Does Owning a Home Build More Wealth?

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Executive Summary

Despite the common belief that homeownership accelerates wealth accumulation relative to renting and investing in other instruments, few studies have explored whether this is indeed true. Using data from the Survey of Financial Security (SFS), we examine the relationship between housing tenure and family wealth and test whether we can find evidence these beliefs are true.

We find that homeowners tend to have larger families with higher income and more education than renters. Furthermore, homeowners tend to be seven times wealthier. Their homes represent, on average, about half of their net wealth and their mortgage debts represent more than 80% of their debts. From 1999 to 2019, renters owned about 6 to 10% of all the net wealth in Canada, and all this wealth belonged to the top half of renters. This naturally leads to the following question: is the wealth gap between renters and owners *the result of* homeownership? Our research suggests that the answer to this question is complex and there are no hard-and-fast rules.

We attempt to isolate the direct impact of owning a home on wealth build-up using statistical methods. We do not find clear evidence that homeownership accelerates wealth accumulation. While homeowners had much higher levels of net wealth compared to renters, this difference may not be *because* of homeownership. Rather, it might be explained by differences in incomes, inheritance, and other factors.

Using model simulations and actual data on house and stock prices, we found that the impact of homeownership on net wealth varied over different time horizons when compared to renting and investing in the S&P 500 index. Over the short term (1 year), homeownership led to less net wealth than renting and investing in the S&P500 because of large transaction costs. Over medium horizons (12 years), owning a home led to more net wealth. This is because leverage during that period is high and the increases in home value are large enough to beat the high buying and selling costs. Lastly, over a longer term (33 years), it led to about the same net wealth because as homeowners pay off their mortgage debt, they de-leverage and their returns decrease.

Our research highlights the complexities of wealth accumulation through homeownership and other assets and provides some evidence that challenge the idea that homeownership is a guaranteed and single path to wealth building.

Our findings also have policy implications; promoting homeownership may not actually help reduce wealth inequality between renters and homeowners. Instead, more financial education may be more important for helping people make the best financial decisions for their circumstances.

Résumé

Il est courant de penser que la possession d'une habitation accélère l'accumulation de patrimoine par rapport à la location et à l'investissement dans d'autres instruments. Cependant, peu d'études ont exploré la véracité de cette hypothèse. À l'aide des données de l'Enquête sur la sécurité financière (ESF), nous examinons le lien entre le mode d'occupation et le patrimoine familial et vérifions s'il existe des preuves que cette croyance est vraie.

Nous constatons que les propriétaires-occupants ont tendance à avoir une plus grande famille ainsi qu'un revenu et un niveau de scolarité plus élevés que les locataires. En outre, ils sont généralement sept fois plus riches. En moyenne, leur habitation représente environ la moitié de leur richesse nette, et leur prêt hypothécaire, plus de 80 % de leur dette. De 1999 à 2019, les locataires détenaient environ 6 à 10 % de la richesse nette au Canada, et toute cette richesse appartenait à la moitié la plus riche des locataires. Cette situation mène naturellement à la question suivante : l'écart de richesse entre les locataires et les propriétaires e*st-il attribuable* au fait de posséder une habitation? Nos recherches indiquent que la réponse à cette question est complexe et qu'il n'y a pas de règles strictes.

Nous tentons d'isoler l'incidence directe de la propriété sur l'accumulation de patrimoine au moyen de méthodes statistiques. Nous ne trouvons aucune preuve claire que le fait de posséder une habitation accélère l'accumulation de patrimoine. Les propriétaires-occupants ont effectivement des niveaux de richesse nette beaucoup plus élevés que les locataires. Toutefois, cet écart n'est peut-être pas *attribuable* à la propriété. Il pourrait plutôt s'expliquer par des différences dans les revenus, l'héritage et d'autres facteurs.

Au moyen de simulations de modèles et de données réelles sur les prix des habitations et des actions, nous avons constaté que l'incidence de la possession d'une propriété sur le patrimoine net variait selon différents horizons temporels par rapport à la location et à l'investissement dans les entreprises formant l'indice S&P 500. À court terme (un an), la possession d'une habitation a entraîné une diminution de la richesse nette par rapport à la location et à l'investissement dans les entreprises formant l'indice S&P 500 en raison des coûts de transaction élevés. À moyen terme (12 ans), la possession d'une habitation a permis d'accroître la richesse nette. L'effet de levier est élevé pendant cette période et les hausses de la valeur des habitations sont suffisamment importantes pour dépasser les coûts d'achat et de vente élevés. Enfin, à long terme (33 ans), la richesse nette est à peu près la même, car à mesure que les propriétaires-occupants remboursent leur prêt hypothécaire, ils perdent leur effet de levier et leur rendement diminue.

Notre recherche met en évidence les complexités de l'accumulation de patrimoine grâce à la possession d'une propriété résidentielle et à d'autres actifs. Elle fournit aussi des preuves qui remettent en question l'idée qu'être propriétaire-occupant est une voie garantie et unique vers l'enrichissement.

Nos constatations ont également des répercussions sur les politiques. La promotion de l'accession à la propriété pourrait ne pas vraiment contribuer à réduire l'inégalité de la richesse entre les locataires et les propriétaires-occupants. Il pourrait plutôt être plus important

d’accroître l’éducation financière pour aider les gens à prendre les meilleures décisions financières possibles en fonction de leur situation.

1. Introduction

Rising cost of living and housing unaffordability in Canada are shutting many families out of homeownership (Dahms and Ducharme, 2023; Statistics Canada, 2022; Statistics Canada, 2024). Since homeownership is commonly believed[5] to be a more reliable vehicle for wealth accumulation than renting and investing in other instruments, it seems important to determine whether this is true. Do the data support the common belief that homeownership accelerates the accumulation of wealth? Moreover, what does the financial position of renters in Canada actually look like relative to that of homeowners, and how has it evolved over the years? Our research investigates these questions, aiming to shed light on how housing tenure intersects with families' financial standings.

Our research utilizes data from the 1999 to 2019 (Canadian) Survey of Financial Security (SFS), which records wealth data, tenure data, and other socioeconomic data on individual families, to explore these relationships and partially fill in this knowledge gap. We use descriptive analyses, ordinary least squares (OLS; see **Key term 1** in the **Glossary**) regressions, an instrumental variable (see **Key term 2**) regression approach, and a model simulation strategy to better understand the evolution of the net wealth of renters and homeowners, as well as to estimate how tenure affects a family's wealth accumulation over time. Analysis of the 2023 SFS could shed light on the impact the COVID-19 pandemic had on house price appreciation, the cost of borrowing, rental market conditions and other factors related to the wealth of owners and renters. At time of writing, the 2023 wave was not yet available.

