

Estimating the Impacts of the Speculation and Vacancy Tax

Summary Findings:

- While all BC markets experienced sharp declines since 2018, the Speculation and Vacancy tax (SVT) is estimated to have reduced home sales in taxable regions in BC by an additional 12.5 per cent compared to non-taxable regions. Growth in home prices since 2018 is estimated to be 5 per cent lower in taxable regions in BC compared with non-taxable regions due to the SVT.
- However, these impacts effectively disappear if Metro Vancouver markets are excluded from the analysis, suggesting the impact of the SVT has been limited to Metro Vancouver.
- A recovery of home sales is underway around the province, and without addressing significant supply issues, any progress made toward improved affordability looks to be short-lived.
- The SVT's impact on the rental market also appears to be more material in Metro Vancouver, where there was a record increase in rental supply, yet it is not possible to disentangle this from impacts of the Empty Homes Tax and short-term rental regulations that were implemented around the same time.

Introduction

Since 2018, several housing policies designed to dampen demand and household indebtedness have been implemented by federal, provincial and municipal governments. These include the federal government's revised Guideline B-20, generally referred to as the mortgage stress test, the increase and expansion of the province's Foreign Buyer Tax (FBT), and the new Speculation and Vacancy Tax (SVT). This period also coincided with interest rates gradually rising from very low levels.

Given the concurrent implementation of these measures, it is difficult to isolate each policy's impact on the housing

market.¹ While this report focuses on the impact of the SVT, the provincial government also increased the FBT rate from 15 to 20 per cent and expanded the geographic scope of the taxable regions. While foreign transactions have declined, that downtrend occurred well before Budget 2018 and was likely prompted by external factors such as tighter capital controls by the Chinese government in 2017 (*Figure 1*).

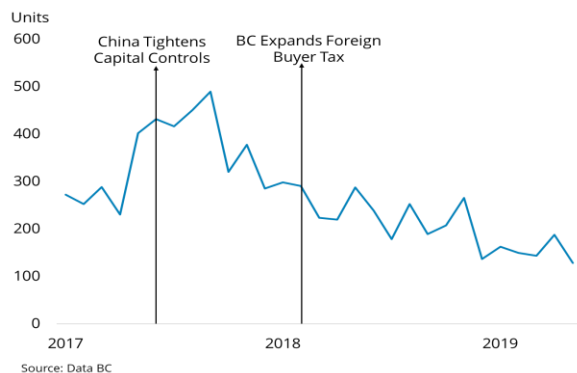
Given there is considerable overlap between the SVT and FBT regions, our estimated impacts could be viewed as

¹ In a previous study, BCREA Economics estimated that B-20, along with rising interest rates and strained affordability, accounted for as much as 85 per cent of the

decline in 2018 home sales. BCREA Market Intelligence - <https://www.bcrea.bc.ca/wp-content/uploads/the-impact-of-the-b20-stress-test-on-bc-home-sales-in-2018.pdf>

capturing the combined impacts of the province's Budget 2018 policy measures.

Figure 1: Non-Resident Purchase of Residential Properties



The Speculation and Vacancy Tax

The SVT is part of the BC government's 30-Point Plan for housing announced in February 2018.² The impetus for the SVT, according to the provincial government, is to discourage housing speculation and to encourage people with vacant homes to convert them to long-term rentals.

The annual tax targets foreign and domestic owners of residential properties in designated taxable regions of BC³ who do not pay provincial taxes, and satellite families who declare less than 50 per cent of their household income for Canadian tax purposes. In 2019, a 2 per cent tax rate was applied to the assessed value of properties owned by foreign owners and satellite families, and 0.5 per cent for Canadian citizens or permanent residents (e.g., an owner who pays taxes in another province).

