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Are Renters Being Left Behind? Homeownership and Wealth Accumulation in Canadian Cities

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Introduction

The promotion of homeownership is an important policy of governments around the world. One motivation for this support is the benefits to local communities from the greater neighbourhood involvement of homeowners.[1] For individual buyers, an often cited benefit of homeownership is that it is a good way to accumulate wealth. Certainly it is an important element of wealth; the median Canadian household has over 50 percent of their wealth in their home.[2] We are interested in just how much homeownership itself contributes to wealth. The greater homeownership's role in building household wealth, the bigger will be the wealth gap between owners and renters. This paper examines whether by not owning a home, do renters miss a critical opportunity to build wealth: do they miss the great wealth accumulation boat?

We do not compare actual renter and owner wealth. Rather, we contrast the wealth a household with a given income could amass if they buy a house with what they could accumulate if instead they rented the same unit. To do this we compare the wealth household could have achieved by buying a home and paying down the mortgages with what a renter could have amassed by investing an amount equal to the downpayment and then the difference between the annual owner and renter costs. Our analysis relies on data on house prices, rents, annual ownership and mortgage costs, interest rates, and investment returns for nine Canadian metropolitan areas between 1979 and 2006.

The results of this research show that only renters who are highly disciplined, savvy investors are able to match the wealth that owners can accumulate simply by making their mortgage payments. If they meet these criteria, in the best scenario for renters, they can accumulate over 24 percent more wealth than owners in Edmonton, Halifax, Montreal, and Regina, and they can accumulate at least as much wealth as owners in Ottawa, Vancouver, and Winnipeg. In Calgary and Toronto renters cannot on average over our study period match the wealth achievable through homeownership. However, in the best scenario when we take the average across these cities weighted by metropolitan area population, which gives Toronto a one-third weight, aggregate renter wealth is lower at 95 percent of owner wealth.

While achieving the same wealth as owners is possible in seven of the nine Canadian cities, it is not easy. In those cities where it is even possible to accumulate more wealth than owners, renters must be extremely disciplined. They must invest on average nearly 80 percent of the difference between the annual costs to owners and the cost to renters. This is approximately equivalent to nine percent of their gross income, well above the average rate for North America. If they only save one-half of the annual difference between owner and renter costs, instead of 95 percent of owner wealth, the weighted average across all nine areas is that renters end up with 67 percent of the wealth that owners have, and in no cities do they exceed owner wealth. They must receive at least

[1] See DiPasquale and Glaeser (1999), Green (2001), and Coulson, Hwang, and Imai (2003) for papers that examine the social benefits of homeownership.
[2] These and other wealth data come from the 1999 Statistics Canada Survey of Financial Security.

the total return from the Toronto Stock Exchange (TSE), and do so without significant investment management costs.[3] At the same time owners must choose the higher average payments from the lower risk 5 year term fixed rate mortgage.[4] Thus while we show that it is possible in many locations for renters to match owners in accumulating wealth, it is a daunting challenge

One reason renters are at a disadvantage in accumulating wealth is of homeownership's tax preferred status. The one-time exemption of taxation of capital gains in a principal residence plays an important role in allowing owners to accumulate more wealth than owners. In one scenario, 60 percent of the different between the gross and after tax and fee wealth ratios between renters and owners is because of taxes that affect investment gains but not the returns from a primary residence. The social benefits of homeownership may well justify this subsidy. Still, it is striking how much tax policy contributes to the gap in wealth between what renters and owners can amass.

Ultimately, homeownership offers a unique opportunity for households to accumulate wealth. It is not that renters cannot in many areas build wealth similar to that of owners, but that to do so demands a level discipline that most North American households have shown themselves unable to achieve. As well, they must follow investment patterns that are not the norm for small investors. This suggests that a tremendously significant benefit of homeownership for individuals is that the constraint of mortgage payments effectively forces home buyers to save by building equity through the repayment.

Background

The fundamental observation that drives our analysis is the striking difference between the wealth of homeowners and that of renters. Comparing overall averages between owners and renters is not particularly helpful because the large differences in their incomes explain the vast majority of the differences in wealth. In Table 1 we compare poorer owners and wealthier renters. For owners we have the wealth values for the 12.5^{th} and 25^{th} percentiles of the wealth distribution. Thus, 87.5 percent of owner households are wealthier than the former. For renters we use the 75^{th} percentile of renter wealth, so only 25 percent of renter households are wealthier. The incomes of these two groups are similar, with renter income approximately the average of the owner incomes. However, owner wealth is 80 to 175 percent larger. Housing wealth makes up a big part of this, as renters have greater non-housing wealth than both owner groups. A large number of factors can explain these differences besides just homeownership, yet the differences in wealth for two groups with similar incomes is quite striking. It does beg the question that is the focus of this paper, whether renters can indeed match homeowners in gains in wealth.

[3] For instance, either purchasing equities or an exchange traded funds directly through an on-line discount broker or using a low fee index fund.

[4] If they take a one year tem mortgage, the lower average payments means the bar for renters to achieve similar wealth is even higher. Matching owners is only possible for renters in Edmonton, Halifax, and Montreal, and they must save 90 percent of the difference in annual costs to do so.

Table 1 – Income and Wealth

	Owners		Renters	Ratio: Renters to Owners	
	12.5th Percentile	25th Percentile	75th Percentile	12.5th Pct Owners	25th Pct Owners
Non-Pension Wealth	$94,000	$143,460	$52,300	0.56	0.36
Housing Wealth	$67,520	100,255	$0	0.00	0.00
Other Wealth	$26,480	$43,205	$52,300	1.98	1.21
Percent in Housing	71.8%	69.9%	0.0%		
Income	$35,315	$45,735	$39,315	1.11	0.86

Notes: Percentiles are based on total wealth and are calculated separately for renters and owners. Income is census family before tax income. Gross wealth excludes pension wealth. Wealth data from the Statistics Canada, Survey of Financial Security, 1999.

This paper focuses on aggregate wealth. In doing so we avoid the issue of just how much wealth should be in housing and how much should be in other assets. The traditional research in finance on homeownership and wealth looks at housing wealth and optimal portfolio choice. This research suggests that households hold far too much in housing wealth.[5] More recent approaches such as Flavin and Yamashita (2002) take home ownership as a given and see how it affects the choice of other elements of the portfolio: they find that younger homeowners are more inclined to hold their non-housing wealth in low risk assets, to compensate for the risk level of real estate.

