Cash assistance vs social housing

Tom Davidoff

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1 Introduction

The high cost of housing in British Columbia makes it difficult for many households to afford to live here. It is thus natural for government to provide assistance with housing affordability to some households. This note addresses the question of whether that assistance should come in the form of cash grants to households on the demand side or subsidies to particular housing providers who offer below-market prices or rents to qualifying households on the supply side.

It is useful to the specific context of policy choices in B.C. before considering generic findings regarding cash versus in-kind transfers. There are significant existing in-kind and cash transfer programs on which new policy can build. The growing practice of encouraging rental over condominium tenure is a form of a supply-side transfer to renters, and there appears to be room for enhanced efficiency with respect to this practice.

1.1 Caveats

This document discusses housing affordability generally. The important questions of homelessness and First Nations reserve housing are not treated directly. The emphasis of examples will be with respect to the Greater Vancouver market, with which I have greater familiarity.

2 The Problem: Housing Affordability in B.C.

B.C. residents, particularly in the Vancouver, Victoria, and Kelowna metropolitan areas, face unusually high housing costs and hence compromised affordability. By one well-known if imperfect measure, the Demographia (2020) estimate of the ratio of median house prices to median income, Vancouver has the second worst housing affordability among markets in nine covered countries.

Households are commonly considered to face a housing affordability problem when they spend 30% or more of their income on housing.[1] For a host of reasons, rent is a better

[1] For example, CMHC mortgage insurance tests require that total mortgage and other housing payments not exceed 32% of total income (even under increased interest rates). The Census divides housing costs paid as a fraction of income into over and under 30%. The U.S. Department of Housing and Urban Development considers housing expenditures over 30% of income as burdened, but that ratio has grown with time. Of course, there is nothing magical about 30%: having more money to spend on goods other than housing is

numerator than owner costs in measuring this affordability ratio.[2]

B.C.'s affordability problem, while real, appears much less relatively severe in terms of the ratio of rent paid to income than the ratio of price to income. Among all Canadian renters in the 2016 Census, 40% paid more than 30% of their income on rent. In Vancouver, 43% paid more than that. In Victoria, 44% paid more than 30%. However, the 2016 statistic for all renters may understate B.C.'s current affordability problem relative to some other Canadian cities. Long-term incumbent renters who have benefitted from rent control are not representative of those currently searching for homes and may themselves be in precarious conditions: private landlords, who face tenant-specific rent controls, have strong incentives to try to get tenants to move out. Moreover, CMHC reports that rents have been escalating considerably more quickly in Vancouver (10.4% between October, 2017, and October, 2019) and Victoria (9.9%) than in Canadian metropolitan areas generally (7.7%). At the level of cost, a two bedroom apartment in a privately owned structure averages just over \$1,100 per month in all Canadian CMAs, but \$1,748 and \$1,448 in Vancouver and Victoria, respectively as of October, 2019. Another way in which rent-to-income ratios understate the housing affordability problem is churning out of households discouraged by high costs and replacement with higher income workers. Vacancy rates are also extraordinarily low in Vancouver, averaging under 1% over the past 5 years per the Greater Vancouver Housing Data Book. Simply finding an adequate home at any rent may be a daunting challenge (although COVID appears to have slackened the market somewhat).

The major housing markets in B.C. may be characterized as challenged in adding supply both by regulation and natural impediments to growth. Canadian Mortgage and Housing Corporation (2018) estimates that long-run housing supply elasticity in Vancouver is less than 0.5, relative to average values around 1.0 for other large Canadian cities. While record-setting construction in recent years has been observed, the rate of price growth over the past decade has far outstripped the rate of quantity growth, consistent with a low long-run supply elasticity.

3 Current Government Policy

There is considerable government intervention into housing markets already. Among the major interventions are the following:

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always better than having less, so low quality-adjusted housing costs and high incomes are generally good. Another imperfection is substitution, renters in less expensive jurisdictions may live in generally better homes.