According to the provincial government, the "...tax only applies in urban housing

² Homes for B.C. -

https://www.bcbudget.gov.bc.ca/2018/homesbc/2018_homes_for_bc.pdf

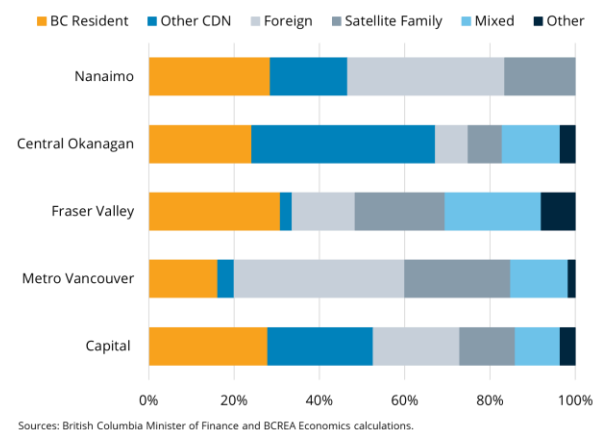
³ With some exceptions, the tax generally applies to municipalities within the Capital Regional District (e.g., Victoria, Saanich, Sooke, Sidney, etc.), Metro Vancouver Regional District, Abbotsford-Mission, Chilliwack, Kelowna, Nanaimo and Lantzville.

markets hardest hit by the crisis,"⁴ and exemptions from paying the tax range from vacation properties owned by British Columbians to situations related to death and health.⁵

As of September 2019, data from the BC Ministry of Finance shows that 9,350 owners of residential properties in the province paid the SVT, which represents about 0.5 per cent of total residential properties in the province. Of these, 78 per cent were in Metro Vancouver where 31 per cent were foreign owners, 19 per cent were satellite families, and the remaining half were a mix of BC residents and other Canadians (*Figure 2*).

Revenue from the tax was \$115 million for the 2018-19 fiscal year, higher than what the province expected.⁶ The province intends to use the revenue to support affordable housing initiatives.

Figure 2: Share of SVT Payors by Type of Owner and Region



Impacts on the Rental Market

As stated earlier, one of the province's intentions with the SVT is to encourage

⁴ BC government news release -

<https://news.gov.bc.ca/releases/2018FIN0009-000501>

⁵ Full list of exemptions can be found here:

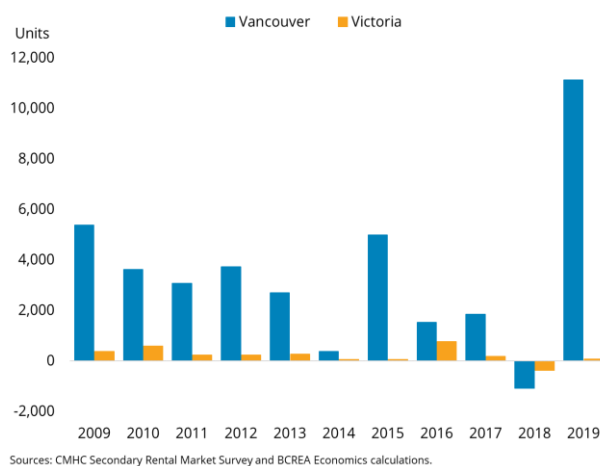
<https://www2.gov.bc.ca/gov/content/taxes/speculation-vacancy-tax/exemptions-speculation-and-vacancy-tax>

⁶ Speculation and Vacancy Tax Technical Briefing - https://news.gov.bc.ca/files/SVT_Consultation_All.pdf

the conversion of vacant homes into long-term rentals. Data from the Canada Mortgage and Housing Corporation⁷ shows that, between 2018 and 2019, a record number of condominium rentals was added in Metro Vancouver. Although we cannot determine the exact number of newly completed units versus the conversion of vacant units to long-term rentals, we do know that the number of units added to the rental market in 2019 exceeds the net additions to the condominium universe (Figure 3). This suggests that at least some existing units in Metro Vancouver were converted to long-term rentals.⁸