The most comparable work to that we present here is Hochguertel and van Soest (2001). They look at the joint investment decision for financial wealth and home equity and find that choosing homeowners increases financial wealth. The principal difference with our research is that what we present here traces out the possible wealth accumulation path. Hochguertel and van Soest study the observed choices made by households where we identify what households could achieve. There approach can result in biased findings if households that choose to rent are systematically less likely to save, not an unreasonable proposition as saving contributes to the ability to make a downpayment.

In markets without transactions costs, restrictions on capital, or taxes and with all manner of possible rental contracts, we would not expect any difference in risk and liquidity adjusted returns between renting and owning.[6] In the absence of these conditions, predictions from theory become more challenging because of the difficulty in the weighing tradeoffs. Homeownership grants tenure security to owners and the non-pecuniary benefits of being an owner occupier. In equilibrium these benefits mean that

[5] See Berkovec and Fullerton (1992) and Meyer and Wieand (1996) for combining the rent vs. buy decision with portfolio choice in a single framework.

[6] Owning vs. renting would be analogous to the Miller-Modigliani theory about the equality of debt and equity in firm valuation.

homeowners will accept a lower financial return on their house than is achievable from other assets. Renters have the ability to achieve a more diverse portfolio and are able to invest in assets, like stocks and bonds, which are substantially more liquid than housing.[7] These benefits should result in a lower equilibrium return for renters, as owners must receive a higher mean return as compensation for their lower liquidity and less diversified portfolio. These effects operate in opposing directions on the difference between the return to homeowners and what renters can achieve, making it hard for us to explicitly predict who should receive the higher return. The answer needs to be found in the data.

Our analytical approach is to measure how wealth would actually have grown for owners and renters between 1979 and 2006 in nine different Canadian metropolitan areas. Homeowners acquire home equity with their initial downpayment and as they pay down their mortgages and house prices change. Renters take the money they would have used for a downpayment and invest it.[8] Each year we compare an owner's total costs (mortgage, insurance, maintenance, and lawn care and snow removal) with the costs for a renter (rent and renter's insurance).[9] The renter invests this difference when renter costs are less and the homeowner invests when the reverse holds.

We start the analysis in 1979 and look at wealth after twenty five years, when the mortgage is fully amortized. After 1981, we compare wealth positions in 2006, so with each successive starting year the holding period declines. We do this for starting years through 1996. Thus, for the 1996 starting year we compare owner and renter wealth after ten years of paying down a mortgage and investing respectively. We assume no one moves during the analysis, and impose a ten percent downpayment along with the associated mortgage insurance costs.

In the analysis we limit the possible sources of variation in the choices of renters and owners. For renters these are how much of the annual difference in costs renters invest (50 vs. 100 percent) and the choice of investment (higher yielding equities – receiving the total return of the TSE – or zero risk, low yield GICs).[10] For owners, we allow them to take a mortgage where the interest is fixed for one year or five years. This gives us eight different scenarios per starting year per city. For each of these the initial analysis yields gross wealth numbers. We then reduce owner wealth for property acquisition and sales costs and renter wealth for investment management fees and taxes. We compare two fee levels, 0.75 and 2.25 percent per year on assets, reflecting investing in exchange traded or index funds for the former and an actively managed mutual fund for the latter. Investment returns are taxed as dividend and interest and capital gains income, with an assumed marginal tax rate of 35 percent. GIC income is entirely interest and the total return on the TSE is separated into dividend yield and capital appreciation components to identify the tax allocations.

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[7] Not only can these assets be sold in a day, instead of months as is often the case for housing, but selling a house also requires the financially and emotionally costly process of moving. Reverse mortgages and second mortgages do offer homeowners the opportunity to access housing wealth without moving.

[8] We account for a renter's half month's security deposit, on which they earn the savings rate.

[9] We assume both pay for other utilities themselves and consume the same amount.

[10] There are some cities and years when renter annual costs exceed those for owners. In this case, owners invest using the same guidelines as are applied in the scenario to renters.

Data

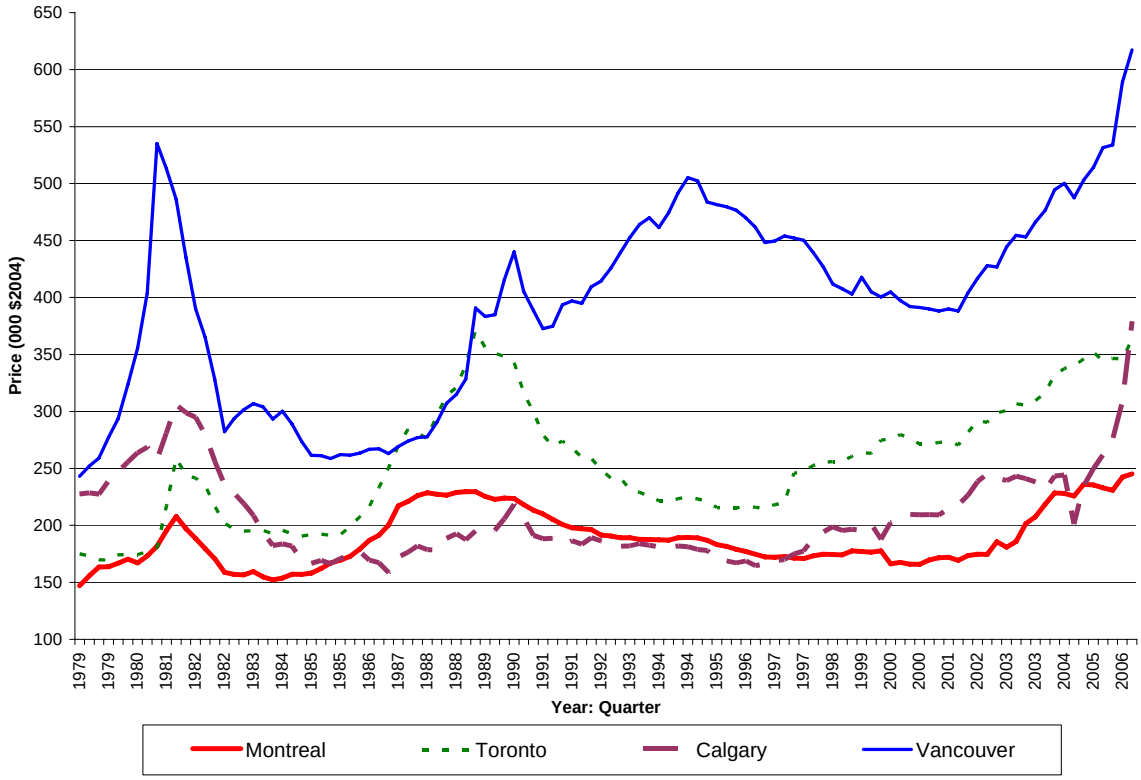
For our analysis we use data from 1979 through 2006 for nine major Canadian metropolitan areas that cover all major regions of the country. For each of Calgary, Edmonton, Halifax, Montreal, Ottawa, Regina, Toronto, Vancouver, and Winnipeg, we use metropolitan area specific data for house prices, rents, and operating costs (property taxes, maintenance, and homeowner's and renter's insurance premiums). The interest rates for the mortgages and the investment returns are the same for all cities. In the Appendix we report on how we construct each series. For the total wealth accumulation analysis we have starting years from 1979 to 1996, so that the minimum holding period is 10 years, yielding 18 observations for each of eight mortgage term, percentage invested, and investment type scenarios per city.