The results of our descriptive analyses show that, in our data, from 1999 to 2019, renters' share of total wealth was much smaller than that of owners, but stable over time. Renters owned 6%–10% of total wealth even though they represented about one third of families in our data. We found that within the renter population, renters occupying the bottom 50% of the wealth distribution held 0% of total renters' wealth, implying that the top 50% of renters within the renter population held all of renters' total share of wealth. Estimating the Gini index (see **Key term 3**) and Lorenz curve (see **Key term 4**), we observe that inequality was higher within the renter population, especially among renters who did not own any real estate. The opposite was true in our data for owners, especially for owners without a mortgage. While correlational only, these findings support the notion that real estate might have a positive impact on family wealth and a narrowing effect on inequality. Overall, we estimate that renters tended to have one seventh the net wealth of homeowners, earned half the after-tax income, and had smaller families and fewer years of formal education.

To better understand the impact of tenure on family net wealth, we first apply OLS to our data and then develop an instrumental variable strategy to control for possible reverse causality (see **Key term 5**). We develop two IVs. The first IV is marital/common-law status, whereas the second is couple/single status. We apply both IVs to families without children. For our first IV, we estimate a strong correlation between being married and owning a home, suggesting that being married significantly affects the choice of tenure. We estimate an even stronger correlation for our second IV, suggesting that being a couple strongly affects the choice of owning. Our marital/common-law IV, which is our preferred IV, does not allow us to reject

the hypothesis that tenure has no significant impact on wealth. Our couple/single IV suggests that being a renter without other real estate has a significant negative impact (of about $400,000) on per-person wealth compared to being a homeowner.

Since our IVs may be invalid and our regressions provide only a snapshot in time, we also develop a theoretical model simulation to delineate a clear cause-and-effect relationship between homeownership and net wealth across time. Our model estimates that, over short time horizons (1 year), homeownership leads to 28% less after-tax net wealth compared to renting and investing in the Standard & Poor's 500 index (S&P 500; see **Key term 6**), which is an easily accessible and reliable investment option. This is due to transaction costs incurred when purchasing and selling a home. In our simulations, we find that the opposite is true over medium horizons. Over 12 years homeownership generates 20% more after-tax net wealth because leverage and house price appreciation outweigh the transaction costs of homes. Over long horizons (33 years), in our model, homeownership generates only 1% more after-tax net wealth relative to renting and investing. This is a result of deleveraging in the process of paying off the mortgage, which reduces the effective rate of return, and thus slows down the pace of net wealth accumulation.

In addition to estimating the average effect of tenure on net wealth, we pursue the question of whether homeownership generates similar returns for all homeowners, or whether there is significant variation. We find that the after-tax rates of return on housing in our data were almost as unequal as the distribution of net wealth across the population. Inequality in the after-tax returns on housing was especially high for the first few years of ownership and stabilized after 15 years with a Gini coefficient around 0.7, even when considering horizons as long as 60 years. These estimates suggest that becoming a homeowner does not guarantee high yields for all homeowners.

Beyond analyzing how tenure impacts wealth, we examine whether differences in wealth may be correlated with demographic factors such as gender, indigeneity, and immigrant status. We estimate that gender, indigeneity, and immigrant status did not have statistically significant correlations with family net wealth. This is likely because we hold fixed a selection of characteristics that propel wealth accumulation, such as income, education, and inheritance, and are correlated with gender, indigeneity, and immigrant status. To partially test this hypothesis, we ran regressions to see if gender, indigeneity, and immigrant status are correlated with after-tax income at the individual level and found that being female or an immigrant are both significantly correlated with less income. Our estimates are consistent with the broader literature on the gender pay and wealth gaps in Canada, as well as the notable income gap between newcomers or Indigenous peoples and the rest of Canada (Denton and Boos, 2007; Bonikowska et al., 2019; Wilson and Macdonald, 2010; Frank et al., 2013).

Our research makes several contributions to the existing literature on housing tenure and family wealth in Canada. Firstly, it addresses a knowledge gap by providing empirical insights into the financial circumstances of renters, a group often understudied in the context of wealth dynamics. Secondly, by employing innovative statistical methods, including new IV strategies aimed at mitigating reverse-causality challenges, this research advances our ability to establish a clearer causal relationship between tenure and wealth. Thirdly, to the best of our knowledge,

our research is the first to simulate the effect of homeownership on wealth accumulation across different time horizons, allowing a deeper understanding of how leverage and horizons interact with each other. Fourthly, our research enriches the discussion on tenure and wealth by considering the intersectionality of sociodemographic factors such as gender, indigeneity, and immigrant status.

2. Related literature

The literature examining the direct effect of homeownership on wealth accumulation is rather scarce, but there are a few studies that examined similar questions to ours. Di et al. (2007) use the Panel Study of Income Dynamics (PSID) to estimate the impact of homeownership on wealth accumulation. They follow households that start out as renters, some of which later become owners. They control in their study for age, net wealth at the start, tenure duration, education, etc. Their study is particularly exciting because they also control for households' savings rates by using their estimated savings rates in the 5 years preceding the first year of their sample. Although they control for many factors, there are still potentially key economic factors they do not control for. For instance, they do not control for households' investment abilities or their networking abilities, both of which could be positively correlated with homeownership and positively affect the accumulation of wealth. Their survey spans 12 years and consists of fewer than 700 households. They estimate that homeownership accelerates accumulation of wealth over the course of 7-12 years, but not over the course of 1-2 years. These findings are consistent with our model simulations; over short horizons, in our simulations, homeownership reduces net wealth, whereas over medium horizons, leverage in homeownership accelerates the accumulation of wealth. In our study, we also show with our model simulations that, as homeowners deleverage over the course of longer horizons, homeownership does not accelerate wealth accumulation.

Di et al. (2007) show that their results hold even after accounting for different household savings rates. This is somewhat consistent with the findings in Fagareng et al. (2023), who estimate that most of the differences in capital accumulation across households stem from capital gains attributed to asset price appreciation, not savings rates out of income. Their Figure 1 shows that, in their data, the savings rate out of income is almost perfectly flat across the wealth distribution, except for at the bottom, where savings rates are substantially lower. Given that renters tend to occupy the bottom of the wealth distribution, this suggests that, in our analysis, which does not control for the savings rate, the impact of homeownership on wealth accumulation likely suffers from an upward bias.