[2]Housing price to income ratios may be misleading in comparisons both across time and locations. For homeowners, mortgage amortization is not an economic cost but is commonly included in expenditures on housing. The opportunity cost of home equity that could earn returns in other assets is commonly ignored. Moreover, Vancouver should have high purchase prices relative to incomes because its supply and demand fundamentals indicate long-run growth of rents. This is not a violation of no-arbitrage, per Gyourko, Mayer, and Sinai (2013): rental dividend yields provide a degree of freedom for differences in expected capital gains. Future capital gains are paid for in purchase prices and hence annual mortgage costs, but the future benefit should approximately equal the acquisition cost. Additionally, there is a very high correlation between lifetime wealth and homeownership, so the households most in need of government assistance are generally renters.

3.1 Social Housing

Most housing construction in Greater Vancouver is apartments, of which roughly 75% have been condominiums over the past decade.[3] Of rental housing starts, various types of social housing represent roughly 20%, a share that appears to have risen recently, abetted by increased Federal and Provincial activity. Roughly 15% of the stock of rental units in Greater Vancouver are social or cooperative. Federal subsidies both for social and cooperative housing and tax preferences for rental housing weakened in Canada starting around the mid-1970s, as in the U.S. The waitlist on a centralized social housing registry (13,000 in 2019) is large relative to the estimated stock of 50,000 social housing units.

Both B.C. Housing at the Provincial level and CMHC have greatly expanded their involvement in rental housing in recent years. In 2019/2020, B.C. Housing appears to invest roughly $500 million in capital grants and operating assistane to housing providers.[4]

3.2 Rent Control

Rent control in B.C. has become much stricter over recent years for two reasons: first, the excess of market rental growth over inflation appears to have grown and second, the allowable rent increase under private contracts has fallen from CPI growth + 2% to only CPI growth. Notably, the Rental Tenancy Act does not affect the growth of rents tied to income in subsidized housing.

Given that rents are decontrolled at vacancy, rent control is essentially a stochastic transfer from landlords to tenants with an expected value that grows with the tenant's tenure in a property. This could be a feature of private contracts but is instead mandated.

Relative to a world with no rent control, rent control is a disincentive to build new rental housing and a disincentive to transfer existing units to rentals. A large fraction of all rental units in Greater Vancouver are condominiums and basement suites rented by individual owners to tenants.

A very rough approximation would be 200,000 households significantly affected by rent control, saving 10% on rent of $1,250 per month at market rates would be a $300 million annual transfer from landlords to tenants induced by rent control (excluding the equilibrium effect of diminished rental supply). $1 billion per year may be a more reasonable approximation, again ignoring the disincentive effects.

3.2.1 Landlord incentives and tenant protections

A problem with rent control combined with vacancy decontrol is that it provides incentives for landlords to churn tenants. There are limitations on the means landlords can use to churn tenants, but creating fake relation occupancies or manufactured "necessary" renovations appear not to be unusual techniques used to mark rents to market.[5]

[3] Greater Vancouer Housing Data Book, 2019.

[4] To be confirmed, per https://www.bchousing.org/about/corporate-reports-plans, page 18 of 2019/22 statement.

[5] See, for example: `https://vancouversun.com/news/local-news/vancouver-tenant-continues-battle-against-re`

3.2.2 "Spot" rental only zoning

One way to eliminate long-term tenants is to demolish an older building and build a new apartment building. Residential Rental Tenure Zoning, originally conceived of as a way to help new purpose rental buildings compete for land with condominiums, has been used in New Westminister and Richmond to preserve rental tenure on individual rental lots. This has been a controversial intervention.

3.3 Tax Preferences and subsidies

Neither federal nor provincial income tax is assessed on the implicit rents (net of expenses and depreciation) and realized capital gains for owner-occupiers but is for landlords. Given the strong relationship between wealth and homeownership, this is a regressive policy that reduces the quantity of rental housing relative to owner housing. With rental income net of allowable expenses of perhaps 2.5% of property value and similar mortgage rates, we might not expect more than .5% of property value to be taxable each year if held commercially (that figure can include discounted future capital gains taxes). At a 50% combined tax rate on a $1,000,000 home, that would be a $2,500 subsidy per year. This is large relative to the B.C. Homeowner's grant, a further subsidy to ownership over rental.

The Provincial share of that $2,500 income tax subsidy, at a 10% marginal tax eate is closer to in line with the Rental Assistance Program's means-tested maximum of around $550.