We construct house prices series for each of the nine areas using the Royal LePage *Survey of Canadian House Prices*. The publication reports on the quarterly survey of member brokers by the national realtor Royal LePage of prices for different standardized house types in communities across Canada. We use the survey reports for a two storey mid-market and bungalow single family units and take a weighted average within each metropolitan area of the prices reported for different neighbourhoods or jurisdictions.[11]

Figure 1 shows real house prices, adjusted for inflation, for Calgary, Montreal, Toronto, and Vancouver. The series highlights an important observation, that when a household buys a house can have a dramatic effect on their wealth. Households who bought houses in Vancouver or Calgary at the height of the boom in 1981-82 did not see real house prices return to that level until 2005, so that their growth in equity came from paying down their mortgage, not the growth in house prices. Households who purchased housing in Montreal or Toronto in 1989 would experience falling real house prices through 1997. House prices have shown enough volatility that real returns over any given time period are far from given. Thus our analysis allows for eighteen different holding periods per city-scenario to average out this year to year variation. It turns out that for every city, there is a t least one period over which renters did better than owners and the reverse also holds true.

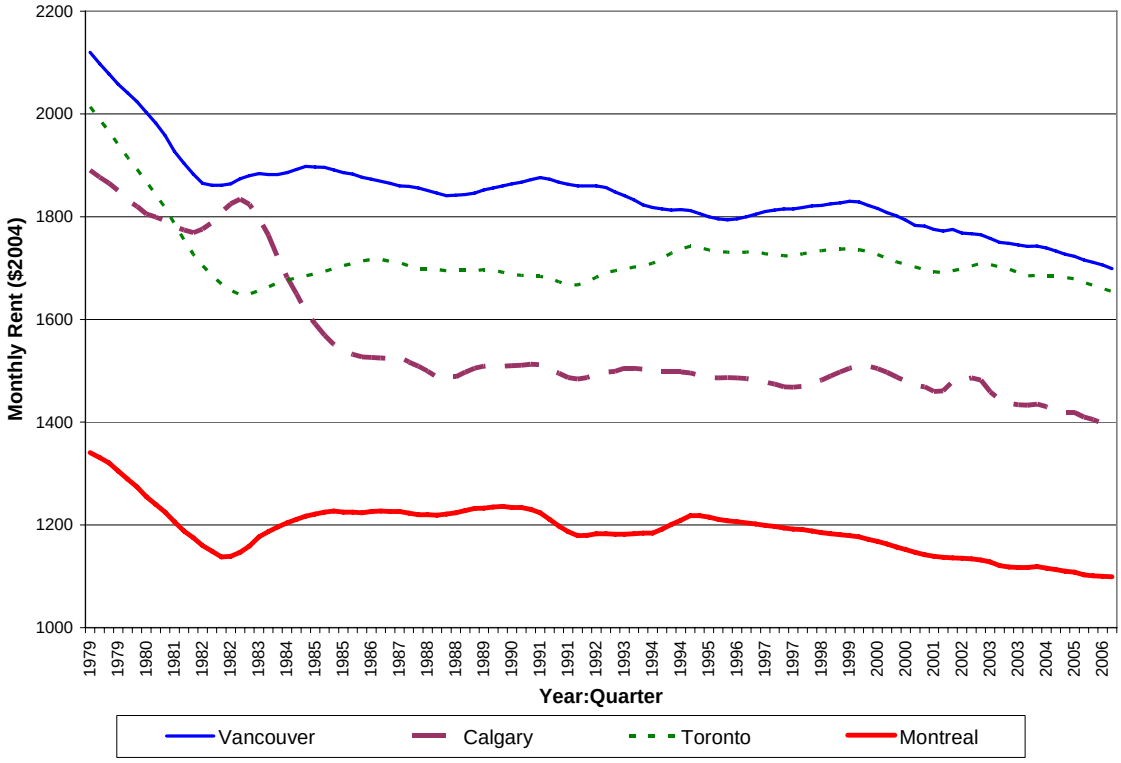
[11] Housing economists prefer to measure house price with price indexes that control differences in house quality over time. The Royal LePage base data compares favourably to such a series, a repeat sales house price series, for Vancouver and is much better than the Statistics Canada new house price series. Over 1979-1997 in Vancouver, the Royal LePage series and Statistics Canada New House Price Index series have correlations with a real repeat sales index of 0.95 and 0.16 respectively.

Figure 1: Real House Prices



The LePage series also allow us to estimate a rent amount for the same house type, which we then index over time using the Statistics Canada CPI rental accommodation sub-index. In Figure 2 we present the real rent series for the same four Canadian cities profiled in Figure 1. The striking lesson from Figure 2 is the trend across all four Canadian cities for falling constant dollar (inflation adjusted) rents. This decline is steepest during the late 1970's and early 1980's when inflation was highest, but have continued, at a much reduced rate of decline, through the late 1990's and early years of the 21st century when inflation has been dramatically lower

Figure 2: Real Estimated House Rents



In Table 2 we present descriptive statistics by metropolitan area. These highlight the large variation across the Canadian metropolitan areas we use in size, house price level, and net rent to price ratios (net cap rate). Among the notable data, Vancouver had the highest house price appreciation over the period, along with the highest price level. Even though Montreal is the second largest metropolitan area in Canada, its house prices are much lower than all other comparable cities. Calgary has had both high annual price appreciation and a high average net cap rate, where the latter means that rents are high compared to prices. Both would make ownership relatively more attractive. Regina had the lowest price growth, but the average ratio of rents to prices is the highest in the cities we study. In contrast, Edmonton has had both low price growth and a low rent to price ratio.

