

THE INCOME TRANSFER EFFECTS OF A RENT CONTROL PROGRAM

Edward J. Chambers
Faculty of Business
University of Alberta
Edmonton, Alberta
T6G 2R6

Between 1971 and 1981 Alberta recorded the highest growth rates in factor inputs and output of any province since the 1900-1914 "wheat boom" era. In such growth conditions it is nontradeable output sectors that are severely impacted by the expansion in local aggregate demand. Prices in these sectors, of which housing is perhaps the key component, are governed by demand and supply functions whose underlying parameters are specific to the regional market. Market conditions in nontradeables are unlike those in the tradeable sector, where generally neither local demand shifts nor altered local supply functions affect the internationally determined price and availability of the good in question. Attention during a regional boom is certain to be on the availability and price of housing. The fact that during the years 1976-79 the Alberta housing market was subject to rent controls presents an unusual opportunity to assess the effects of controls applied under boom conditions on this important nontradeable sector. This note does not attempt to offer a full evaluation, but it does consider one element; namely, the impact of the Alberta rent control and decontrol program on rental price and induced income transfers in the Calgary and Edmonton metropolitan areas. Further, these estimates may be of interest to those jurisdictions where rent controls remain in force.

Context

Alberta, like other provinces, responded positively to the 1975 federal anti-inflation program request for rent controls. It was also the first to

decontrol rents, although the majority of provinces, including Ontario and Quebec, still retain these controls. From the outset Alberta declared and followed its intention of keeping the controls temporary. The statement of the Premier on November 12, 1975, is notable for its substance [1:1234-5]. He offered the judgment that rent controls had not worked well where they had been implemented, except in isolated cases, and that the best defense against rising rents was expansion of housing supply through the free market system.¹ He explained, however, that, given (i) housing excess demand pressures in the Alberta market in late 1975, and (ii) the fact that under the Anti-Inflation Program incomes were controlled, the province would impose "temporary rent regulation legislation" for an eighteen month period commencing January 1976. New construction was exempted, and the Act included a strict prohibition on conversions to condominiums or other forms of withdrawal from the rental stock. A three year period of decontrol followed, starting in July 1977, in which rent controls were continued for units with lower rental values, defined as rents less than \$375/month for 3-bedroom units down to \$275/month for 1-bedroom units. All controls disappeared effective July 1, 1980.

Impact of the Rent Control Program on Nominal Rents

Estimates using conventional secondary data sources are offered for the impact of the rent control program on nominal rents in the Calgary and Edmonton metropolitan areas. These centres, containing more than two-thirds of Alberta's population, were heavily impacted during the 1976-81 period, the most marked part of the boom.²

The model estimated is a price adjustment mechanism in which the vacancy rate as a proxy for excess demand or supply determines the rate of change in rent. Smith [8], following Blank and Winnick [4], demonstrates that this is a reduced form expression of a model in which the supply of housing services is fixed in the short run and demand is:

¹Between 1976 and 1981 inclusive the Alberta Government through its housing agencies financed 44,453 housing starts, or 18.9 percent of total starts. This represented a provincial commitment unprecedented either in Alberta or in any other province. Financing came through the Alberta Heritage Trust Funds, whose housing-related assets amounted to \$2.63 billion, or 27.1 percent of marketable assets for the fiscal year ending March 31, 1982. Provincially financed starts continued at a significant pace in 1982 and 1983, amounting to 61.7 and 32.6 percent of total starts in the respective years (Correspondence with Alberta Municipal Affairs; Statistics Canada, (64-002); Alberta Heritage Trust Fund, *Annual Report 1981/82*).

²Lack of suitable data precludes application of the analysis to other urban centres such as Red Deer, Lethbridge, Medicine Hat and Grande Prairie.

$$D = f(R, H, Y, P)$$

where R is rent, H the number of households, Y real income per household, and P the price level. The vacancy level, VACL, is:

$$VACL = S - D$$

or

$$VACL = S - f(R, H, Y, P)$$

and the vacancy rate, VAC, is:

$$VAC = \frac{VACL}{S} = 1 - \frac{1}{S} f(R, H, Y, P)$$

The regression model specified for each city is:

$$\hat{R} = f(VAC, VACSQ, SEASON, CONTROL)$$

where \hat{R} = half yearly percent change in the rented accommodation index stated at annual rates

VAC = vacancy rate

VACSQ = square of the vacancy rate

SEASON = a seasonal dummy, with value 1 for the second half of the year, 0 otherwise

CONTROL = a rent control dummy with value 1 for the second half of 1976 to the second half of 1979, 0 otherwise.