Herbert et al. (2013) is another study examining the impact of homeownership on wealth accumulation focusing on low-income households over the course of a 10-year horizon. Using the (American) Survey of Consumer Finances (SCF) and PSID, they estimate that homeownership improves the average accumulation of net wealth of low-income households, but that it also acts as a lottery; expected net wealth is higher, but the risk is higher.

There are multiple studies that examine the impact of homeownership on the accumulation of wealth using model simulations under a variety of assumptions about leverage used by homeowners and the investment vehicles renters use in the absence of homeowning

(Hendershott and Hu, 1981; Ibbotson and Siegel, 1984; Case and Shiller, 1990; Goetzmann, 1993; Belsky and Duda, 2002). We show the impact of time horizons on the accumulation of net wealth in our simulations, using actual data on house price growth rates from the SFS and real prices of the S&P 500 index. However, we are not aware of other studies that have examined the importance of the time horizon component using model simulations.

To the best of our knowledge, our study is the first to document the vast degree of heterogeneity in owners' returns on their home, controlling for the year of purchase as well as geography. The only other study that we know of that has considered such heterogeneity is Fagareng et al. (2023). Using 20 years of administrative Norwegian tax records, they estimate the degree of heterogeneity in returns on wealth, broken down by asset type, including housing. They find that, in their data, returns on housing are heterogeneous, but to a lesser degree than the returns on other assets. However, they do not control for the year of purchase and geography, as we do. We estimate that, even over horizons longer than 60 years, rates of return on housing do not converge across families, which we think is a new and illuminating finding.

3. Data

To explore the net wealth gap across the Canadian population and its association with housing tenure, we need information on net wealth for both renters and owners. We use Statistics Canada Public Use Microdata Files as well as confidential micro-files of the SFS, which provide a comprehensive picture of the financial state of Canadian renters and owners at the family level.

Information on net wealth was collected in 5 waves of the SFS, each containing more than 10,000 observations (weighted to reflect the population).[6] The surveys include information on the value of major financial and non-financial assets, debts, income, and other data on financial behaviours and attitudes that can be disaggregated by tenure.

The unit of observation is economic families and persons not in an economic family. Economic families are 2 or more persons living in the same dwelling who are related by blood, marriage, common law or adoption. Persons not in an economic family are persons living alone or with others to whom they are unrelated. These individuals are also called unattached individuals.

While the assets and debts were collected for the family because they cannot be assigned to any specific person inside the family, other socioeconomic information was collected for each person in the family. Financial data were collected from the most knowledgeable member of the family on the family's finances, and the response rate was generally above 70%. For more information on the survey, detailed descriptions of the methodology, sampling, imputation and data accuracy, please refer to the SFS webpage.

Table 1 below depicts some stylized facts about renters and owners. First, about a third of families in the data are renters, and two thirds are owners. These numbers are representative of the national picture on tenure and are in accordance with recent Census data. Second, in our data from 1999 to 2019, owners tended to be wealthier than renters. On average, owners in our data had 7 times the net wealth of renters.[7] Similarly, **Table 1** shows that owners in our data had higher after-tax family income. However, we observe in our data that the after-tax income

ratio (owners to renters) decreased over the years. In 1999, owners in our data had 3 times the after-tax income of renters, whereas in 2019, the same ratio decreased to 2. Third, looking at a bundle of demographic attributes, families that owned their home tended to be larger, and their major income earner was older and more educated.

Table 1: Descriptive statistics

			Averages					
Year	**Sample size**	**Tenure**	**Proportion**	**Wealth**	**After-tax income**	**Family size**	**Age**	**Education**
2019	10,422	own	71%	$1,370,749	$102,208	2.6	56	3.1
		rent	29%	$193,623	$48,345	2.0	47	2.8
2016	12,429	own	70%	$1,204,064	$96,001	2.5	55	3.0
		rent	30%	$157,126	$42,368	1.9	47	2.6
2012	12,003	own	73%	$978,370	$85,752	2.5	55	2.8
		rent	27%	$150,465	$37,398	1.9	47	2.4
2005	5,267	own	69%	$925,497	$82,740	2.7	53	2.8
		rent	31%	$83,102	$28,620	1.8	45	2.4
1999	15,933	own	66%	$388,283	$80,870	2.7	51	2.6
		rent	34%	$59,255	$25,429	2.0	44	2.3

Notes: Our sources are the Public Use Microdata Files of the 1999, 2005, 2012, 2016, and 2019 waves of the SFS. All dollar values are nominal. Education is a categorical variable: 1 means having less than a high school diploma, 2 means having a high school diploma, 3 means having a non-university diploma, and 4 means having a university degree.

The SFS defines net wealth as the difference between an economic family's total assets and total debts. In other words, a family's net wealth is the amount of money they would have if they sold all their assets and paid off all their debts.

Total assets in the SFS include: home value at the time of the survey, real estate other than the principal residence, value of all employer pension plans (termination valuation approach), registered retirement income funds, registered retirement savings plans, tax free saving accounts, other retirement funds, bonds, money in bank, mutual funds, income trusts, stocks and shares held in private companies, other investments or financial assets, vehicles, other non-financial assets and the equity value of businesses operated by the economic family. Total debt is the sum of outstanding mortgage debt (on the principal residence and other real estate, in and outside of Canada), lines of credit, credit cards, student loans, vehicle loans and other debts.

Using tenure information, we construct 4 different groups: owners without a mortgage (35.3% of population in our data), owners with a mortgage (35.7%), renters who do not own real estate (25.9%), and renters who do own real estate (3.1%).[8] We focus on these groups when presenting our main results. In some cases, we focus on "typical" owners and "typical" renters, where we define "typical owners" as owners with a mortgage and "typical renters" as renters who do not own real estate.

Table 2 shows the composition of assets and debts of our 4 main groups in the 2019 SFS.[9] While the survey provides detailed information on assets and debts, only 3 components account for almost 70% of their composition in our data. For owners, the principal residence was the largest asset and represented almost half of the assets, on average. As for debts, owners with a mortgage had mortgages that represented more than 80% of their debt. In other words, housing in our data was both the largest asset and the largest debt for Canadian owners who had outstanding mortgage debt. In contrast, for owners without a mortgage, cars loans and lines of credit represented most of their debt (more than 60%). For renters who owned real estate but did not occupy it, housing also represented the largest share of assets (55%) and debt (42%). Conversely, the main assets of renters who did not own real estate were vehicles and other non-financial assets, and cash, and most of their debt was in credit cards, student loans and car loans.

