75%	95%
<i>Panel A: Horizon $T = 1$ year</i>								
ETO-eligible	0.009	0.026	0.043	0.073	0.036	0.048	0.061	0.088
ETO-notified	0.000	0.023	0.046	0.087	0.028	0.051	0.070	0.107
Spillover	0.393	0.474	0.545	0.657	0.514	0.561	0.614	0.709
<i>Panel B: Horizon $T = 2$ years</i>								
ETO-eligible	0.031	0.057	0.081	0.121	0.071	0.087	0.106	0.141
ETO-notified	0.021	0.050	0.082	0.136	0.069	0.090	0.115	0.161
Spillover	0.844	0.961	1.062	1.216	1.016	1.083	1.156	1.285
<i>Panel C: Horizon $T = 3$ years</i>								
ETO-eligible	0.056	0.088	0.118	0.166	0.105	0.125	0.147	0.189
ETO-notified	0.037	0.078	0.117	0.181	0.101	0.127	0.157	0.212
Spillover	1.313	1.460	1.581	1.765	1.525	1.606	1.694	1.847
<i>Panel D: Horizon $T = 4$ years</i>								
ETO-eligible	0.082	0.119	0.153	0.210	0.139	0.162	0.188	0.236
ETO-notified	0.059	0.107	0.152	0.224	0.133	0.163	0.196	0.259
Spillover	1.793	1.964	2.109	2.323	2.042	2.138	2.241	2.416
<i>Panel E: Horizon $T = 5$ years</i>								
ETO-eligible	0.108	0.152	0.192	0.255	0.175	0.201	0.231	0.286
ETO-notified	0.082	0.137	0.188	0.268	0.166	0.199	0.238	0.307
Spillover	2.283	2.476	2.636	2.871	2.561	2.667	2.782	2.977

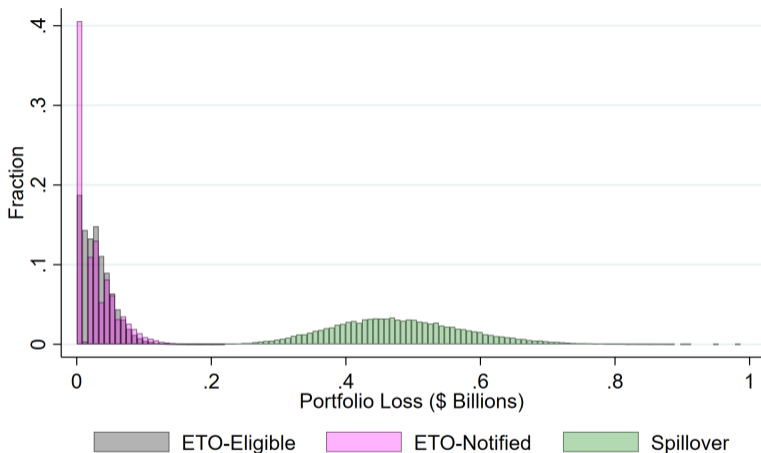
SIMULATED PATHS FOR THREE EXPOSURE GROUPS

[GO BACK](#)



1-YEAR PORTFOLIO LOSS DISTRIBUTIONS

GO BACK



VaR (20/50/75/95) in USD Billions

ETO-Eligible (0.013/ 0.029/ 0.045/ 0.074) ETO-Notified (0.025/ 0.041/ 0.059/ 0.098) Spillover (0.393/ 0.474/ 0.545/ 0.657)

- Spillover loss distribution shifts right and becomes more skewed as $T \uparrow$