The equation is nonlinear in the vacancy rate variable. The rate of increase in rents is expected to be inversely related to excess demand pressures proxied by the vacancy rate. However, it is likely that the effect of vacancy rates on rent changes will be nonlinear, as cost pressures limit the price effects of high vacancy rates and socio-political pressures impose constraints on the price response to low vacancy levels. The statistic of vacancy rates in the two cities is the CMHC measure for April and October from a sample survey of apartment structures containing six or more dwelling units [6:96]. This is a measure of rents for multiple dwelling units, and these, in fact, dominate the rental market in both cities. The measure of rent change is derived by transforming to annualized percentage changes the "Rented Accommodation" component index of the CPI for the respective cities [7]. Rents that make up this index are collected from tenants in tenant-occupied dwellings as part of the Monthly Labour Force Survey [9] and exclude (i) subsidized rental units; (ii) units used jointly for living and business; and (iii) rental units in hotel, motels, and institutions [8:55-59]. Quality adjustments are made largely on the basis of added or discontinued services. In the regression model, vacancy rate observations on April and October are paired with rates of rent increase

over six month intervals from January through July and July through January, commencing with January 1971 and ending with January 1986. Inspection of both the vacancy rate and rent percent change series indicated seasonality and necessitated introduction of a seasonal dummy.

The control period was identified as 1976 through the end of 1979. Termination in 1979 is justified because the control apparatus was running down and being dismantled in the first half of 1980. There is, however, a question about the effectiveness of controls in the first half of 1976, when efforts were concentrated on establishing a suitable administrative structure. On these points the interested reader may wish to consult Barry [3]. The regressions reported in Table 1 take the effective period as the second half of 1976 to the second half of 1979, but were also run to include the first half of 1976.

Table 1

REGRESSION RESULTS FOR CALGARY AND EDMONTON DEPENDENT VARIABLE: ANNUALIZED PERCENT CHANGE IN THE PRICE INDEX OF RENTED ACCOMMODATION FOR SIX-MONTH PERIODS

Time Interval: 1971 first half to 1985 second half

	Calgary	Edmonton
Constant	15.488	14.580
VAC	-2.165 (-3.78)	-1.799 (-3.21)
VACSQ	0.053 (1.17)	0.040 (0.76)
SEASON DUMMY*	-4.112 (-3.69)	-4.684 (-3.55)
CONTROL DUMMY**	-5.458 (-3.27)	-3.210 (-2.32)
AR (1)†	0.043 (0.18)	-0.152 (-0.74)
Adjusted R ²	.789	.682
Durbin-Watson	1.95	1.93
F-Statistic	22.00	13.03

* Value of 1 for the second half of the year and 0 otherwise.

** Value of 1 for the control period and 0 otherwise.

† Adjustment for first order serial correlation.

Results of the regression model in Table 1 show for each city expected signs and little first order serial correlation in the residuals. The vacancy rate is highly significant in both regressions, with a fall of 1 percent producing 2.2 and 1.8 percent increases in rent inflation in Calgary and Edmonton respectively. The signs attached to the squared vacancy rate are as expected, although neither coefficient is significant at the .1 level. The seasonal dummy is significant in both cities, indicating that rates of rental increases are generally lower in the second half of the year. The control dummy is significant at the 1 percent level in Calgary and the 2.5 percent level (one-tailed tests) in Edmonton. The coefficients indicate that the program on average lowered the rate of increase in rents by about 5.4 and 3.2 percent in Calgary and Edmonton respectively. A regression model with a slope as well as an intercept control dummy was attempted, but coefficients were not significant for either city at the .1 level.

If the first half of 1976 is added to the effective rent control period, the control variable remains significant at the respective levels, but the results indicate that the observed rents were less than market rents by 4.5 percent in Calgary and 3.0 percent in Edmonton. The smaller impact of rent control in Edmonton reflects the fact that although vacancy rates were low in both cities through the control period, the relative scarcity of rental units was more extreme in Calgary. The rent control and ensuing decontrol program in Alberta specified in advance the level of allowable rent increases; namely 10, 9, 8 and 8 percent in the respective years from 1976 through 1979. These allowable increases may be compared with the observed inflation rate (CPI, January to January) of 6.2, 8.9, 8.9 and 9.6 percent in the same period. Hence, controls suppressed the real increase in rents to zero or, put another way, maintained real rents at their pre-control levels.

