

# RP3031

# INFORMATION AND RETROFIT: ENERGY/CARBON DISCLOSURE AT THE BUILDING RETROFIT INVESTOR-USER INTERFACE

## Research Question

If the NABERS disclosure signal mitigates the split incentives problem across a single leasing contract in the real-estate supply chain what might happen to the efficacy of that signal across multiple sequential contracts?

## Need for the Research

The “split incentives” problem discourages investment in the energy-efficiency retrofit of existing buildings. It occurs when building owners underinvest in these retrofits because they do not pay energy utility costs. Energy-efficiency ratings, such as that provided by the National Australian Building Energy Rating System (NABERS), may mitigate this problem by reducing information asymmetry across the landlord-tenant leasing contract. Disclosure “signals” across the lease contract to the prospective tenant who will pay the energy costs. This in turn incentivizes the building owner to invest in retrofit.

Literature on this topic varies in its conclusions as to the efficacy of energy-efficiency disclosure in signaling across the lease contract. Rental premiums in energy efficiency rated buildings are taken as evidence of the efficacy of the disclosure signal. The first objective of this research is to repeat this research using a primary dataset sourced from the NABERS rated buildings in the portfolio of the project research partner Brookfield Global Integrated Solutions.

The second and unique objective of this research is to test the potential for the information age leveling of the cost of transacting on either side of the boundary of the firm and the resultant intermediation / disintermediation of real-estate

supply chains. If there is a progressively weaker negative correlation between a NABERS rating and rental premiums with the number of sequential contracts on the real-estate supply chain, that is the number of “splits”, then that disclosure signal will have been isolated and its efficacy observed.

## Relevance

If the effects of the energy-efficiency disclosure signal are found to be progressively weakened with an increase in “splits,” then this can be seen as indicative of the need to adapt mandatory disclosure policy to the increasingly intermediated and dis-intermediated supply chains of the information age.

## Methodology

Questionnaires will be sent to the Facilities Managers of our research partner Brookfield Global Integrated Solutions. Real-estate supply chains will be analysed by degree of “split” that is number of sequential contracts between prospective energy-efficiency retrofit investor and energy-utility payer.

Contracts	Real-estate Supply Chain Type
0	Owner/occupant.
1	Landlord and Tenant
2	Landlord, Tenant and Sub-tenant.
3	Landlord, Tenant and Sub-sub tenant.
2+	“Co-working” workspace, bundled with energy utilities and let on very short leases of days, hours or minutes.

Fig. “Co-working” workspace. Energy utilities are bundled gross with the workspace on very short term leases of weeks, days, or hours.



Source WeWork. West Broadway, NYC, NY, USA.

The data will be analysed to test the following hypotheses:

<b>H1</b>	Tenancies in NABERS rated buildings pay rental premiums Rental price will be regressed against NABERS ratings
<b>H2</b>	Disclosure of NABERS ratings increases rental premiums Rental price will be regressed against the undisclosed indicative NABERS rating and b1 and b2 will be compared.
<b>H3</b>	H3. There is a negative correlation between the number of contracts between energy efficiency retrofit investor and utility payer on real estate supply chains and the NABERS rating Controlling for building characteristics NABERS ratings will be regressed against the number of sequential contracts in the real estate supply chain:

## Results and Conclusions

... forthcoming

## Anticipated Impacts

If H1 and H2 test positive then this contributes to the literature which finds that energy efficiency information disclosure signals effectively across either lease or sales contracts in the real estate supply chain.

If additionally H3 tests positive and it is found that the efficacy of the disclosed NABERS signal is stronger in those supply chains with no transactions (that is owner/occupant) or single sales or lease transactions retrofit-investor than those supply chains with multiple sequential transactions then this informs or indicates the need to modify disclosure policy to adapt to the increasingly recombinant real estate supply chains of the information age.

**How does the efficacy of NABERS vary across differing real-estate supply chains?**

**What does this mean for mandatory energy-efficiency information disclosure policy in the Information Age?**

## Further information

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