Table 2: Average net wealth composition by tenure (top 3 categories)

	Assets		Debts	
	Type (top 3 categories)	**%**	**Type (top 3 categories)**	**%**
Owners (without mortgage)	Principal residence	46%	Cars	32%
	Pension	17%	Line of credit	29%
	RRSP	7%	Credit card/installment	21%
Owners (with mortgage)	Principal residence	57%	Mortgage on principal residence	82%
	Pension	17%	Cars	6%
	RRSP	6%	Mortgage on others	5%
Renters (do not own real estate)	Non-financial assets	27%	Credit card/installment	36%
	Vehicles	18%	Cars	27%
	Deposit	17%	Student loan	20%
Renters (do own real estate)	Other properties	55%	Mortgage on other properties	42%
	Pension	12%	Cars	22%
	RRSP	7%	Credit card/installment	17%

Notes: Our source is the Public Use Microdata Files of the 2019 wave of the SFS.

3.1 Data limitations

While the SFS is comprehensive and provides rich information on the financial situation of Canadians, it also has a few limitations.

First, data on wealth are self-reported, and this can lead to response and measurement errors, even if data are collected from the most knowledgeable family member. The bias is likely negatively correlated with families' positions across the wealth and income distributions (Kennickell and Woodburn, 2005), i.e., the less net wealth a family had, the more likely they were to understate their true net wealth. House values, meanwhile, which were self-reports of the dollar amount that owners believed they could obtain if they sold their house at the time of the survey, were, on average, higher than actual sale values observed in the data.[10]

Second, the data may also suffer from sampling errors and potential self-selection (due to non-responses). The SFS is sent to a representative population of Canadian society, but 30% of families do not fill out the survey. If non-response is not random, this will contaminate the quality of the SFS. Kennickell and Woodburn (2005) estimate that households that did not respond to the SCF questionnaire (the American equivalent of the SFS) were richer, on average, than those that did respond.

4. Methodologies and results

In this section, we lay out some descriptive statistics that we observe over time in the SFS. We do this to provide insights on the inequality between renters and owners, within the renter population, and within the owner population. We then investigate the direct effect of tenure on net wealth by running ordinary least squares (OLS). Given issues with possible reverse causality, we develop 2 new instrumental variables (IVs) and use them on our microdata. We also estimate the correlations between gender, Indigenous status and immigration status, and net wealth. Finally, our IV regressions could also suffer from biases and are only a snapshot analysis at the time of the survey. Thus, they provide no information on the dynamics of net wealth over the lifecycle of families. To address this, we run theoretical model simulations using actual data.

4.1 Trends over time

Figure 1 provides distributional patterns of renters' share of net wealth in our data (as well as relative to their share in the population) and show how it evolved over time with house price growth rates.[11]

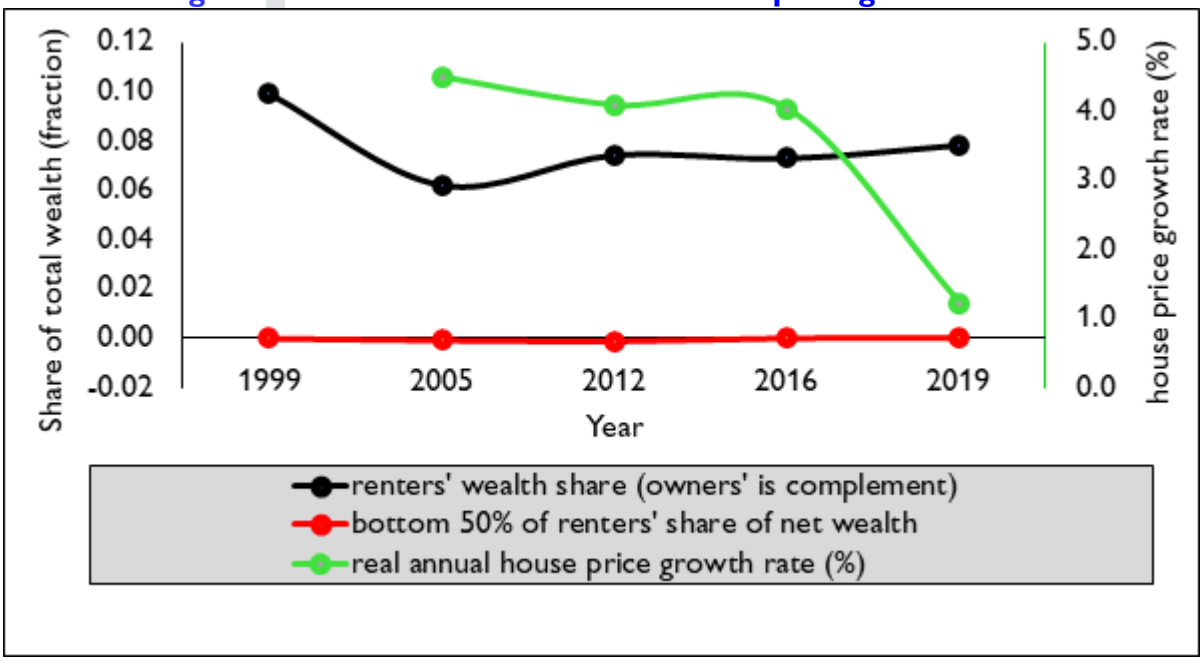
Renters' share of total net wealth in our data was substantially smaller than that of owners. From 1999 to 2019, it was between 6% and 10% (black line). Moreover, on average, renters' share of total net wealth was about one quarter of what it would have been if net wealth were equally distributed. These numbers were similar across all provinces,[12] with renters' share of net wealth in Quebec being the highest (around 14%).

When looking at the body of the wealth distribution within the renter population, the red line in **Figure 1** shows a large degree of inequality in our data. We see that, within the renter population, the bottom 50% of the renters' wealth distribution held 0% of total renters' net wealth, whereas the top 50% owned all of renters' net wealth. Put differently, although renters held between 6% to 10% of total net wealth, this share was held exclusively by the top 50%. Despite this, the top 50% of the renter wealth distribution still owned about half the net wealth they would have had net wealth been perfectly equally distributed among all families.

The green line in **Figure 1** shows national house price growth rate estimates (shown on the right y-axis) during the SFS waves, which we compute directly from the SFS to remain internally consistent throughout our analysis. House price dynamics did not seem to be correlated with renters' share of net wealth. This may seem counterintuitive because a decline in the *growth rate* of house prices should affect owners more than renters, since housing is owners' primary asset (see **Table 2**). What could explain this? We can only speculate, since many factors may be at play. One factor that readily comes to mind is market connectedness. It

is well elucidated in the literature that housing leads the business cycle, especially at the national level. Nearly every recession (or strong period of growth) since the 1929 Great Depression has been preceded by a rise (or drop, in the case of strong growth periods) in real estate investment (Green, 1997; Leamer, 2007). This means that a shock to house prices may have affected owners as well as renters through incomes and investment opportunities, thus keeping the shares similar.