- Smaller offices usually have fewer loans in the capital stack, and safer, larger buildings with major tenants are more likely to be securitized
- **Size adjustment:** non-securitized offices are about 19.5% the size of securitized offices; assuming that, *conditional on size*, losses are similar for securitized and non-securitized buildings, we scale losses by relative average size
- **Securitization rates (Moody's vs. Trepp):** Moody's CRE is the full office universe; Trepp contains only securitized properties, so for each group g we define the securitization rate as $sr_g = \# \text{securitized} / \# \text{total}$
- **Total loss multiplier:** for each group g we inflate securitized losses using $\text{Multiplier}_g = 1 + 0.195 / sr_g$
- **Numerical example (Spillover, 5y, 50% ES):** securitized ES_{50} for spillovers is 1.996 B; total-market ES_{50} is $1.996 \times (1 + 0.195 / 0.282) \approx 3.38$ B
 - ▶ ETO-eligible $sr = 50.0\%$; ETO-notified $sr = 41.2\%$; compared to 28.2% for private-tenant bldgs \rightarrow govt. tenants considered safer

OTHER SOURCES OF FALLOUT FROM DOGE [GO BACK](#)

- Our estimates of total value losses are **conservative** for several reasons:
 - ① Attenuation bias in the diff-in-diff β_g due to some quarterly reporting of NOI
 - ② Losses are only for securitized properties for which we observe frequently reported cash flows
 - ★ Extend this to non-securitized properties using Moody's CRE
 - ★ But non-securitized properties are much smaller, on average
 - ③ Omitted reference category: GSA leases which will become ETO eligible within next 4 years
- Headline estimates also exclude several other possible costs:
 - ▶ **Property tax revenues:** at 1.89% rate and 100% assessment ratio for D.C. offices → **additional loss of \$53 M** (5-year PDV, $r = 3\%$)
 - ★ Savings for federal taxpayers come at expense of local taxpayers in high-GSA density areas
 - ▶ GE forces: cascading vacancies within the same building, spillovers through job losses, real production externalities through contractors

WHAT TO DO WITH THESE ESTIMATES? [GO BACK](#)

- Estimates based on defense contract spending fall between 1 and 2
 - ▶ Due to procurement contracts involving supply chain links across locations, true multiplier may be larger (Park, Zhou, Zubairy 2025)
 - ▶ Multipliers tend to be bigger during contractions than expansions (Barnichon et al. 2022)
- We find a *local asset value multiplier* of $8.68 = (\$660 \text{ M}/\$76 \text{ M})$
 - ▶ Or, in terms of RE cash flows, one-year multiplier of 0.52x
- To translate this into a government real estate spending multiplier would need...
 - ▶ Mapping from real estate inputs into production
 - ▶ How much of the multiplier is due to realized shock vs. changes in agents' expectations?
 - ▶ Re-leasing hazard rates for long-time govt. office buildings → as of January 2026, none of the terminated spaces in our sample have been re-occupied
- Not clear that DOGE announcements are welfare-reducing: relative multiplier from rebating federal vs. state + local tax dollars?

THEORY APPENDIX

- Extend contingency option pricing model of Jarrow (2018,21); Choi et al. (2025)
 - ▶ Continuous trading model with finite horizon T (lease expiration date)
 - ▶ Two traded assets: default-free money market account and default-free zero-coupon bond
 - ▶ Properties priced as discounted sum of future cash flows + terminal value
- **Federal lease contingency components:**
 - ▶ ETO exercised at stopping time $\tau \in [0, T]$, with expiration date $T \rightarrow$ Poisson λ_τ
 - ▶ α advance notice period to the landlord
 - ▶ η time at which point rental losses stop and vacant space gets re-occupied \rightarrow Poisson λ_η
- **Thought experiment:** compare two properties with different ETO salience
 - ▶ Landlord who ignores ETO underprices rents \implies CMBS bond price (claim to pool of properties) adjusts down when ETO exercise intensity $\lambda_\tau \uparrow$