Estimate of Income Transfer to Tenants as a Result of Controls

Before offering estimates of income transfer, it is useful to consider some key characteristics of tenant households as reported in the censuses of 1976 and 1981. Table 2 reveals that in both cities tenant household heads under 35 accounted for approximately three-fifths of tenants in both years, slightly more in 1981 and slightly less in 1976. These same age cohorts constituted only two-fifths of total household heads in both cities in both years. All other age cohorts were under-represented in tenancy relative to their prevalence in the household population.

Table 2
AGE CHARACTERISTICS OF TENANT HOUSEHOLD HEADS
1976 AND 1981: CALGARY AND EDMONTON

Age Cohort	Calgary				Edmonton			
	Proportion Total Households		Proportion Tenant Households		Proportion Total Households		Proportion Tenant Households	
	1976	1981	1976	1981	1976	1981	1976	1981
15 - 34	.42	.40	.58	.59	.40	.44	.65	.64

Source: 1976 Census (93-804), Table 14; 1981 Census (93-945), Table 33.

Table 3 reports tenant household median incomes for the year 1980 as reported in the 1981 Census.³ Tenant median income was just over one-half of median homeowner income. These coefficients should be quite stable, so it is not unwarranted to believe that income relationships were similar in 1976. Accordingly, we can say that the dominant direct beneficiaries of the rent control program were young adults and those with below average incomes.

Table 3
INCOME CHARACTERISTICS OF TENANT HOUSEHOLDS, 1980
CALGARY AND EDMONTON

	Calgary	Edmonton
(1) Median income tenant households	\$18,588	\$17,844
(2) Median income homeowner households	\$33,370	\$32,704
(3) (1) ÷ (2)	.556	.546
(4) Median income, all households	\$26,745	\$25,747
(5) (1) ÷ (4)	.695	.693

Source: 1981 Census (93-945), Table 31.

To estimate the magnitude of income transfers from landlord to tenant the estimated effect of controls on nominal rents was combined with the percent of gross income spent on rent by tenants. The effect of controls on rates of rent increase is taken as -5.0 and -3.1 percent in Calgary and Edmonton respectively, representing the average of con-

³Income data were not collected in 1976.

trol dummy coefficient values in the above regressions. The ratio of average rent payments to mediocre gross tenant household income for the year 1980 is estimated at .248 in Calgary and .236 in Edmonton. These numbers are consistent with well-documented rules of thumb that rental payments average 20 to 25 percent of gross income. Accordingly in Calgary, using a lower bound for rent outlays, tenants received from the control program an income gain of (.05) (.20) or 1.0 percent, while in Edmonton the gain was (.031) (.20) or 0.6 percent.

Summary and Conclusion

In Alberta's case rent controls permitted government intervention to meet the rapid change in rental market supply/demand relationships occasioned by an extraordinary economic boom. A unique feature of the Alberta experience was political commitment to, and execution of a decontrol program within pre-arranged time horizons. Within this environment of positive excess demand for housing and clearly signalled government intent, it is estimated that rent controls served to lower rents below what they would have been in the absence of controls by an average of 5.0 percent in Calgary and 3.1 percent in Edmonton. The estimated induced income transfer from landlords to tenants was 1.0 and 0.6 percent of the personal income of tenant households in Calgary and Edmonton, respectively. Since net income derived from residential rentals is quite small relative to total personal income, these estimated dollar transfers in relation to net rental income are clearly not trivial.

References

1. Alberta Hansard, 1975.
2. Alberta Treasury. *Alberta Economic Accounts*, 1984.
3. Barry, W. *Rent Controls in Alberta: A Brief History and Significant Issues*. Alberta Consumer and Corporate Affairs, 1981.
4. Blank, D. M., and L. Winnick. "The Structure of the Housing Market", *Quarterly Journal of Economics*, 67 (May 1953), 181-208.
5. Canada. 1976 Census (Cat. No. 93-804).
6. Canada. 1981 Census (Cat. No. 93-804).
7. Canadian Mortgage and Housing Corporation. *Canadian Housing Statistics*, 1985.
8. Smith, L. B., "A Note on the Price Adjustment Mechanism for Rental Housing", *American Economic Review*, 64 (June 1974), 478-81.
9. Statistics Canada. CANSIM Series, D488205, D488501, H246 and H248.

10. Statistics Canada. *The Consumer Price Index Reference Paper* (Cat. No. 62-553), 1985.
11. Statistics Canada. *Guide to Labour Force Survey Data*. (Cat. No. 71-528), 1979.