The data on mortgages and the investment returns for renters vary over time but are the same for all cities. The average annual nominal return for the TSE investment is 13.17 percent compared with 6.86 percent for the GIC. For mortgages, the average annual rate over 1979-2006 is 10.17 percent for a 5 year term mortgage. The wealth analysis in this paper is not done in a portfolio context so we do not account for differences in the variance of the returns. However, it is instructive to note that the coefficient of variance for the TSE returns is 1.17, for the GIC 0.61, while for housing it ranges from a low of 0.50 in Winnipeg to a high of 1.46 in Vancouver. Thus, the TSE is on average riskier than housing

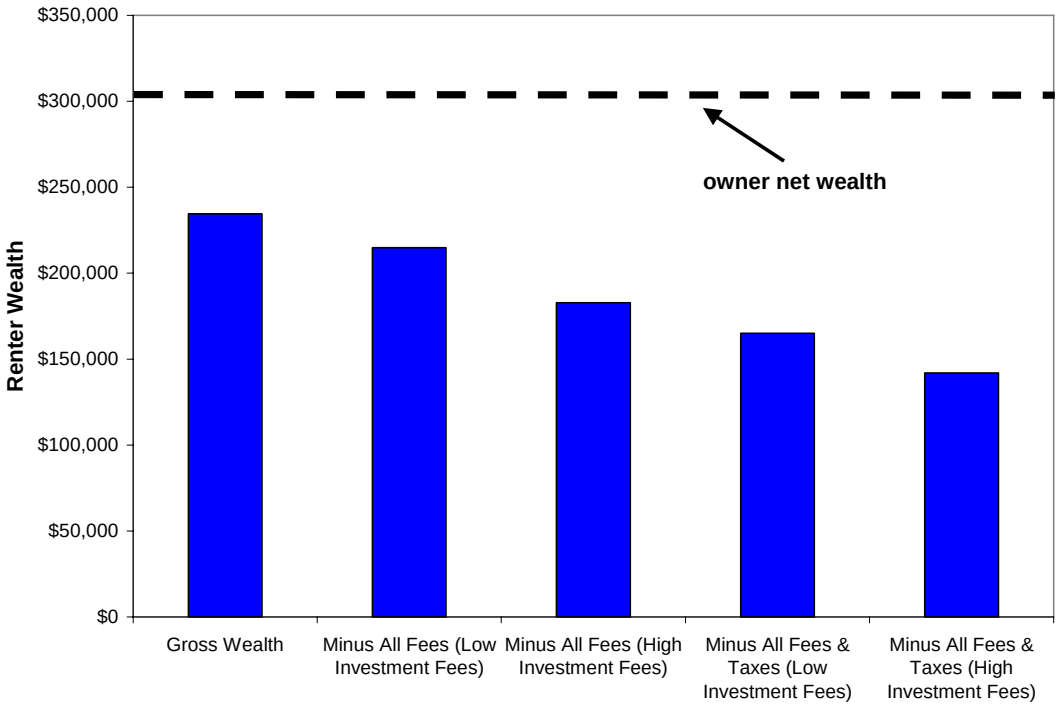
Table 2 – Descriptive Statistics

	2005 Population	2006 House Price	Annual House Price Appreciation	Average Net Cap Rate	Average Net Return
Calgary	1,060,300	$395,520	5.91%	6.01%	11.92%
Edmonton	1,016,000	$325,730	4.25%	4.13%	8.38%
Halifax	380,800	$249,860	4.11%	4.89%	9.00%
Montreal	3,635,700	$228,480	5.25%	4.84%	10.09%
Ottawa	1,148,800	$294,120	5.43%	4.80%	10.23%
Regina	199,000	$181,930	4.02%	6.08%	10.10%
Toronto	5,304,100	$378,390	6.83%	5.31%	12.14%
Vancouver	2,208,300	$629,950	7.36%	3.99%	11.35%
Winnipeg	706,900	$227,170	4.75%	5.49%	10.24%

Results

For our first comparison we look at the aggregate across all nine cities and all scenarios. These include all combinations of investing 50 or 100 percent of the annual difference between owner and renter costs, both types of investment (TSE total return and GICs), and with both the one and five year mortgage terms for owners. We compare the average values of wealth before and after house transactions costs, taxes, and management fees. Figure 3 summarizes the basic result that renters cannot on average accumulate as much as can owners.

Figure 3: Renter Wealth- Average Across All Scenarios



The details of the differences are shown in Table 3. When we take the average across all our scenarios and cities a renter's gross wealth is 72 percent of that of owners. This gap grows dramatically when we include the effect of taxes and management fees. Closing costs and realtor fees reduce owner net wealth, increasing the ratio of renter to owner wealth by 5 percentage points. When we adjust renter wealth for investment management fees, the ratio drops by between 6 and 17 percentage points, depending on whether annual investment management fees are low (0.75%) or high (2.25%). Capital gains and income taxes further reduce these ratios by 13 to 17 percentage points. So that on average the net wealth renters can achieve is approximately half of what owner can obtain.