Figure 1: Share of net wealth and house price growth rate



Notes: Our sources are the Public Use Microdata Files of the 1999, 2005, 2012, 2016, and 2019 waves of the SFS. When we adjust renters' share of net wealth for the proportion of the population they represent, we find that in 1999 their share of net wealth was 3.42 times less than it would be if wealth were equally distributed across all families. In 2005 it was 4.99 times lower, in 2012 it was 3.63 times lower, in 2016 it was 4.11 times lower, and in 2019 it was 3.7 times lower. On average, it was 4 times lower.

4.2 Inequality in wealth

We measure inequality across all families and across each tenure group with the Gini index and Lorenz curve to illustrate the magnitude of this phenomenon. The Gini index represents inequality with a single number ranging from 0 to 1 (unless negative values are also possible). Higher values indicate more inequality and lower values indicate more equal distributions.

We show our Gini index estimates in **Table 3** and **Figure 2**. There are 2 pieces of information that stand out. First, wealth was unequally distributed, but less so than income. The Gini index in the full sample was around 0.66. Second, when we recalculated the index for subpopulations based on tenure, the measure of inequality was still high and ranged from 0.50 to 0.84. Inequality in our data was higher within the renter population, particularly within the population of renters who did not own real estate (0.84). For comparison, market income in

Canada was more equally distributed, with Gini index of 0.432, and inequality in after-tax income was even lower, with a Gini index of 0.288.[13]

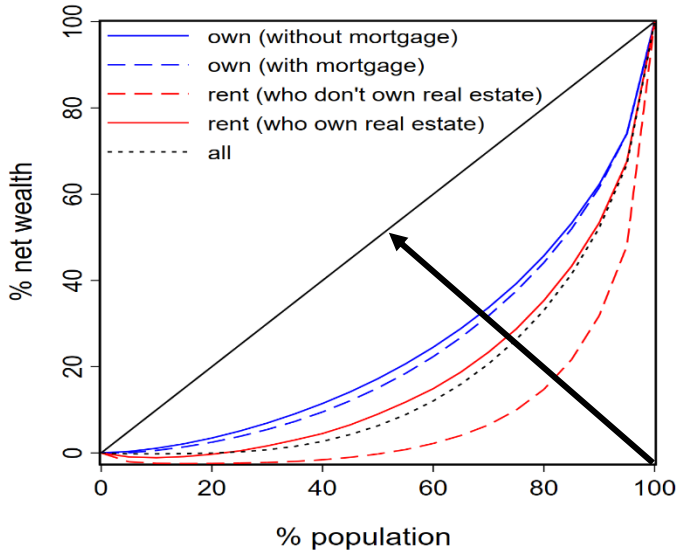
This begs the question: if everyone owned real estate, would wealth be more equally distributed? One explanation can be the following. Because owners are all heavily invested in housing, all owners' wealth tends to move in the same direction at the same time, thus mitigating net wealth disparities (Kuhn et al., 2020). Renters, on the other hand, may be invested in different assets that move in opposite directions, or may not have any investments at all, thus increasing inequality among that group.

Table 3: Inequality in wealth: Gini index

	Gini index
All families	**0.66**
Owners (without mortgage)	0.50
Owners (with mortgage)	0.52
Renters (who own real estate)	0.63
Renters (who don't own real estate)	0.84

Notes: Our source is the Public Use Microdata Files of the 2019 wave of the SFS. Other survey waves yield similar numbers.

Figure 2: Inequality in wealth: Lorenz curve



Notes: Our source is the Public Use Microdata Files of the 2019 wave of the SFS.

4.3 Limitations in interpreting the Gini index

The Gini index compares an observed distribution against the 45-degree diagonal, representing perfect equality. The closer the empirical distribution is to the 45-degree line, the more equal is the empirical distribution. Although the 45-degree line represents a utopia, the Gini index does not capture any of the costs associated with actually reaching this utopia, namely, a substantial reduction of the economic pie. Thus, it is not obvious if minimizing the value of the Gini index would lead to optimal outcomes. Additionally, Gini index values are subject to normative (subjective) statements. In other words, it is not clear what values of the Gini index represent "too much" inequality.

5. Empirical strategy

In the next sections, we explore the relationship between the choice to own a house and a family's net wealth. Since families with more net wealth may be buying a home because they are wealthy, we have a possible reverse-causality problem. Does homeownership cause wealth accumulation, or is it the other way around? We go beyond estimating an association and attempt to estimate whether owning a home causes a faster accumulation of net wealth, rather than the other way around. The answer to this question is of great interest because many people believe that owning a home is a better vehicle for accumulating net wealth than renting and investing in the stock market.

5.1 Tenure's effect on net wealth accumulation

We estimate Equation (1) below:

$$(1)\ Net\ wealth_i = f(Tenure_i, Controls_i) + Unobservables_i$$

More precisely, we regress, at the family-unit level, net wealth on a dummy variable that flags whether the family rents and does not own real estate (equals to 1) or whether the family owns their home with a mortgage (equals to 0). One reason we focus on these 2 specific groups is because they represent typical owners and renters. Another reason is that we think that renters who own other real estate may be more similar to homeowners.

Net wealth is a stock variable (as opposed to a flow variable) that can be affected by many variables. Thus, we control, as much as the data allow us, for a variety of factors that may influence wealth accumulation. We control for family income, age, sex/gender, education, geography, immigration status, whether the family declared bankruptcy, if the family was refused a credit card and/or has skipped mortgage and non-mortgage payments. We also control for the value of inheritance.

Despite all these controls, our regression strategy likely does not identify the direct effect of tenure on net wealth accumulation because it may suffer from reverse-causality bias. While tenure may affect a family's net wealth, net wealth may also affect tenure. If that is the case, the dummy variable tenure is not independent, but rather endogenous.

We attempt to fix the issue of reverse causality with an IV strategy. The idea is to use another variable that (a) predicts tenure and (b) impacts the outcome variable (net wealth) only through its effect on tenure. The 2 conditions (a) and (b) are commonly called relevance and validity of the IV, respectively.