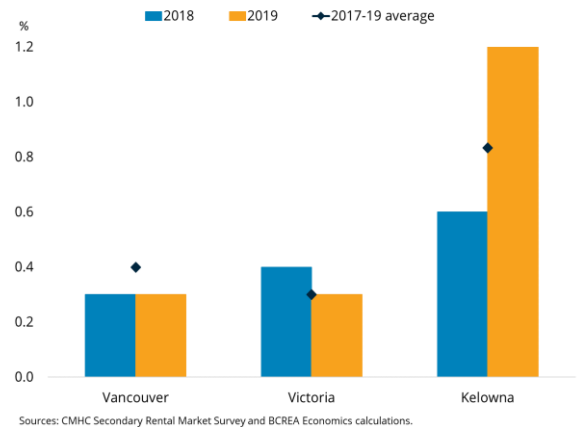
Despite the increase in supply, strong demand in Metro Vancouver kept the rental vacancy rate unchanged at 0.3 per cent in 2019 (Figure 4). In recent years, population growth in the younger cohort (between 15 and 34 years old) who tend to be renters has surged. In 2018, this cohort grew by 2.6 per cent, an increase not seen since 1996 (Figure 5).

Figure 3: Change in the Number of Units in the Condominium Rental Universe



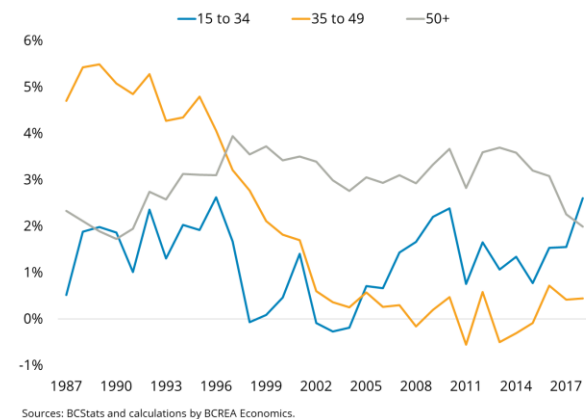
⁷ CMHC, *Rental Market Report* - <https://www.cmhc-schl.gc.ca/en/data-and-research/data-tables/rental-market-report-data-tables>

Figure 4: Rental Vacancy Rates of the Three Largest Paying SVT Regions



Nonetheless, the impact of the SVT on the rental market in Metro Vancouver is particularly difficult to disentangle from the impacts of the Empty Homes Tax (EHT) and short-term rental regulations that were implemented around the same time.

Figure 5: Growth in Population by Age Cohort in Metro Vancouver



According to City of Vancouver data on the EHT, 787 homes were declared unoccupied in 2019. This was about a 15 per cent decline compared to the previous year and 30 per cent lower than in 2017 when the number of declared vacant

⁸ CMHC reported that this is particularly true in the Burrard Peninsula area in downtown Vancouver, where 2,996 units were added to the rental market, while only 318 were new units.

properties stood at 1,131.⁹ However, the decline in the number of homes declared as vacant does not fully explain the increase in the condominium rental universe between 2018 and 2019 in Metro Vancouver (*Figure 3*), suggesting that other factors were at play.

The next largest SVT-paying region was Victoria, which reported a decline in the vacancy rate between 2018 and 2019 from 0.4 per cent to 0.3 per cent (*Figure 4*). Reasons for the decline likely have more to do with economic fundamentals than policy, given the change in the condominium rental universe was negligible during this period (*Figure 3*). Census data shows that there has been a slow shift from home ownership toward the rental market in Victoria, which likely has been exacerbated by an increasingly unaffordable housing market in the region. As well, Victoria continues to attract young workers who tend to be renters, placing further upward pressure on demand.

In contrast, the vacancy rate doubled in Kelowna between 2018 and 2019 from 0.6 per cent to 1.2 per cent (*Figure 4*). During this period, there was a surge in newly completed rentals and condos, adding much supply to the rental market. Also, unlike Metro Vancouver and Victoria, Kelowna has a higher share of SVT properties owned by BC residents and other Canadians who tend to own recreational and retirement properties (*Figure 2*). To be exempt from the SVT, such properties need to be rented for at least six months in the calendar year.

Estimating the Impact of the SVT on Home Sales and Prices

As a first step in analyzing the impact of the SVT on ownership markets, we looked at the change in MLS[®] sales and average prices from 2017 to 2019 across 76 sub-markets in BC, separating those sub-markets into two groups – SVT regions where the SVT applies and non-SVT regions where it does not.