BC Housing appears to spend roughly $500 million on rental assistance (RAP and SAFER) each year. In the larger housing markets, this is almost surely "inframarginal" assistance that should be nearly equivalent to cash as absent a very long rent controlled tenure it is not feasible to be housed for $500 per month in a private unit.

3.3.1 Tax preference for resident workers

The empty homes, speculation, and foreign buyer taxes, along with limitations on Airbnb restrict the non-local part of the demand curve, presumably shifting prices and rents down along steep supply curves.

3.4 Regulation

The impact on affordability of the types and tenures of housing built is complicated and realistically involves multi-dimensional assignment (see recent studies by Nathanson (2019) and Maattanen and Tervio (2014)). However, it is reasonable to expect that lower income households will benefit more from additional lower quality housing, with one important dimension of quality being multifamily versus single family units.

Land use regulation plays a large role in determining the types and quantities of housing available around the Lower Mainland. Apartments are forbidden in most residential areas of Vancouver and in the overwhelming majority of suburban land area. The relaxation of zoning has very large private value: consider a single family home on the West Side of Vancouver near but not in the Cambie Corridor. A single family home worth $2.5 million contains some redevelopment value. But a 4,000 square foot lot on which, say 8,000 square feet of multifamily space could be built,[6] could easily have a market value above $4,000,000.

Cities like Vancouver and Burnaby have actively, if imperfectly, expanded their "capture" of "land lift" from rezoning, earning hundreds of millions of dollars in recent years in rezoning fees. Assuming 1,000 single family homes could be rezoned for a land lift capture of $350,000 each per year for the foreseeable future, this is a potential income stream of $350 million per year, sufficient to fund a $1,000 annual renters benefit for each of the roughly 350,000 renting households in Greater Vancouver. This seems quite attainable, as the Housing Data Book shows an average of roughly 3,000 single family homes demolished per year under current regulation. The City of Vancouver alone appears to have budgeted for roughly $100 million in development charges in the 2020 budget (to be verified).

Expanding multifamily housing opportunities would have the effects of allowing more people to live in B.C.'s expensive CMAs while reducing prices and rents. Possibly in response to diminished condominium presale activity, municipalities in recent years have been turning to trading zoning for long-term guarantees that properties will be held as uniformly rental buildings in lieu of development charges. In the City of Vancouver, the city appears to commonly sacrifice up to $100 per built square foot in developer contributions in exchange for conversion to rental status. This does not guarantee affordability: 2-bedroom condos in new purpose built rentals are commonly listed at $2,750.[7]

Given that supply is largely rationed by zoning, the deadweight loss of property taxation in Greater Vancouver should be modest. Provincial surtaxes such as the Additional School Tax may therefore be a desirable if controversial source of funds that transfer to renters from owners, acting as a form of in-kind transfer.

3.4.1 The suboptimality of low density zoning

One concern commonly raised about upzoning residential neighbourhoods is that doing so causes land value inflation. Given that land use constraints amount to rationing of permits, it should not be hard to set zoning prices to clear the market at the desired quantity of redevelopment, with land values rising only enough to convince the desired numbers to sell. Moreover, the rationalization of residential zoning, per *Euclid v Ambler* is presumably to enhance the enjoyment of neighbourhoods. Since land values should approximate the total benefit minus costs of residents, it is difficult to rationalize zoning that destroys land value.[8]

3.4.2 More efficient sale of zoning

Relaxing restrictive low-density zoning is politically controversial, as trees and lawns are less disruptive than people as neighbours. The sale proceeds from relaxed zoning, which could go to funding affordable housing initiatives, typically fund "community amenities" which

[6] To a relatively "gentle" urban density of 2.0 Floor Space Ratio.

[7] See recent development applications summarized by the City of Vancouver planning department.

