Housing and the Lifecycle

Real Estate and Your Financial Plan
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Overview

- Lifecycle consumers
  - Smoothing
  - Risk
- Quirks of housing
  - Big chunk of wealth
  - Big chunk of spending
  - Downpayment young
  - Hard to cash out old
- #vanre is expensive
  - Why
  - Will it crash?
Your financial plan

$ earnings

mortgage

RRSP, CPP, TSP, taxable savings

Idealized spending

Age ->
Canadian mortgage loans

● Commonly fixed rate for term of 5 years
  ○ Might be adjustable more frequently
● Pmt based on full amortization over longer period
● Present discounted value of payments = loan amount
● PMT = \( \frac{L \cdot r}{1 - (1+r)^{-\text{amortization}}} \)
  ○ These days about half of PMT in year 1 is amortization (!)
  ○ Interest part falls, amortization rises as loan ages
● Risk: rising interest rates may increase your payment
  ○ Good news: denominator is increasing in \( r \)
  ○ So payments rise but don’t double if \( r \) goes 3% to 6%
Complications to standard model

- Down payment constraint
  - (faculty programs)
- “The future’s uncertain and the end is always near”
  - Life annuities to hedge old age (pricing)?
  - Long-term care insurance?
  - Family expenditure risk
- Thin reverse mortgage market
  - In the news: retired economist with $6.5M home
    - But can’t afford 12k/yr taxes
    - Doesn’t want to move
  - So wind up with chuck of wealth illiquid until move or die
    - But maybe that’s a good hedge against longevity/illness?
We think people are risk averse.

Expected happiness from a gamble < happiness from expected value of gamble.
Which assets should you own?

- Tax favored is good
  - Retirement plans
  - Home equity
- Avoid risk with
  - Diversification
    - Barring insider information
    - Why try to beat Goldman Sachs?
    - Then riskiness of an asset mostly covariance with portfolio
  - Insurance
How does housing rate as an asset?

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- **Fairly tax-favored**
  - No dividend or cap gains tax if primary residence
    - And not American!
  - But yes property tax
    - Tax-deductible if a landlord
  - Mortgage amortization is thus tax-free savings

- **Risky?**
  - Insures against rent risk
    - Important if you are committed to market
  - But involves capital gains risk - exposure to #vanre
    - Good if you have kids and you want them to stay here
  - Very hard to assess overall riskiness
  - Worse for AP (bad state of tenure denial)
Some housing-specific problems

- Anti-owner
  - Maintenance can be expensive and you might be bad at it
  - Stratas are a huge pain
  - Downpayment constraint

- Anti-landlord
  - Incentives to renew lease
    - You can’t commit if market is bad
    - She can’t commit if market is good
      - Sort of rent control (“fixed term” fixed?)
  - Incentives to keep the place up
    - Not your money (so rent bumped)
    - If a tear-down, LL wants to do bare minimum
Cap rate approach to valuation

\[ V = \frac{NOI}{(r-g)} \]

Cap rate = R-G. But what’s R, what’s G?

Current cap rates: Condos appx 2%, SF < 2% (!)
Cap rate components: \( V = \frac{\text{NOI}}{\text{Cap}} = \frac{\text{NOI}}{(R-G)} \)

- **R**: Riskless rate
  - How long will rates stay so low?
  - What is the “riskless” rate in China (does this matter anymore?)
- **R**: Risk+liquidity premium for Vancouver real estate
  - Needn’t be large for diversified global rich
  - For a local with a home considering a condo
    - Huge fraction of wealth
    - But a rent hedge for you and kids
      - To extent you’re committed to the region
- **G**: Future rental growth rate?
  - Not crazy that \( r-g \) could be 1% or so
  - But historically extremely unusual pricing
  - Policy risk?
  - Continued overseas+immigrant demand?
What you should never say

“I’m sick of paying the landlord. I’m going to buy and pay myself!”

- No
- As owner you pay
  - Interest on mortgage amount
  - Foregone return on equity that could have been invested
  - Maintenance
  - Property tax
- It is true that amortization of mortgage is paying yourself
- Capital gains are a negative cost
Two Cities
With Growing Demand
Where will prices rise more?
Metropolitan Dallas
Metropolitan San Francisco
How The World Is supposed to work

Price

Vancouver (Kits) [Dallas]

Winnipeg (Langley?) [Dallas]

Quantity
Drive to qualify + Elastic Metros had worst Price busts

In Flatland, which occupies the middle of the country, it’s easy to build houses. When the demand for houses rises, Flatland metropolitan areas, which don’t really have traditional downtowns, just sprawl some more. As a result, housing prices are basically determined by the cost of construction. In Flatland, a housing bubble can’t even get started.

But in the Zoned Zone, which lies along the coasts, a combination of high population density and land-use restrictions -- hence “zoned” -- makes it hard to build new houses. So when people become willing to spend more on houses, say because of a fall in mortgage rates, some houses get built, but the prices of existing houses also go up. And if people think that prices will continue to rise, they become willing to spend even more, driving prices still higher, and so on. In other words, the Zoned Zone is prone to housing bubbles.

And Zoned Zone housing prices, which have risen much faster than the national average, clearly point to a bubble.
Good news: in the long run economics works

But is this supply or demand? How can we tell? (CFR paper)
Not clear markets correct “Behavioral” errors
Nature: Absolute and progressive land loss
Humankind: Self-Inflicted Unaffordability

BANNED

SUBSIDIZED
Condo supply, in fact, is coming

Mattered in NYC recently.

Vancouver CMA Housing Starts, Completions, and Under Construction

http://housing-analysis.blogspot.ca
Price growth last 15 years
Detached Better Long run, ConDo Better Past Year
Where has rental growth been during price boom?

![Vacancy Rate vs Change in Rent](Source: CMHC Rms, code: https://github.com/mountainMath/cmhc)
My recent Vancouver data: quality-controlled?

EHT? Seasonality?
New tax/policy considerations

- Getting very hard to
  - Buy #Vanre
  - Not pay income tax in BC (you’re welcome!)
- This may impact higher end
- If you are 55+
  - DEFER Taxes
    - World’s greatest reverse mortgage
    - Especially if in 3M+ home
      - Get hit by new luxury surtax
- Condo supply may get a boost
  - Makes a lot of sense now to subdivide
  - Even if have to tolerate subdivided neighbor
Summary

● Buying a house is good and bad as insurance
  ○ Hedge rent expenditure
  ○ But capital gains risk and poor liquidity
● Special risks for assistant professors
  ○ Want to make bad states of the world palatable
    ■ No tenure, sell into recession very bad
  ○ Transaction costs make short holds unappealing
● Vancouver has a lot going for it
  ○ Compelling growth story in supply and demand
  ○ Hard to add single family. Condo?
● Tax, mortgage market, condo completion risks are real
**Time permitting: presales**

- Very common way to buy a new condo unit
- Some real risks
  - Timing of completion
  - Quality of construction
  - Bad behavior by developer if stressed for cash
- Interesting option to assign your contract
  - Typically for a fee
  - Not free money!
Genworth (TSE:MIC)

Stock market hates Canadian real estate risk
● Very low price/earnings ratio of 7.3
● vs RDN (29.5!?) MTG (13.8)

Yet the market loves Vancouver real estate
● Price earnings ratio of roughly 50