Table 3: Renter vs. Owner Wealth
Overall Average

	Net Accumulated Wealth	Ratio Renter to Owner Wealth
Owner Wealth		
Gross	$325,940	0.72
After Closing & Sales Costs	$304,260	0.77
Renter Wealth		
Gross	$234,540	
After Management Fees		
Low Fees - 0.75% per year	$214,880	0.71
High Fees - 2.25% per year	$182,830	0.60
After Fees & Taxes		
Low Fees - 0.75% per year	$165,050	0.54
High Fees - 2.25% per year	$142,020	0.47

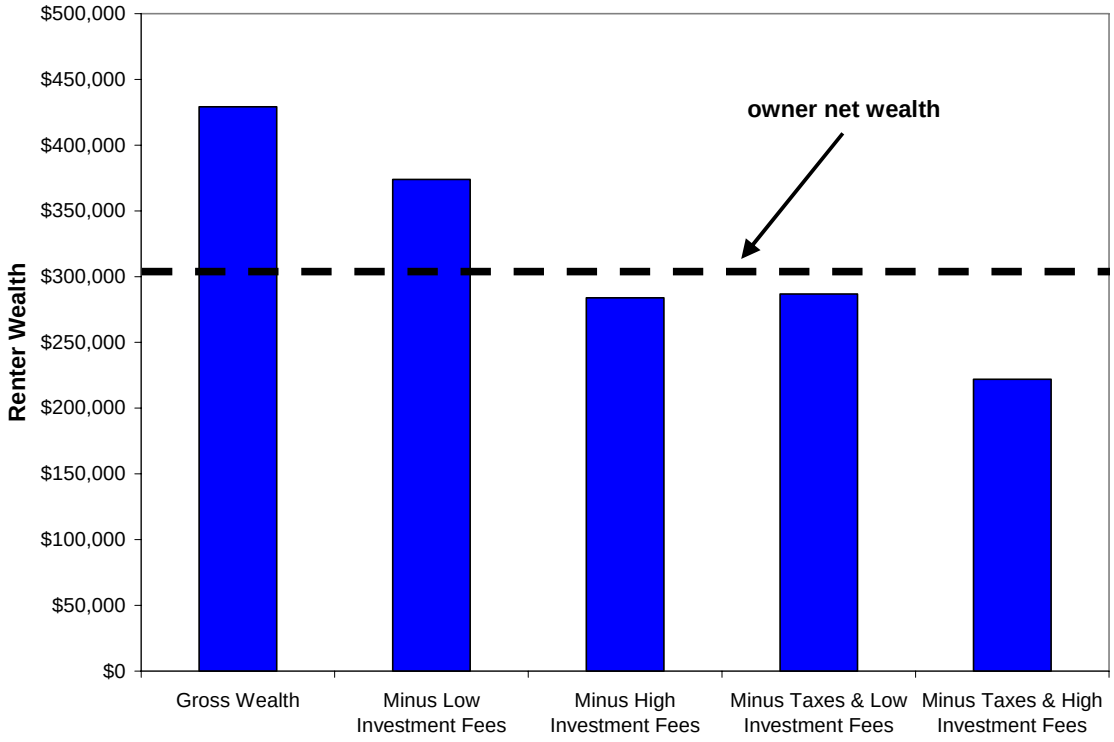
Notes: Average of all scenarios: investing 100 or 50 percent of the difference between annual owner and renter costs, investment receives either the TSE or GIC return, and owners use 1 or 5 year term mortgage. Each of these eight is evaluated for each starting year from 1979-1996. Net wealth is determined at either the end of 25 years or in 2006. This is repeated for Calgary, Edmonton, Halifax, Montreal, Ottawa, Regina, Toronto, Vancouver, and Winnipeg. We weight the average by city population, so 1/3 of the weight is from Toronto.

These are weighted averages across the cities, with the weighting done by population. Thus the results for a representative household in the Toronto metropolitan area have about a one-third weight in determining the aggregate average because the Toronto metropolitan area population has that share of the combined population of 15.6 million among the nine metropolitan areas we study.

Since one of our scenarios is that renters only save 50 percent of the difference between owner and renter annual payments, the results in Table 3 underestimate what renters can achieve if they are disciplined. We repeat the analysis from Table 3, but limit the analysis to the situation where 100 percent of the difference in annual payments is invested.

Figure 4 shows the average wealth renters could accumulate when they invest 100 percent of the difference in annual costs in the TSE, receiving the TSE total return. In addition, we assume that owners take a five year mortgage, which is both more representative of the choices owners make, and as we discuss in the appendix, more favourable for renters. While renter gross wealth can exceed owner net wealth, the effects of investment management fees and taxes are quite pronounced. With the lowest level of fees (a management expense ratio of 0.75 percent) renters investing 100 percent of their annual payment savings can still amass more pre-tax wealth, but the effect of capital gains taxes and taxes on dividend income bring this down significantly. On average they are slightly below owner net wealth. If renters invest in a mutual fund with higher management expenses (2.25 percent), then even pre-tax they cannot exceed owner wealth, and their after-tax wealth is significantly lower.

Figure 4: Renter Wealth
Investing 100% of Difference in Annual Costs in the TSE



Notes: This is for 100 percent savings of the difference in annual costs, yielding the TSE total return, and compared with owners who take a 5 year term mortgage. The values are the weighted average across our cities.

In Table 4 we compare the returns possible through investing in the TSE total return with what renters can achieve using GICs. These represent two very different risk-return combinations from conventional investment assets. As in Figure 4, the comparison remains with owners who take 5 year term mortgages. There are two important results shown in this table. Only if 100 percent of the difference in annual costs is invested in a high risk, high return asset can renters on average exceed the gross wealth of what homeowners are able to achieve. Renters who invest in the TSE total return can achieve 13 percent more gross wealth than homebuyers. In contrast gross wealth for renters investing in GICs is 38 percent lower than that of homeowners. However, fees and then taxes ensure that the net after tax wealth renters can achieve remains on average lower that what homeowners can obtain through ownership. Depending on whether renters use a low or high management fee investment vehicle, on average across our cities and different owner choices of mortgages, the after tax and fee wealth of a representative renter is still 19 or 38 percent below the net wealth that a homebuyer would have accumulated through the growth in the equity in their home.

The results in Tables 3 and 4 are weighted averages across the nine metropolitan areas we study. With differences in rates of house price appreciation and the ratio of rent to house prices these aggregates hide a great deal of variation among the cities. As well, because they are a weighted by metropolitan area population, they reflect the expected result for a household drawn at random from the combined populations. This places an extremely large weight on Toronto's results because one-third of the population among these nine cities is in Toronto. Thus while representative of a household chosen at random from among these nine metropolitan areas, they need not reflect the wealth a representative renter from any one of these cities might be able to accumulate relative to that of an owner in the same city.