[8] Denser development presumably reduces the pace of sprawl as well as increasing affordability, so it seems unlikely that a regional strategy would involve restricting supply below the land value maximizing level that would be set by a monopolist over land. Mass rezoning throughout the region could lower land values, but under current zoning individual neighbourhood upzonings such as the Cambie Corridor (which are small relative to the region) have had large positive land value effects.

may placate incumbent residents. It appears that more funds on both dimensions could be achievable with a more focused approach to selling density.[9] The current practice of "density bonusing," whereby a specific type and quantity of housing is allowed at a specified price could be thought of as a Dutch auction mechanism. Communities could adjust the (neighbourhood-specific) price of density to achieve the politically feasible quantities while almost maximizing proceeds. Prices per square foot on the order of $100 per square foot in Vancouver, while economically large, seem considerably below the price minus marginal cost of square footage. A Provincial mandate of some upzoning combined with an institutionalization of best practices for value extraction and some requirement that a fraction of funds go to cash or in-kind housing transfers may be a desirable intervention.

4 Policy options: Cash transfers vs social housing

Social housing is relatively broadly defined in B.C. as "a housing development that government subsidizes and that either government or a non-profit housing partner owns and/or operates.". Affordable units in a mixed market-affordable building (such as are granted unusually high zoning densities at low fees under Vancouver's Moderate Income Rental Housing Pilot Program might count, along with deeply subsidized apartments in an entirely not-for-profit project. More broadly, when cities forego land lift capture to create rental units, this arguably amounts to government subsidy of housing units for renters, particularly since in principle (if not practice), land value capture revenue could support cash transfers.

We may thus pose the question of whether cash transfers to households or subsidies to owners of units that provide discounted rents are a better way to increase the wedge between housing cost and incomes for those qualifying for benefits.

4.1 The efficiency case against supply-side subsidies (the Second Fundamental Welfare Theorem)

Economists typically favor cash to "in-kind" transfers to handle the problem of insufficient income relative to consumer prices.

4.1.1 Within-individual efficient use of resources (concavity I)

One major reason for this relates to the problem of budgeting (or expenditure minimization to attain a target level of utility). Glaeser and Luttmer (1997) make this point in terms of rent control. A low income household faced with a large economic subsidy would likely not choose to live in an apartment in an A+ location; rather they would choose a more moderate level of housing but increased consumption on other dimensions. Obtaining the subsidy (or government enforced transfer in the case of rent control) may induce households to consume more or different housing than they would choose to consume. The income elasticity of demand for housing is generally believed to be below one.[10]

[9] See Elmendorf and Shanske (2020) for some formalization in a U.S. context.

[10] Davis and Ortalo-Magne (2011) provide macro evidence for an elasticity of one, but that is an outlier among empirical results, most of which are micro rather than macro as in Davis Ortalo-Magne.

For example, consider a household making a slightly below-median $70,000 for whom a rent of $\$70,000 \times .3/12 = \$1,750$ is affordable and desirable. If they were induced by a subsidy program to consume a two bedroom apartment with a market cost of $2,750, that would be an increase of $12,000 in their housing consumption per year. However, even if that increase in rent were fully subsidized with an effective $12,000 annual transfer, this would amount to a 57% increase in housing consumption compared to a 17% increase in income. Likely, that household could be made better off with a smaller allowance, but free choice over how to spend their new wealth.

4.2 Across-individual efficient use of resources: lotteries versus entitlements (concavity II)

Related to the within-household efficiency argument (through the idea of diminishing marginal returns) and relevant in the case of Vancouver is that some of the arguments for social housing are salient only in the case of very large indivisible transfers. A key argument made in City of Vancouver documents is a desire for diversity within the city: public housing allows at least some lower income households to mix in with the increasingly affluent households able to afford market housing in Vancouver.[11] Consider the case of a Kitsilano apartment building in which the city acquires rental status in exchange for roughly $80,000 per 800 square-foot 2-bedroom apartment. At a 3% marginal cost of funds, that is a $2,400 transfer, already large relative to a renters' rebate previously deemed infeasible budgetarily. A much larger transfer, though, would be required to make the unit affordable – the $12,000 annual payment required to get to affordability just below median household income could not be a broadly scaled entitlement in the context of current approaches to redistribution. Providing some low income households with $14,500 in annual subsidies ($1,000 per month plus the annualized foregone upzoning payments) but others with no assistance, as must occur with such large transfers, violates fairness and a principal that giving many people a little provides more benefit than giving a few people a lot.