We develop two IVs using civil status information. The SFS provides information on whether the family unit is in a common-law or married relationship, as well as if the family consists of a couple without children or a single (unattached) person without children. The variations in our IVs (married vs. common-law, and couple vs. unattached person, in all cases without children) serve as an identification strategy to predict homeownership. We can easily verify that condition (a) holds, but we cannot verify whether condition (b) holds. We scale Equation (1) by dividing total family net wealth, after-tax income, and inheritance by the number of people in the family to account for the potential family-size effect. However, we are unable to control for some variables related to financial behaviour that may be systematically different between unattached individuals and couples, and between married couples and common-law couples, that may affect net wealth directly. For instance, it is possible that unattached individuals have different spending habits than couples.

Table 4 presents the main results of our empirical strategy. For these regressions, we must use microdata and thus, for confidentiality reasons, we had to suppress the number of observations we used in each regression. First, looking at models A and C (OLS regressions), we see that being a renter in our data is associated with having less net wealth. The coefficients are economically and statistically significant. On average, renting is associated with having around half a million dollars less net wealth than owning (-$393,160 and -$514,580 per adult for models A and C, respectively). As mentioned above, these results likely suffer from reverse-causality bias, and that may be why we see large negative coefficients that are statistically significant.

Second, when we estimate models B and D (IV regressions), our conclusions change. On the one hand, the IV strategy using common-law status (vs. married) shows that tenure no longer has a statistically significant effect on net wealth.[14] This means that, if the IV is relevant and valid, we cannot say that tenure affects the net wealth of families. On the other hand, if our second IV, that compares singles to couples, is valid, then renting still reduces net wealth, albeit less so than OLS indicated. However, we cannot actually rule out that the coefficient on tenure in model D is statistically different from the coefficient in model C.

We also examine the regression along other dimensions. After-tax income and inheritance both have statistically and economically positive effects on net wealth. For after-tax income, it should be once again interpreted carefully, as there might be reverse causality as well. This probably explains its "multiplier" effect (according to the regression, 1 additional dollar of after-tax income increases net wealth by about $8.5). In contrast, our regressions suggest that inheritance also increases net wealth but does not have a multiplier effect (1 additional dollar of inheritance increases net wealth by $0.75). This suggests that inheritance is probably more exogenous than after-tax income.

Table 4: OLS and IV regressions: tenure effect on net wealth per adult

	Common-law vs. married		Couples vs. singles	
Variables	**Model A: OLS**	**Model B: IV**	**Model C: OLS**	**Model D: IV**
Is a renter	-393,160***	-444,859	-514,580***	-396,937***
After-tax income	8.57***	8.52***	8.36***	8.53***
Inheritance	0.70***	0.70**	0.57**	0.57**
Observations[15]	N. A.	N. A.	N. A.	N. A.
R-squared	0.40	0.36	0.36	0.35

***p<0.01, **p<0.05, *p<0.1

Notes: Our source is the Microdata of the 2019 SFS. In models A and B, the sample is couples without children. In models C and D, the sample is singles without children and couples without children. Since we perform the regressions using different samples, we should not expect the coefficients to be identical. Results are not necessarily generalizable to other types of family structures, such as families with children. We use OLS standard errors, but statistical significance is the same if we use robust standard errors. Results remain similar even when we drop the top 1% of the wealth distribution to avoid outliers affecting our results.

5.2 Interpretation of results

Does tenure affect a family's net wealth, on average? If model D is correct, then being an owner has a positive impact on net wealth that is statistically and economically significant. If not, it is not clear if tenure has a clear effect on net wealth. Many factors can explain this.

The timing of purchase matters. For instance, those who bought a home at a time when interest rates were low and house prices had not yet fully adjusted to those lower rates benefited from a substantial run-up in house prices compared to those who bought at market peaks.[16] Additionally, horizons also matter, as we also show later using our theoretical model simulations. In our simulations, holding onto a housing purchase for around 12 years outweighs the transaction costs associated with buying and selling the home and leads to high rates of return. In other words, when a family buys, when it sells, and how long it holds onto its investment are economically substantial factors.[17] In our regressions, we do not control for these elements because of data limitations.

Popular financial advice often argues that the faster net wealth accumulation of homeowners may be due to forced saving. Owners must pay their mortgage (which is equivalent to forced saving), whereas renters may save less and spend more at early stages of life. Since we do not control for savings rates, we cannot say how economically significant this element is. Later in this section, we use a theoretical model to control for this, and we also explore the dynamic nature of wealth accumulation that our regressions cannot address.

5.3 Gender, Indigenous status, immigration status and net wealth

In addition to our interest in understanding the impact of tenure on net wealth, our data also offer us an opportunity to study the correlations of some demographic factors with net wealth. We use OLS regressions to study the correlations between gender, Indigenous status, and immigrant status, and family net wealth. While these variables are exogenous, it is likely that

there is an omitted-variable bias in our model. For example, our regression does not control for unobservable variables, which may be correlated with both net wealth and these exogenous characteristics.

Because gender, indigeneity, and immigration status are individual characteristics that may not be shared by all members of the family, we condition our model on being an unattached individual (a single person without children).

We find that these characteristics had either statistically or economically insignificant associations with net wealth. These results hold, even when each regression is further conditioned on tenure (Table 5).

Table 5: OLS regressions of gender, Indigenous status, and immigration status on net wealth for unattached individuals

Variables	All	Renters only	Owners only
Male	2,178*	27,064	14,041
Indigenous	-15,379	-21,727*	-48,799
Immigrant	28,568	5,841	85,838
After-tax income	8.49***	7.48***	7.59***
Total inheritance	0.79***	0.27	1.10***
Highest education			
High school diploma	75,266**	23,380	12,5120*
Non-university post-secondary Certificate or diploma	105,027***	32,458	147,096*
University degree or certificate	15,6348***	70,801***	196,099**
Observations[18]	N.A.	N.A.	N.A.
R-squared	0.45	0.5	0.44
***p<0.01, **p<0.05, *p<0.1			

Notes: Our source is the micro data of the 2019 wave of the SFS.

While our results did not reveal any significant correlations, that does not mean that such correlations do not exist. A possible explanation for the lack of association we estimate in our data is that we are holding fixed a selection of characteristics that propel wealth accumulation but that are likely also correlated with gender, indigeneity, and immigrant status (such as income, inheritance, and education). To test this hypothesis, we ran regressions to see if gender, indigeneity, and immigrant status are correlated in our data with after-tax income at the individual level. Controlling for variables such as age, geography, education, and owning a business, we find that, in our data, being female or an immigrant is significantly associated with having less after-tax income (Table 6).

Table 6: OLS regressions of gender, Indigenous status, and immigration status on after-tax income for unattached individuals

Variables	All
Male	4,790***
Indigenous	-2,954
Immigrant	-8,444***
Observations	N.A.
R-squared	0.25
***p<0.01, **p<0.05, *p<0.1	

Notes: Microdata of the 2019 wave of the SFS.