- Extend contingency option pricing model of Jarrow (2018,21); Choi et al. (2025)
- Standard model ingredients:
 - ▶ Continuous trading model with finite horizon T (lease expiration date)
 - ▶ Two traded assets: default-free money market account and default-free zero-coupon bond
 - ▶ Time value of money market account as $B(t) = e^{\int_0^t r_u du}$
 - ▶ Filtered probability space: $(\Omega, \mathcal{F}, \mathcal{F} = (\mathcal{F}_t)_{t \in [0, T^*]}, \mathbb{P})$, \mathcal{F} σ -algebra of events
- First + Third Fundamental Theorems of Asset Pricing $\implies \exists$ risk-neutral prob. measure \mathbb{Q} s.t. discounted price $p(t, \mathbb{T})$ of risk-free bond is a martingale for $\mathbb{T} \in [0, T]$
- **Federal lease contingency components:**
 - ▶ ETO exercised at stopping time $\tau \in [0, T]$, with expiration date $T \longrightarrow$ Poisson λ_τ
 - ▶ α advance notice period to the landlord
 - ▶ η time at which point rental losses stop and vacant space gets re-occupied \longrightarrow Poisson λ_η

KEY RESULT: UNDERPRICING OF ETO RISK [GO BACK](#)

- Consider two landlords with otherwise identical GSA-leased properties: one places zero probability on ETO exercise, and the other assumes it could happen

$$\frac{V(t)}{B(t)} = \mathbb{E}_Q \left[\sum_{s=t+1}^T \frac{R}{B(s)} + \frac{V(T)}{B(T)} \right] \quad \text{(Dormant ETO property)} \quad (1)$$

$$\frac{\tilde{V}(t)}{B(t)} = \mathbb{E}_Q \left[\sum_{s=t+1}^{\tau} \frac{\tilde{R}}{B(s)} + \underbrace{\sum_{s=\eta+1}^T \frac{\tilde{R}}{B(s)}}_{\text{Cash flows after re-leasing}} + \frac{V(T)}{B(T)} \right] \quad \text{(ETO-salient property)} \quad (2)$$

Proposition 1: Underpriced Rents for Non-Salient ETO Leases

The rent payments (\tilde{R}) associated with a lease that has a strictly positive probability of ETO exercise are higher than the rents under a lease without an ETO (R).

TRANSITION TO A HIGH-INTENSITY TERMINATION REGIME (DOGE)

- Regime-switching process $X_t \in \{L, H\}$ follows: [Go back](#)

$$Q = \underbrace{\begin{pmatrix} -q_{LH} & q_{LH} \\ q_{HL} & -q_{HL} \end{pmatrix}}_{\text{transition matrix}}, \quad \lambda_\tau(t) = \underbrace{\begin{cases} \lambda_\tau^L & X_t = L \\ \lambda_\tau^H & X_t = H \end{cases}}_{\text{lease termination rates}} \quad (3)$$

- $q_{L,H}$ prob. of switching to more aggressive cancellation policy (early 2025 DOGE creation)
- $q_{H,L}$ prob. of reversion to baseline regime (recent partial rescissions of DOGE terminations)

Proposition 4: CMBS Price Comparative Statics

Let $\widehat{\phi}(t, i)$ be the arbitrage-free price of a CMBS bond backed by a pool of N properties in regime $i \in \{H, L\}$, where a fraction θ_1 are subject to ETO risk under a regime-switching intensity process given by (1). Then we obtain the following comparative statics:

$$\frac{\partial \widehat{\phi}(t, i)}{\partial q_{LH}} < 0, \quad \frac{\partial \widehat{\phi}(t, i)}{\partial q_{HL}} > 0, \quad \frac{\partial \widehat{\phi}(t, i)}{\partial \lambda_\tau^i} < 0$$

MODELING CONTAGION EFFECTS THROUGH CMBS MARKETS

- Suppose nearby properties, including those without any direct ETO exposure, suffer adverse impacts from federal terminations [Go back](#)
- Fraction of non-ETO properties θ_0 within the pool get penalty $\varsigma > 0$