An interesting question arises as to whether diversity is a good *per se* separate from household gains from transfers. That is, if low income households collectively would be better off with a small transfer living in Surrey, should we count any benefits to more affluent Vancouverites from getting to live near less affluent households in our welfare calculus? Outside of the clearly adverse concentrations of poverty that programs such as Moving To Opportunity address, it is not obvious what benefits arise from economic heterogeneity *per se*.[12]

4.3 Crowdout

In markets in which the costs of construction rise sharply with the volume of construction, or where government rationing of building permits is insensitive to the subsidized or market nature of housing built, subsidized housing units may crowd out private construction. Sinai

[11]This is ironic in the sense that the classical North American housing projects became problematic because they caused concentration of poverty.

[12]See Benabou (1993) for one interesting dimension of this problem.

and Waldfogel (2005) find that in some U.S. housing markets, there is considerable crowdout: more subsidized units is correlated with fewer private units. They find that this effect is weaker in markets like Vancouver where there is considerable demand for low-rent units. To the extent that vouchers go to households who would have remained in cities with or without the voucher, vouchers also fail to add to supply (but also put relatively modest upward pressure on prices). Sinai and Waldfogel find less crowdout of units (better targeting) in the case of Section 8 vouchers, which they find are more positively correlated with total housing units than are subsidized units.

4.3.1 Counterpoint: Politics and the free-riding problem of zoning

The delegation of zoning power to municipalities creates a free-riding problem. It may be individually irrational to tolerate neighbouring density (absent upzoning of one's own property combined with a willingness to move), but collectively desirable to address housing affordability. Casual observation suggests that there is more acceptance of subsidized rental housing than market condominiums in some communities. A provincial subsidy to a rental project might thus be expected to add to supply in a welfare-enhancing way.[13]

4.4 Arguments in favor of subsidized housing units

There are, however, arguments for in-kind transfers that should be considered

4.4.1 Mobility Moral hazard

Any transfer to households living in B.C. will induce a migration moral hazard. This puts a bound on generosity witihin housing transfer budgets anywhere near the current level: some have proposed that there should be a right to an affordable housing unit in one's desired community in B.C., but it is difficult how that could survive long-run open borders within Canada. What low-skill household would not want to enjoy B.C.'s high amenity levels with a guarantee of housing at 2/3 of income? This is in no way meant to deny that housing is a human right, but rather to recognize the scope of the challenge of establishing a right to live affordably in Greater Vancouver. Of course, migration moral hazard is in part the purpose of housing transfers: to allow people otherwise priced out to remain.

4.4.2 Moral hazard: Labour supply and intra-household allocation

There are moral hazard arguments that argue for subsidized units over cash in a similar quantity. First, there may be a disincentive to earn income that subsidizing selected units might screen out. Per Besley and Coate (1992), forcing people to consume goods different from what they would otherwise choose to consume in order to receive benefits may screen out

[13] Although the land market should adapt to political preferences, so for this to be true in equilibrium may require that the rental project not only can't compete for land with condos, but also fails to compete with single family. That condition can be met: recent discussions of modest upzonings in Vancouver indicated that mid-size rental projects cannot compete with single family on Vancouver's West Side if possibly so on the East Side. Laneway infill homes simnilarly are competitive with back yars and garages on the East Side but not commonly on the West Side.

those with greater ability to earn income. That is, there may be individuals who would earn high incomes absent a means-tested housing allowance but low incomes with the allowance in place. On the other hand, those consumers may be better off consuming less leisure but better private housing than by consuming more leisure but worse (public) housing.

A related consideration is intra-household allocation of resources. There is no moral hazard on labor supply for disadvantaged children, so rationing subsdized access to high quality housing may require a high level of relatively child-friendly consumption on parents who might value that subsidy less than they would cash. There is mixed evidence from the U.S. that programs such as Moving To Opportunity (Katz, Kling, and Liebman (2001)) that link housing assistance to the choice of geography lead to better outcomes than unrestricted cash. For most of the population in BC urban areas, the inequity in opportunity across school districts is not comparable to that in major U.S. urban areas. However, per Ries and Somerville (n.d.) there are appreciable differences in school quality across catchments in Vancouver, and as noted above an explicit goal of City of Vancouver housing policy is to preserve diversity of household incomes within city boundaries.

An interesting insight in Steinberg Schone (1992) is that depending on complementarities, an in-kind housing transfer that forces over-consumption of housing could expand labor supply if housing and non-housing goods are complements.