5.4 Model simulations

As discussed in section 4.2, our main difficulty is in establishing the direct impact of tenure on net wealth. Even though our IVs potentially mitigate some of the reverse-causality bias, they may still be invalid. In contrast to the statistical tools we have used thus far, theoretical models have the advantage of delineating a clear cause-and-effect relationship between variables of interest, which, in our case, would run from homeownership to net wealth. The disadvantage of using a theoretical model is that results hinge on the assumptions we make in the model. If those assumptions are far from reality, the model will likely provide results that are also far from reality. We lay out the assumptions we make in our model below.

We develop a theoretical model in which we compare the *after-tax* net wealth of the same family after a certain number of years under 2 hypothetical scenarios. In the first, the family buys a home and accumulates net wealth through price appreciation and paying off their mortgage principal, whereas in the second, the family rents the same home and accumulates wealth through savings and investing in the S&P 500 index.

We simulate our model with actual growth rates in house prices, which we compute using the 2019 SFS, and actual growth rates in the price of the S&P 500 over the same period of time.[19] We consider 3 cases. In the first, we compare buying a home to renting it and investing in the S&P 500, and then liquidating (selling) the home or stocks, respectively, after 1 year. In the second and third cases, we repeat the first experiment but consider 12- and 33-year horizons instead, before liquidating the home or stocks. We set the time horizons specifically to 1, 12, and 33 years due to data limitations.

The assumptions we make in our model are as follows:

- Rent covers all the ongoing expenses landlords incur but does not cover the landlord's mortgage principal payments (or the opportunity cost of investing their capital elsewhere).
- As a result of the previous bullet point, in our model, a renter family saves the exact same amount that a family that owns saves through paying off their mortgage principal, where we assume that homeowners' savings are equal to the amount paid towards reducing the principal.

- There are transaction costs to buying and selling a home; 2.5% of the purchase price when buying, and 5% of the sale price when selling (Gruber and Martin, 2003). A family that rents and invests in the S&P 500 pays 1 percentage point annually in management fees on its capital gains from the S&P 500.
- We assume that owners choose a mortgage contract with a 30-year amortization schedule and a 4% interest rate.[20]
- Capital gains from housing are not taxed at all upon selling a home, but capital gains from S&P 500 investments are taxed at a rate of 25%. These assumptions mimic tax rules in Canada, which state that capital gains on owner-occupied housing are fully tax-exempted, whereas 50% of the capital gains generated on stock market investments are taxable at the investor's marginal income tax rate.
- Owners make a 20% downpayment, and renters do not use any leverage when investing in the S&P 500.
- To make the analysis *ceteris paribus*, both owners and renters start with the same amount of net wealth. An illustrative example may help. Suppose a family buys a home worth $1,000,000 with a $200,000 down payment and pays 2.5% of the purchase price in transaction costs. To do this, they need to have $225,000 in net wealth. Thus, we assume that if the same family rented instead, their investment in the S&P 500 index would start with $225,000.

As we discussed in previous sections, mortgage payments force owners to save,[21] whereas renters are not forced to save. Thus, renters may save less if they are not forced to do so. However, our focus here is on how much net wealth renters would accumulate if their savings behaviour were the same as that of owners. This is another advantage of modelling; it allows us to control for factors that are hard to control for in the data.

If we wanted to compare how net wealth accumulation differs between renters and owners, but allowed renters to save less, we would have to incorporate utility from consumption in our model, because, in that case, a family that rents would have more control over its consumption than it would have if it owned. Thus, if we compared renting to owning using a consumption-savings lifecycle utility model, and the same rates of return in both housing and the S&P 500, renters' expected utility would be greater than owners' expected utility, *ceteris paribus*.

We show the results of our simulations in **Table 7**. For the 1-year horizon, we see that, in our simulations, owning generates 28% less wealth. Even though owning has the advantage of high leverage relative to investments in the S&P 500, the transaction costs of buying and selling a home are high enough to counteract that benefit. For the 12-year horizon, owning generates 20% more wealth in our model. This is because leverage during that period is high, and house price appreciation is large enough to offset the high transaction costs. Lastly, when the time horizon is 33 years, after-tax net wealth is almost the same in our simulations in both scenarios.

This is because, over longer horizons, owners pay off more of their mortgage, and in that process, they deleverage their investment, which reduces their returns. Since house prices in our data grew more slowly than the S&P 500, on average, deleveraged owners in our model accumulate wealth more slowly than renters who invest in the S&P 500.

Table 7: Model net wealth simulations (2019 SFS) (buying a home with 20% down payment or renting the same home and investing in the S&P 500)

Scenario	After-tax net wealth (owning relative to renting and investing in S&P 500)
Liquidating investment (home or S&P 500 stocks) after 1 year	28% less wealth as a homeowner vs. renting and investing
Liquidating investment (home or S&P 500 stocks) after 12 years	20% more wealth as a homeowner vs. renting and investing
Liquidating investment (home or S&P 500 stocks) after 33 years	1% more wealth as a homeowner vs. renting and investing

Notes: Our source is the Public Use Microdata Files of the 2019 wave of the SFS, and data on the S&P 500 index.

All in all, using data from the past 33 years, our model suggests that, during that period, homeownership led to less wealth than renting and investing in the S&P 500 over short horizons, more over medium horizons, and about the same over long horizons. The advantage of our model is that it provides a clear cause and effect running from homeownership to net wealth accumulation, holding savings rates and other factors constant, which empirical analyses struggle with.

5.5 Heterogeneity in returns on principal residences

So far, we have focused on isolating the *average* effect of homeownership on net wealth accumulation. Here, we attempt to answer a related, but slightly different question: Does homeownership generate similar returns for all homeowners? In other words, does homeownership guarantee high returns?

To study this question, we use the fact that, for current homeowners, the 2019 SFS collects information on the original purchase price of their home, the value of their home at the time of the survey, and a range for the year in which they purchased their home. Using this information, we are able to estimate the rate of return through house price appreciation for each homeowner using the following formula:

$$(2)\ R_i = 100 * \left(\left(\frac{(1-\tau_s)\times P_{c,i}}{(1+\tau_p)\times P_{o,i}} \right)^{\frac{1}{(2019-Y_{p,i}-1)}} - 1 \right).$$

i denotes a family, R_i is the average rate of increase in family i's house value, which we interpret as their rate of return on their house.[1] $P_{c,i}$ denotes the current value of family i's house and $P_{c,i}$ denotes the original purchase price of family i's house. τ_s denotes proportional transaction costs associated with selling the house, which we set to 5% of the current house value, and τ_p stands for proportional transaction costs associated with buying the house, which we set to 2.5% of the original purchase price. $Y_{p,i}$ denotes the year in which family i bought their house. Since we only observe ranges for the year of purchase (intervals range from 1-, 2-, 5-, and 10-year time spans) we set $Y_{p,i}$ based on the midpoint of the range.