Table 4: Renter vs. Owner Wealth
Comparing Investment in TSE vs. GIC
Save 100% of Difference in Annual Costs

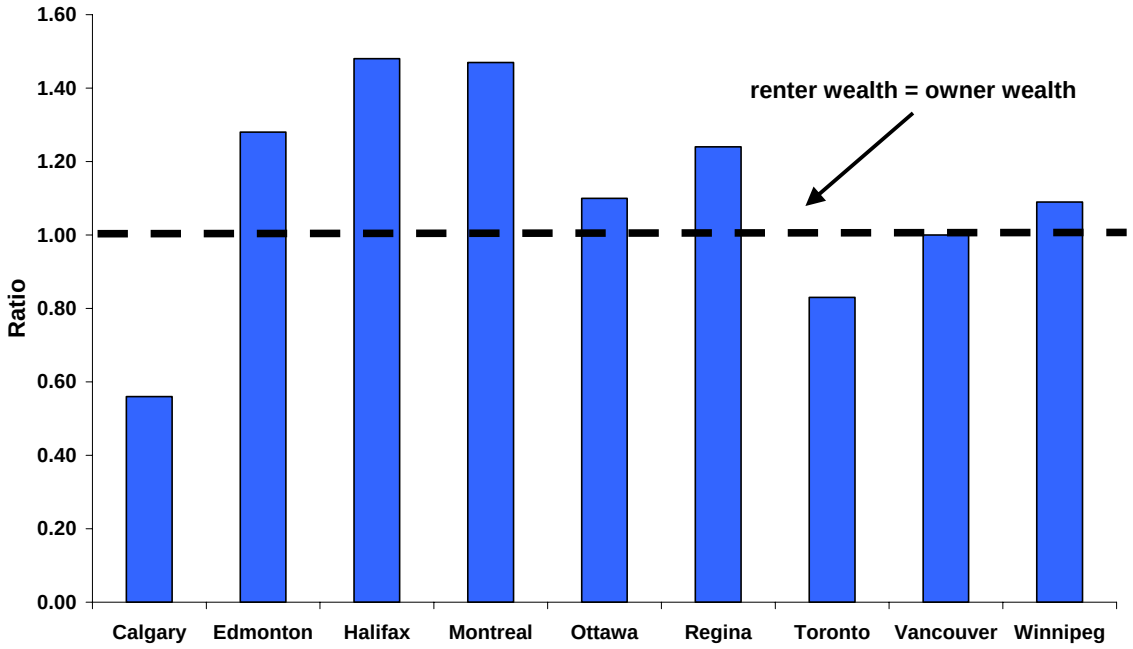
	Invest in TSE	Invest in GIC
Owner Wealth		
Gross	$323,660	$319,520
After Closing & Sales Costs	$301,980	$297,840
Renter Wealth		
Gross	$429,080	$230,000
After Management Fees		
Low Fees - 0.75% per year	$373,840	$230,000
High Fees - 2.25% per year	$283,760	$230,000
After Fees & Taxes		
Low Fees - 0.75% per year	$286,790	$176,870
High Fees - 2.25% per year	$222,060	$176,870
Ratio Renter to Owner Wealth		
Gross	1.33	0.72
After Closing & Sales Costs	1.42	0.77
After Management Fees		
Low Fees - 0.75% per year	1.24	0.77
High Fees - 2.25% per year	0.94	0.77
After Fees & Taxes		
Low Fees - 0.75% per year	0.95	0.59
High Fees - 2.25% per year	0.74	0.59

Notes: Average of all scenarios where 100% of the difference between annual owner and renter costs is invested and receives either the TSE or GIC return. For each of these choices we take the average of scenarios where owners use 1 or 5 year term mortgage. These are evaluated for each starting year from 1979-1996. Net wealth is determined at either the end of 25 years or in 2006. This is repeated for Calgary, Edmonton, Halifax, Montreal, Ottawa, Regina, Toronto, Vancouver, and Winnipeg. We weight the average by city population, so 1/3 of the weight is from Toronto.

In Figure 5 we compare the ratio of renter to owner wealth for each of our nine cities. We do so for the most favourable scenario for renter returns, where they invest with low fees and receive the TSE total return on their investments and owners use a 5 year term mortgage. The wealth ratios are for when 100 percent of the difference between owner and renter annual costs is saved, maximizing renter wealth. In this specific case, renters can exceed owner wealth in seven of the nine cities we study. The relative gain can be quite substantial: disciplined, investment savvy renters in Edmonton, Halifax, Montreal,

and Regina can accumulate over 20 percent more wealth than can homebuyers after taxes and fees. For Ottawa, Vancouver, and Winnipeg, the ratio is lower, but renter wealth still exceeds that of owners. Only in Calgary and Toronto would it not on average have been possible to match owner wealth, net of taxes, closing costs and realtors fees, and investment management fees. The Vancouver result is somewhat surprising given the high rate of house price appreciation in that city over most of our study period. However, the low ratio of rents to house prices in Vancouver means that renters have the potential to invest substantial amounts every year if they invest the difference between renter and owner costs.

Figure 5: Ratio of Renter to Owner Wealth by City Investing 100% of Difference in Annual Costs in the TSE



Notes: This is for 100 percent savings of the difference in annual costs, yielding the TSE total return, and compared with owners who take a 5 year term mortgage. As well, we assume renters pay the lower (0.75%) investment management fees.

In Table 5 we show the ratios of renter to owner wealth for saving both 100 and 50 percent of the difference in annual costs and find the savings rate where owner and renter wealth are equal. As well, for those cities where renters can accumulate more wealth than owners, we identify the percentage of the difference between annual costs that renters must invest in order to achieve the same wealth as owners. To achieve these results, renters must be disciplined. In the cities with the greatest possibility of wealth accumulation, they must invest a minimum of 60 percent of the difference in annual costs. Overall for the seven cities where it is possible for renters to match owner wealth

they must save 80 percent of the difference in annual costs. This depends on owners taking the 5 year term mortgage. If owners use one year term mortgages, so they are essentially adjustable rate (floating) mortgages, then matching owner wealth is only possible for Edmonton, Halifax, and Montreal and they must save and then invest over 90 percent of the difference in annual costs.