Proposition 5: Exposure Share Effects on Bond Prices

Denote $\widehat{\phi}_c(t, i)$ the arbitrage-free price of a CMBS bond at time t , conditional on starting in regime $i \in \{H, L\}$, in the presence of regime-switching ETO risk and spillover effects at rate $\varsigma > 0$. Then:

- 1 The bond price is strictly decreasing in the spillover parameter ς :

$$\frac{\partial \widehat{\phi}_c(t, i)}{\partial \varsigma} < 0.$$

- 2 The bond price is strictly increasing in the per-period adjustment factor $\Xi = 1 - \varsigma(1 - \pi(s, i))$ (i.e., the share of unaffected non-ETO cash flows):

$$\frac{\partial \widehat{\phi}_c(t, i)}{\partial \Xi} > 0.$$

- Suppose landlords could purchase a contract to insure against ETO risk
- Value of insurance depends on grace period length α and (inverse) probability of finding a new tenant η

Proposition 6: ETO Insurance Premium

Suppose there is one landlord and one federal tenant. Consider a soft term in which the tenant can exercise an early termination option (ETO). Suppose the tenant sends its ETO notification at τ with the grace period α and the random time η at which a replacement tenant can occur. Then the ETO insurance premium is:

$$c = \frac{R \mathbb{E}_{\mathbb{Q}} \left[\sum_{h=\lceil \tau \rceil + \alpha + 1}^{\min(\lceil \eta \rceil, t_m)} \mathbf{1}_{\{t_0 < \tau \leq t_m\}} e^{-\int_0^{t_h} r_u du} \right]}{\mathbb{E}_{\mathbb{Q}} \left[\sum_{k=1}^{\lceil \tau \rceil + \alpha} p(0, t_k) \right]}$$

ARBITRAGE PRICING FRAMEWORK \implies 3 TESTABLE HYPOTHESES

- **Hypothesis 1:** More aggressive govt. lease cancellation policy \implies property-level value losses \uparrow and CMBS prices \downarrow [Go back](#) [Simulation](#)
- **Hypothesis 2:** Properties receiving an ETO cancellation exhibit a decline in NOI, relative to otherwise similar properties which did not receive a notification
- **Hypothesis 3:** Through contagion effects, properties located nearby ETO-notified buildings exhibit similar declines in NOI, property values, and CMBS bond prices.
 - ▶ Propose separate tests to pinpoint underlying mechanism for these contagion effects
- Motivates a diff-in-diff analysis in which we compare GSA properties with a vested ETO option to those not-yet eligible
 - ▶ **Idea:** risk of contamination is low for govt. leases with at least a few years left before the ETO option vests
 - ▶ Assumes that govt. will not try to cancel early through non-ETO means going forward...

Leontief-Based Production Externalities

$$\Delta x = (I - A)^{-1} \Delta d$$

- $x \in \mathbb{R}^J$: vector of gross output / activity by contractors
- $d \in \mathbb{R}^J$: vector of final demand by contractors.
- Δd : DOGE shock to demand (ETO \Rightarrow disrupt agency activity, procurement)
- $I \in \mathbb{R}^{J \times J}$: identity matrix, $A \in \mathbb{R}^{J \times J}$: IO coefficient matrix
- $(I - A)^{-1}$: **Leontief inverse**; maps the DOGE shock Δd through supply chain
- **Application: Tenant-based exposure** (tenant k in bldg i)

$$Exposure_i = \sum_{k \in \mathcal{T}(i)} w_{i,k} \cdot [(I - A)^{-1} \Delta d]_k \approx -\theta \sum_{k \in \mathcal{T}(i)} w_{i,k} G_k$$

- 1 $\mathcal{T}(i)$: set of tenants located in building i
- 2 $w_{i,k}$: tenant weight (e.g., leased sqft share).
- 3 G_k : reduced-form proxy for tenant k 's exposure to govt. contract demand shock
 \rightarrow Empirically construct G_k , test impact on rent (price) or occupancy (q'ty)