While the trend in market performance between SVT and non-SVT regions was broadly similar, as *Table 1* shows, sales and average price declines were larger in SVT regions. On average, sales in SVT regions declined 29 per cent while those in non-taxable regions were down about 20 per cent in the post-2018 Budget period. Average prices increased 1.2 per cent in SVT regions and were up 7.3 per cent in non-SVT regions.

We further confirm a distinction in market performance between SVT and non-SVT regions using a machine learning algorithm called k-means clustering.¹⁰ Specifically, we apply an unsupervised learning algorithm (e.g., the data is not pre-classified as SVT or non-SVT) to sort the regions into clusters based on their similarity in market performance.

Table 1: Comparing SVT and Non-SVT Markets (Post 2018 Budget)

MLS [®] Data	% Change	
	Sales	Avg. Prices
SVT	-29.5%	1.2%
Non-SVT	-20.3%	7.3%
Cluster Analysis	% Change	
	Sales	Avg. Prices
Cluster 1 (SVT)	-31.5%	0.1%
Cluster 2 (Non-SVT)	-19.3%	7.8%

⁹ *Mortgage Broker News* - <https://www.mortgagebrokernews.ca/news/vancouver-empty-homes-tax-is-working-city-officials-326143.aspx>

¹⁰ This is an algorithm that groups data into clusters by minimizing within-group variation. In this analysis, it attempts to find clusters of markets whose change in sales and average prices are as similar as possible.

Difference-in-Difference Analysis

Since the SVT applies in only some markets across BC and not in other (sometimes adjacent) markets, we try to identify the causal impact of the SVT employing a common method designed for policy evaluation known as difference-in-difference (DiD).

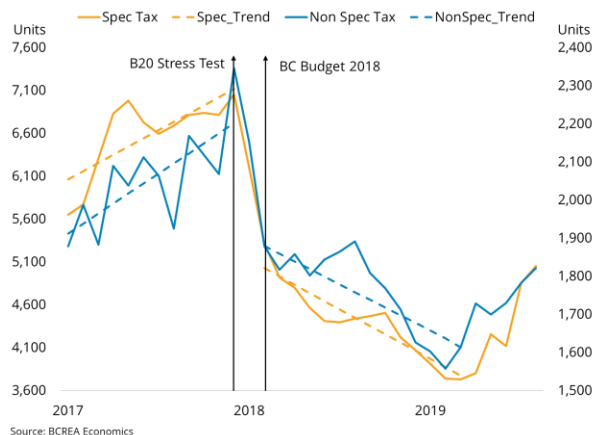
DiD is a quantitative technique often used to study causal relationships in settings where, as in the case of the SVT, the selection of treatment groups was not random and when other factors may have impacted outcomes when the policy was put into effect (e.g., mortgage stress test, rising interest rates). While not perfect, this technique provides a solid benchmark to the magnitude of market impact attributable to the SVT.¹²

A key assumption for the validity of DiD estimation is that the treatment and control groups, in this case the SVT and non-SVT regions, have a parallel trend prior to the policy intervention.

As shown in *Figure 7*, the pre-Budget 2018 trend in non-SVT and SVT region sales was very similar, as was the reaction to the B-20 stress test at the beginning of 2018.

DiD assumes that, absent a policy intervention, the post-intervention trend in the SVT and non-SVT regions would be identical. While the trend in sales for both groups is very similar following the Budget 2018 announcement of the SVT and other tax measures, the magnitude of sales decline in SVT regions was noticeably larger. Using DiD, we attempt to discern how much of the difference in trends was due to the implementation of the SVT.

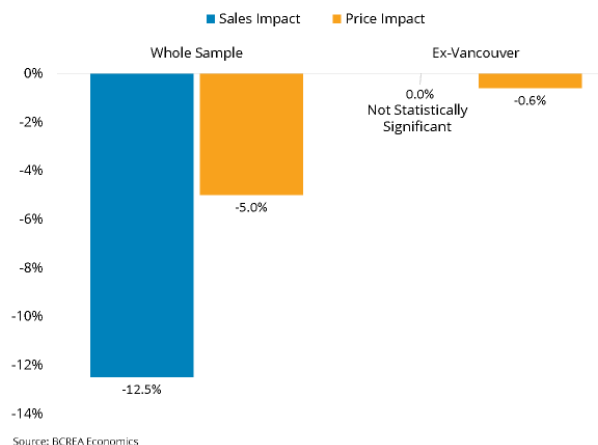
Figure 7: Sales Trends in SVT Regions and Non-SVT Regions



Our DiD estimates show that sales in SVT regions underperformed those in non-SVT regions by approximately 12.5 per cent since 2018. That means that regions where the SVT is in place, sales were 12.5 per cent lower than they would have been without the SVT.