Table 5: Owner vs. Renter Wealth by City
Comparing Savings Amounts
Low Fees, Invest in TSE, 5 Year Mortgage

	100% of Savings Invested	50% of Savings Invested	Breakeven Savings Rate
Calgary	0.56	0.35	
Edmonton	1.28	0.74	74.1
Halifax	1.48	0.88	60.0
Montreal	1.47	0.88	60.2
Ottawa	1.10	0.68	88.1
Regina	1.24	0.76	75.0
Toronto	0.83	0.52	
Vancouver	1.00	0.60	100.0
Winnipeg	1.09	0.66	89.5

Notes: Results are the ratio of renter to owner wealth, net of property closing and sales costs, management fees and taxes on investments in the TSE. Owners use a 5 year term fixed rate mortgage. These are evaluated for each starting year from 1979-1996. Net wealth is determined at either the end of 25 years or in 2006. This is repeated for Calgary, Edmonton, Halifax, Montreal, Ottawa, Regina, Toronto, Vancouver, and Winnipeg. Investment fees are the low fee scenario, 0.75 percent a year (an index fund).

Our methodology actually underestimates the benefits to ownership. In the analysis we present, we compare renter and owner wealth either once the mortgage is paid off or before. However, the use of leverage via a mortgage affects the wealth accumulation path of owners. First, in the initial years only a small part of the principal is paid off, with increasing amounts amortized over the term. Second, once the mortgage is paid off, the ability of owners to accumulate wealth relative to renters increases tremendously. Without mortgage payments, renter costs significantly exceed owner costs, which are limited to taxes, insurance and maintenance. This allows owners to dramatically increase their rate of wealth accumulation relative to that of renters by investing the difference between renter and the now lower owner payments. If we assume that similar valued real estate is held for 40 years, which would allow owners 15 years of accelerated wealth accumulation when they had paid off their mortgage, this would increase owner wealth by approximately 22 percent across all scenarios.

At the same time, the nature of our comparison downplays some of the benefits of renting. First, renters are able to invest in much more liquid assets. For a homeowner, accessing housing wealth requires the time consuming process of selling their home, taking out a home mortgages, or receive a reverse mortgage. The first takes months and is extremely disruptive, that latter involve a build-up of debt and for the former the need to repay the debt. Second, renters are able to create a much more balanced portfolio. In our example owners have 100 percent of their assets in housing equity. For comparison purposes on total wealth we have renters also invest 100 percent of their wealth in a single asset. However, renters could choose to take a lower return but have a more diversified portfolio. Looking across these cities, the median risk portfolio includes no more than 52 percent of an allocation to housing, with the rest in equities, bonds or GICs. Measuring the tradeoff between wealth accumulation, preferences for liquidity, and risk exposure requires more detailed information on the preferences of individuals than is possible for this study. However, in evaluating the trade-off between renting and owning, it is important to remember these financial benefits of renting.

Conclusions

This paper examines whether by not owning, renters miss an important opportunity for accumulating wealth. The results are quite striking, for renters to accumulate the same amount of wealth as owners, they must be extremely diligent savers, invest in a high yield instrument, do so with minimal fees, and have the good fortune to live in one of the cities where the right combination of low rents and/or low house price growth allows them to invest more in a relatively higher return asset. Thus, even if they careful savers, investing with high yields and low fees, renters in Toronto and Calgary cannot on average accumulate the same wealth as can homebuyers in these cities who merely have to make their mortgage payments.

If we compare the decisions people actually make with renters would have to do to match owner wealth, it seems to be a daunting challenge. On average for the seven cities (Edmonton, Halifax, Montreal, Ottawa, Regina, Vancouver, and Winnipeg) where matching owner wealth is possible, renters have to save between 60 and 100 percent of the difference between annual owner and renter costs. The average of 80 percent is analogous to a savings rate of nine percent. In contrast, the most recent Canadian savings rate was negative 0.4 percent. It is quite believable that renters would choose periodically to not save in order to spend money on consumer goods or vacations. As well, renters must be able to invest in high yield assets with very low fees. Yet, most mutual funds charge high fees and return less than the TSE's total return. The challenge for renters to accumulate the same wealth as owners, while surmountable, does not seem to be realistic for the vast majority of renters who even have the income and wealth to buy.

Renters are also put at a disadvantage because of the large tax advantages of owning a principal residence. There are quite a few scenarios that we examine here where before taxes renters are able to match owner wealth. However, the capital gains exemption granted to a principal residence provides owners deceases the ratio of renter to owner

wealth by 13 to 29 percent points.[12] As we note in the introduction, there are a number of very good reasons, such as neighbourhood investment and stability, for governments to subsidize homeownership. However, the effect of the preferential tax treatment of homeownership of the relative wealth of renters and owners is striking.

Achieving the wealth for owners is much simpler; they just have to make their mortgage payments. Given how low default rates are for residential mortgages, it is reasonable to believe that in making mortgage payments owners are essentially "forced" to save. Ultimately this would seem to be the true benefit of ownership, that in making mortgage payments owners are forced to save in ways that renters can only achieve through both high levels of personal discipline and wise investment decisions.

[12] This analysis does not examine how house prices might change if the tax treatment of owning was changed.

References

Belsky, Eric and Joel Prakken, "Housing Wealth Effects: Housing's Impact on Wealth Accumulation, Wealth Distribution and Consumer Spending," Harvard University Joint Center for Housing Studies Working Paper W04-13, December 2004.

Berkovec, James and Don Fullerton, A General Equilibrium Model of Housing, Taxes, and Portfolio Choice, *Journal of Political Economy*, 1992, 100 (2), 390-429,

Coulson, N. Edward, Hwang, Seok-Joon, and Susumu Imai, The Benefits of Owner-Occupation in Neighborhoods, *Journal of Housing Research*, 2003, 14 (1), 21-48.

DiPasquale, Denise and Edward L. Glaeser, Incentives and Social Capital: Are Homeowners Better Citizens? *Journal of Urban Economics*, 1999, 45 (2), 354-84.

Flavin, Marjorie and Takashi Yamashita, Owner Occupied Housing and the Consumption of Household Portfolio, *American Economic Review* 92 (1), 2002, 345-362.

Green, Richard K., Homeowning, Social Outcome, Tenure Choice, and U.S. Housing Policy, *Cityscape: A Journal of Policy Development and Research*, 2001, 5 (2), 21-29.

Hochguertel, Stefan; and Arthur van Soest, The Relation between Financial and Housing Wealth: Evidence from Dutch Households, *Journal of Urban Economics*, 2001, 49 (2), 374-403.

Meyer, Richard and Kenneth Wieand, Risk and Return to Housing, Tenure Choice and the Value of Housing in an Asset Pricing Context, *Real Estate Economics*, 1996, 24 (1), 113-31.