4.4.3 Moral hazard: Rent Control

Tax policy and rent control provide artificial incentives for housing developers to build for sale condominiums rather than purpose built rentals. Supply-side subsidies to the creation of either market or subsidized rental housing may thus be desirable. Rent control is a transfer to long-tenured renters, and landlord-renter pairs likely pay more in income taxes than owner-occupiers at a similar quality level. A counter-point here is that a demand-side housing allowance tied to rental status might accomplish the same nudge.

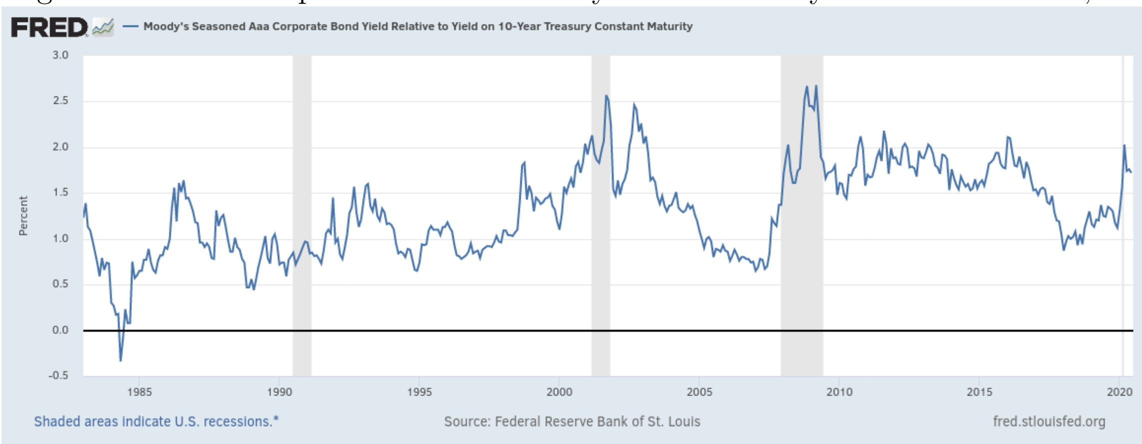
An **important reason why a nudge to rental may be more efficiently accomplished on the supply rather than the demand side** is that rental and owner-occupied tenure coexist as mixed strategies within most condo buildings.[14] This implies that on the margin, there is zero economic cost to a switch on the supply side from owner occupancy to rental.

4.5 Price effects of vouchers

Eriksen and Ross (2015) summarize and augment the studies of the price impacts of Section 8 (now "Housing Choice") Vouchers in the U.S. These means-tested and rationed vouchers provide landlords with the difference between 30% of a tenant's income and a market-specific allowable rent. Tenants thus have incentives to move to relatively high quality units, but landlords may be able to bargain away some of the surplus, depending on their willingness to deal with renters bearing the stigma of participation. A key finding is that rents increase for intermediate quality units near the allowable rent cap, but fall for lower quality housing units. Evidence from the U.K. and London suggest that a significant portion of the increase

[14] Per CMHC, roughly 25% of rentals in the Vancouver CMA are in condominiums (Vancouver CMA Market Rental Report, 2020.

Figure 1: Historical spreads of AAA bond yields above 10-year U.S. Treasuries, via FRED



in rents associated with vouchers is captured by landlords. Naturally the extent of price movements will depend on supply elasticities and the extent to which high quality units filter down to lower income renters.

5 Direct Government Investment and Capital Costs

One path towards supply side subsidies for government is to outright own units. Even public housing operators like the New York City Housing Authority have purchased "scatter site" apartments, so the units owned need not all be concentrated in particular developments. A general criticism in public ownership is a lack of managerial capacity, but there are some offsetting considerations.[15]

5.1 Cost of capital

As economists have long observed,[16] the fact that governments borrow at lower rates than private entities does not necessarily mean that their cost of capital when investing in market projects is lower than private investors'. Taxpayers arguably should require the same risk premia as private investors. However, to the extent the current low interest rate environment (and the spread of other forms of debt to treasuries, see Figure 1, and to the extent the public has a longer horizon than private investors, there may be an opportunity for taxpayers to invest in equity rather than debt in a profitable way. The current environment, in which the public sector faces unattractive cutbacks illustrates both

While govenment borrowing rates are typically very low in recessions, the marginal value of money received in recession is presumably very high – municipal cutbacks in the current environment suggest that.