Similarly, our DiD regression for MLS® average prices reveals that price growth in SVT regions was 5 per cent lower than in non-SVT regions since the introduction of the tax (*Figure 8*).

Figure 8: Estimated Difference Between SVT and Non-SVT Regions



¹² See appendix for methodology and detailed results.

We also estimated the DiD regressions excluding Metro Vancouver to gauge whether our results held up for markets where the tax applies, but where there were relatively few SVT payors.

Estimating the same regression but for a data sample that excludes Metro Vancouver, we found that the impact of the SVT on home sales was close to zero and not statistically significant. The impact of the SVT on home price growth was an estimated negative 0.6 per cent.

Conclusions

Our estimates show that tax measures introduced in Budget 2018 compounded the already significantly negative effects on home sales and average prices from other policy measures, particularly the B-20 stress test. While B-20 is still the dominant causal factor in the broad market slowdown that occurred in 2018 and 2019, markets in which the SVT was levied underperformed non-SVT regions by a significant margin. However, these results seem to be confined to Metro Vancouver markets with negligible difference in market performance

between SVT and non-SVT markets on Vancouver Island and in the Okanagan.

The combined effect of federal and provincial measures may have successfully arrested the rapid acceleration of home prices that occurred before 2018. However, a recovery of home sales is underway around the province, and without addressing significant supply issues, any progress made toward improved affordability looks to be short-lived.

Moreover, while the SVT, the City of Vancouver's Empty Homes Tax and short-term rental regulations may have encouraged more units to be added to the rental stock, particularly in Metro Vancouver, vacancy rates remain extremely low and as a result rental rates continue to rise.

Perhaps the impact of the SVT will be felt longer term, as tax revenues are allocated to affordable housing and other projects needed to address the supply side of provincial housing. For now, it appears that the SVT, along with other recently enacted housing policies, provided an ultimately temporary salve to the issue of housing affordability.

Appendix: Methodology and Results

To estimate the impact of the SVT on sales and prices in SVT regions, we estimated the following standard difference-in-difference regression for our outcome variables Y_i (sales or prices in each market i) on Tax status $T_i=0$ for non-SVT markets, $T_i=1$ for SVT markets, a time dummy variable t_i where $t=0$ for the time period before the SVT and $t=1$ for the period after the SVT, and an interaction term to capture the impact of the SVT:

$$Y_i = \alpha + \beta_1 T_i + \beta_2 t_i + \delta(T_i * t_i) + \epsilon_i$$

Where,

α = constant term

β_1 = Treatment group specific effect (average permanent difference between treatment group (SVT markets) and control group (non-SVT markets))

β_2 = Time trend common to SVT and non-SVT markets

δ = Estimated impact of the SVT

ϵ_i = random, unobserved error term

The regressions were estimated in natural logs, so the coefficient of interest, δ , can be interpreted as a percent change in sales or prices due to the SVT.

The coefficient δ , which measures the impact of the SVT, reported below with t-statistics in brackets. Note: the regressions are in natural logs, so the reported impact is calculated as $e^\delta - 1$.

Table 1: Estimated Impact on Sales and Prices – Whole Sample

Outcome Variable	δ (t-statistic)	Estimated Impact, $e^\delta - 1$ %
Sales	-0.133 (-1.96)*	-12.5%
Prices	-0.052 (-2.719)*	-5.0%

*Statistically significant at the 5% level

Table 2: Estimated Impact on Sales and Prices – Excluding Metro Vancouver Markets

Outcome Variable	δ (t-statistic)	Estimated Impact, $e^\delta - 1$ %
Sales	0.002 (0.468)**	0.2%
Prices	-0.006 (-10.758)*	-0.6%

*Statistically significant at the 5% level

**Not statistically significant