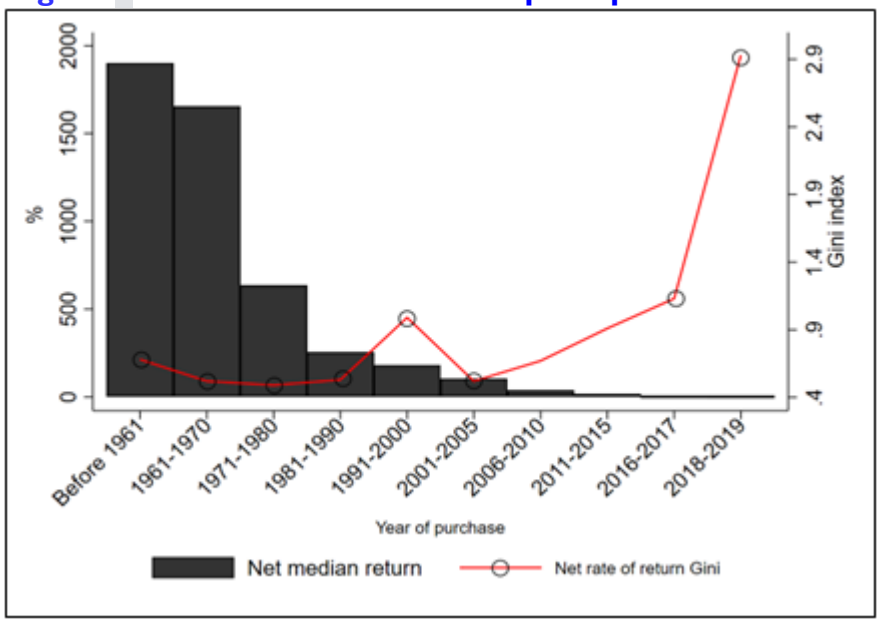
After estimating R_i for each homeowner in our sample using Equation (2), we truncated the highest 2% and the lowest 2% of returns to remove outliers. We then computed the median return as well as the Gini index for the remaining rates of return, where we conditioned both measures on the year of purchase.

We show results in **Figure 3**. The x-axis represents the year of purchase, the left y-axis represents the median returns on housing, and the right y-axis is the Gini index for the rates of return. The figure shows that, the longer a family held onto their house, the higher was the median return. The figure also shows that the rates of return on housing in our data are heterogeneous. This is especially true in the first few years of ownership, during which the high transaction costs more than offset the impact of house price appreciation on rates of return for the majority of owners. In some cases, the Gini index is higher than 1. This is because some families in our data had negative returns due to their leverage and high transaction costs. It is particularly insightful to observe that, even for homeowners who bought their house before 1960, the Gini index for the rates of return in our data is around 0.7 and is essentially the same as it is for those who bought their house sometime from 2001 and 2005. In other words, after passing the 15-year mark, inequality in rates of return on housing in our data stabilizes and remains very high.[23] This degree of inequality is as high as the overall inequality in net wealth observed in our data for the population of families.

Overall, our analysis suggests that there is heterogeneity in the rates of return on housing; some homeowners do well, while others do not. In some cases, homeownership could even reduce a family's net wealth.

[1] Some families may be more leveraged than others, which would affect their effective returns. Unfortunately, we cannot see the degree of leverage at each point in time during homeownership for those that have owned for longer times, which means that we cannot control for leverage well. However, most homeowners purchase their homes with a loan-to-value ratio of 80% or higher and pay off their mortgage debt over the course of 25-30 years. Thus, focusing on house price appreciation probably understates, rather than overstates, inequality.

Figure 3: Gini index of returns on principal residences



Notes: Public Use Microdata Files of the 2019 wave of the SFS.

6. Concluding remarks

Empirical analyses of the impact of housing tenure on family wealth in Canada are sparse. Our research examined this complex question using data from the 1999 to 2019 SFS. We found that, in our data, renters' share of total net wealth was much lower than that of homeowners, even after adjusting for their relative proportion of the population. We also found that wealth disparities within the renter population were greater than the wealth disparities within the homeowner population. However, we did not find clear evidence that one group accumulated net wealth more slowly than the other, challenging the notion that homeownership guarantees an acceleration in net wealth accumulation. We also found that, in our data, in contrast to common beliefs, returns on principal residences for homeowners were highly varied, implying that housing does not guarantee high financial returns.

Future empirical research could benefit from the utilization of much larger datasets, such as the Census, if they contain net wealth information. This would allow IVs such as the ones we have constructed to have sufficient statistical power, which in our case was an issue, especially when we used the common-law IV strategy, which was the more promising IV, in our view. Having access to Canadian longitudinal data on wealth, such as the American PSID, would also be valuable, as they would allow researchers to study the dynamics of wealth over time.

Regardless of data, to examine whether renters are worse off or better off relative to owners, we think that future research should consider focusing more on models of utility with consumption risk. This is because, ultimately, the question is whether owning a home improves the well-being of families relative to renting.

Glossary

Key term 1: Ordinary least squares (OLS) is statistical method for estimating the parameters of a linear regression model. It minimizes the sum of squared differences between observed and predicted values to find the best-fitting line.

Key term 2: An instrumental variable (IV) is a statistical tool used to address endogeneity issues in regression analysis, particularly when dealing with potential omitted-variable or reverse-causality bias.

Key term 3: The Gini index is a measure of economic inequality within a population, ranging from 0 to 1. The former implies perfect equality, meaning everyone in the population has the same income or wealth, while the latter suggests perfect inequality, meaning that one individual or group has all the income or wealth, and the everyone else has none.

Key term 4: The Lorenz curve is a graphical representation of income or wealth distribution. It plots the cumulative share of total income or wealth received by the cumulative percentage of the population, ordered by ascending income or wealth. The curve helps to visually represent and quantify economic inequality, with greater deviation from a perfect equality line indicating greater inequality.

Key term 5: Reverse causality occurs when A may be causing B but B may also be causing A.

Key term 6: The S&P 500 index is a stock market index that tracks stock performances of 500 of the largest companies listed on stock exchanges in the United States. We use this investment option for renters in our model simulations because it is a relatively accessible and reliable investment option which essentially does not require a minimum investment amount.

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