[15]An important point here is that recent U.S. experience suggests that scatter-site rental management has expanded apparently successfully in the wake of the Great Financial Crisis and associated foreclosures on single family homes, commonly purchased by institutions. See, e.g. "Single Family Rental – An Emerging Institutional Asset Class", Amherst Capital, 2016.

[16]See, e.g. `https://voxeu.org/article/real-cost-government-credit-support-new-estimates`

Government should consider their true marginal cost of funds. One way for government to move condominium apartments to rental would be to purchase them in large numbers, hire property managers, and rent these units out. This could occur both for existing units and new units (where government might have bargaining power unavailable to private investors in bulk purchasing presale units). Current yields (cap rates, net rent divided by purchase price) on rental housing appear to be on the order of 3%. It seems unlikely that net income would fall over time, and government could presumably violate rent control if necessary during recessions if vacancy were to become an issue. Even with self-imposed vacancy control, assuming 2% inflation, government as an investor should achieve roughly 5% nominal yields on investment in rental properties assuming reasonably decent property management. This must be quite high relative to the cost of funds. Given a first-order gain to rental tenure per government policy, some direct investment in moderate quality condo apartments, perhaps through institutional partners, seems highly likely to be desirable.

Returning to the Kitsilano example, government invests $80,000 to guarantee that apartments are rented at $2,750 per unit. Through acquisition, at an economic cost likely to be close to zero or negative, taxpayers can acquire condos near suburban transit and guarantee that they are rented closer to the average CMHC rents.

5.2 A non-rationalization for supply-side intervention: Income Mixing, Supply-Side Subsidies, and Zoning

One rationalization for supply-side interventions is to guarantee income mixing in prized areas such as Vancouver's West Side. We have seent that the required subsidy is very large. By contrast, a modest government mandate of relaxation of suburban prohibitions on multifamily housing would obtain some immediate income mixing at no direct financial cost. Market apartments are less expensive than single family homes, but would not create immediate deep affordability in affluent suburban areas in the short-run. However, filtering of apartments appears observationally to be a significant phenomenon through depreciation. Imposing a "Mount Laurel" like mandate that some multifamily housing be approved each year in existing single family zones would thus guarantee a trajectory of improved affordability in currently exclusive areas such as West Vancouver or Oak Bay (Mount Laurel forces New Jersey municipalities to accept a "fair share" of multifamily development or buy themselves out, failing that, there may be a "builders' remedy" undoing strict zoning up to the fair share).

5.3 On-site supportive housing

There is ongoing research into whether "housing first" is the best approach to addiction (e.g. AJ et al. (2019)), but there is no question that certain population require a combination of deeply subsidized housing and on-site supports.

6 Summary

The Province and municipalities currently engage in considerable intervention on the supply and demand side of housing markets. Elementary economics favors cash grants over building-specific subsidies due to both the indivisibility and hence unequal allocation of large subsidies to render many units affordable and due to the possibility that beneficiaries are given large increases in consumption far from how they would allocate an equivalent cash grant. As in any market supply-side interventions may overcome moral hazard on the dimension of labour supply or intra-family resource allocation.

Zoning and rent control are very large interventions that should not be ignored in thinking through assistance to low income households. Through the sale of zoning, governments throughout BC can raise funds sufficient to finance significant demand or supply-side subsidies to affordable housing while using the market to move prices and rents down the demand curve.

To the extent that tenant protections can be circumvented, rent control provides a rationalization for shifting ownership to the social or public sector. To the extent that rent control is a desirable transfer from more affluent landlords to on average low-income renters, the practice of encouraging supply in the form of rentals over condos may be rationalized. Both supply-side subsidies to rental units in preference to condominiums or subsidies to renters but not owners can recover some of the share of rental units lost due to rent control incentives. One important area of low-hanging policy fruit appears to lie here: shifting apartments in the development stage from owner to rental tenure requires large outlays, typically without the promise of affordability as new units are the most expensive. Making development of rental units public does not solve the problem of the very high opportunity cost. By contrast, in partnership with private investor and operators, government could acquire less expensive existing condo units at what should be close to zero or likely negative economic cost to place into rental tenure.