Royal Le Page, "Survey of Canadian House Prices," quarterly, http://www.royallepage.ca/CMSTemplates/GlobalNavTemplate.aspx?id=361.

Appendix Data Description and Tables

House Prices – We base our estimates on Royal LePage's quarterly "Survey of Canadian House Prices."[13] We use the estimated values for the representative bungalow and standard two storey house. For each city our estimated quarterly value is the average of the value for these two, and for price we use a weighted average (weights by number of households) across the neighbourhoods and municipalities surveyed in each city. To index from the base year we use a weighted average of the quarterly growth rates to compensate for the high frequency with which survey values may be missing for an individual neighbourhood or jurisdiction. We use the 2nd quarter values for each year as the representative value for the year.

Rents – We base our estimates on the estimated rental values for the house types and cities in Royal LePage's quarterly "Survey of Canadian House Prices" using the same approach as for prices. To index over time we use the Statistics Canada CPI Rental Accommodation series.

Property tax - Property tax data taken from Royal LePage's "Survey of Canadian House Prices", published quarterly. Any missing tax data is extrapolated using the CPI. Property tax.

Owner's insurance – Initial levels are calculated by a phone survey of insurance rates for a typical house across the Canadian cities. We index the base year data using the city specific Statistics Canada CPI for Homeowners' Insurance Premiums.

Renter's insurance – Initial levels are calculated by a phone survey of insurance rates for a typical house across the Canadian cities. We index the base year data using the city specific Statistics Canada CPI for Tenant's Insurance Premiums.

Maintenance costs – Discussions with property managers for 2005 suggested that treating maintenance costs as 10% of rental revenues was a reasonable assumption. A phone survey of property managers across the Canadian cities produced estimates for lawn care and snow removal for a 2004 base year. These base values are then indexed using the city specific Statistics Canada All Items CPI.

Mortgage rates - Rates for five year mortgages as listed by the Bank of Canada on the last Wednesday of June of each year.[14] We use the average rates for mortgages written by the chartered Canadian banks. The rates for one year mortgages are calculated as this five year rate, minus the spread between five and one year "listed" rates for conventional mortgages. The listed rate for conventional five year mortgages averages 18 basis points higher than the average rate.

[13] See http://www.royallepage.ca/CMSTemplates/GlobalNavTemplate.aspx?id=361
[14] See http://www.bankofcanada.ca/en/rates.htm

GIC interest rate – Average rate among chartered Canadian banks for a one year Guaranteed Investment Certificate as posted by the Bank of Canada on the last Wednesday of June of each year.

TSE return – The sum of the of the average dividend yield for stocks listed on the Toronto Stock Exchange (TSE now TSX) and the percentage change in the TSE index.

Savings rate – Return on renters' security deposit. Non-chequable savings deposits rate of interest for chartered Canadian banks as posted by the Bank of Canada on the last Wednesday of June of each year.

Table A-1 shows the effect of fees on the ratio of renter to owner wealth. These calculations are made for the average of the scenarios where owners use 1 and 5 year term mortgages.

Table A-1: Ratio of Renter to Owner Wealth by City
Effect of Investment Management Fees
Invest in TSE. Invest 100% of Savings

	Low Fees	High Fees
Calgary	0.48	0.36
Edmonton	1.15	0.88
Halifax	1.28	0.99
Montreal	1.26	0.99
Ottawa	0.94	0.73
Regina	1.04	0.80
Toronto	0.71	0.56
Vancouver	0.87	0.69
Winnipeg	0.91	0.70

Notes: Results are the ratio of renter to owner wealth, net of property closing and sales costs, management fees and taxes on investments in the TSE. Owners use a 1 or 5 year term mortgage. These are evaluated for each starting year from 1979-1996. Net wealth is determined at either the end of 25 years or in 2006. This is repeated for Calgary, Edmonton, Halifax, Montreal, Ottawa, Regina, Toronto, Vancouver, and Winnipeg. Low fees are 0.75 percent a year (an index fund), high fees are 2.25 percent a year (an actively managed mutual fund).

In Table A-2 we show the effect of mortgage choice on renter and owner wealth. We use the most favourable scenario for renters, one where they invest 100 percent of the difference in annual costs in equities, receiving the TSE total return on their investment. Renters accumulate the most wealth relative to owners when owners take a five year term fixed rate mortgage. With higher annual payments on average for the five year term mortgages, renters are saving (investing) more money on an annual basis and owners are

amortizing less of the loan balance in the early years of a mortgage. Still, on average across all cities, with the results weighted by city population, renters cannot match after tax and fees the wealth owners can accumulate. Even paying very low fees investment management fees, renter wealth is only 95 percent of owner wealth. With higher fees this falls to 74 percent. When owners take the lower cost one year term mortgages, the best that renters can do is 67 percent of owner wealth.

Table A-2: Renter vs. Owner Wealth Comparing Owners Choice of Mortgage Save 100% of Difference in Annual Costs Investing in TSE

	5 Year Mortgage	1 Year Mortgage
Owner Wealth		
Gross	$323,660	$345,420
After Closing & Sales Costs	$301,980	$323,740
Renter Wealth		
Gross	$429,080	$326,283
After Management Fees		
Low Fees - 0.75% per year	$373,840	$284,020
High Fees - 2.25% per year	$283,760	$215,160
After Fees & Taxes		
Low Fees - 0.75% per year	$286,790	$218,190
High Fees - 2.25% per year	$222,060	$168,710
Ratio Renter to Owner Wealth		
Gross	1.33	0.94
After Closing & Sales Costs	1.42	1.01
After Management Fees		
Low Fees - 0.75% per year	1.24	0.88
High Fees - 2.25% per year	0.94	0.66
After Fees & Taxes		
Low Fees - 0.75% per year	0.95	0.67
High Fees - 2.25% per year	0.74	0.52

Notes: Average of all scenarios where 100% of the difference between annual owner and renter costs is invested and receives the TSE total return. For each of these choices we compare where owners use 1 or 5 year term mortgage. These are evaluated for each starting year from 1979-1996. Net wealth is determined at either the end of 25 years or in 2006. This is repeated for Calgary, Edmonton, Halifax, Montreal, Ottawa, Regina, Toronto, Vancouver, and Winnipeg. We weight the average by city population, so 1/3 of the weight is from Toronto.