Subsidies on the supply or the demand side may induce adverse equilibrium feedback. Subsidies to new supply of affordable units may crowd out market supply by raising construction costs, dampening price impacts and yielding reallocation of units rather than creation of more homes. However, given the importance of free riding by communities in zoning and possibly more willingness to accept subsidized rental units than market condos, it is possible that shifting some new supply to the social sector may shift out the rationed supply curve.

Given inelastic supply, subsidies to tenants can be expected to increase market rents, with the largest impact on the market segments where recipients are concentrated. U.S. evidence is mixed but appears to suggest these feedback effects are more adverse with respect to supply-side than demand-side subsidies.

One recent intervention documented by **Chettyetal** is that providing households with the in-kind transfer of information about housing options is a low-cost way to improve outcomes, particularly for children.

References

AJ, Baxter et al. (2019). "Effects of Housing First approaches on health and well-being of adults who are homeless or at risk of homelessness: systematic review and meta-analysis of randomised controlled trials". In: *J Epidemiol Community Health* 73.5, pp. 379–387.

Benabou, Roland (Aug. 1993). "Workings of a City: Location, Education, and Production". In: *Quarterly Journal of Economics* 108.3, pp. 619–652.

Besley, Timothy and Stephen Coate (1992). "Workfare versus Welfare Incentive Argu-ments for Work Requirements in Poverty-Alleviation Programs". In: *American Economic Review* 82.1, pp. 249–61.

Canadian Mortgage and Housing Corporation (2018). *Examining Escalating House Prices in Large Canadian Metropolitan Centres*. Research Report 69262. CMHC.

Davis, Morris A. and Francois Ortalo-Magne (2011). "Househould Expenditures, Wages, Rents". In: *Review of Economic Dynamics* 14.2, pp. 248–261.

Demographia (2020). *16th Annual Demographia International Housing Affordability Survey 2020, Rating Middle Income Housing Affordability*. Tech. rep. Introduction on Singapore by Wendell Cox and Hugh Pavletich.

Elmendorf, Christopher S. and Darien Shanske (2020). *Auctioning the Upzone*. Tech. rep. Case Western Reserve Law Review.

Eriksen, Michael D. and Amanda Ross (2015). "Housing Vouchers and the Price of Rental Housing". In: *American Economic Journal: Economic Policy* 7.3, pp. 154–76.

Glaeser, Edward and Erzo Luttmer (1997). *The Misallocation of Housing Under Rent Control*. Working Paper 6220. NBER.

Gyourko, Joseph, Christopher J. Mayer, and Todd Sinai (2013). "Superstar Cities". In: *American Economic Journal: Economic Policy* 5.4, pp. 167–199.

Katz, Lawrence, Jeffrey Kling, and Jeffrey Liebman (2001). "Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment". In: *Quarterly Journal of Economics* 91.2, pp. 607–654.

Maattanen, Niku and Marko Tervio (2014). "Income distribution and housing prices: An assignment model approach". In: *Journal of Economic Theory* 151.C, pp. 381–410. URL: https://EconPapers.repec.org/RePEc:eee:jetheo:v:151:y:2014:i:c:p:381-410.

Nathanson, Charles G. (2019). *Trickle-down housing economics*. Working Paper. Northwestern University.

Ries, John and Tsur Somerville (n.d.). "School Quality and Residential Property Values: Evidence from Vancouver Rezoning". In: *The Review of Economics and Statistics* 92.4 (), pp. 928–944.

Sinai, Todd and Joel Waldfogel (2005). "Do Low-Income Housing Subsidies Increase the Occupied Housing Stock?" In: *Journal of Public Economics* 89.11-12, pp. 2137–2164.

Steinberg Schone, Barbara (1992). "Do means tested transfers reduce labor supply?" In: *Economics Letters* 40.3, pp. 353–357. ISSN: 0165-1765. DOI: https://doi.org/10.1016/0165-1765(92)90017-S. URL: http://www.sciencedirect.com/science/article/pii/016517659290017S.