

# Aspects of Housing Choice

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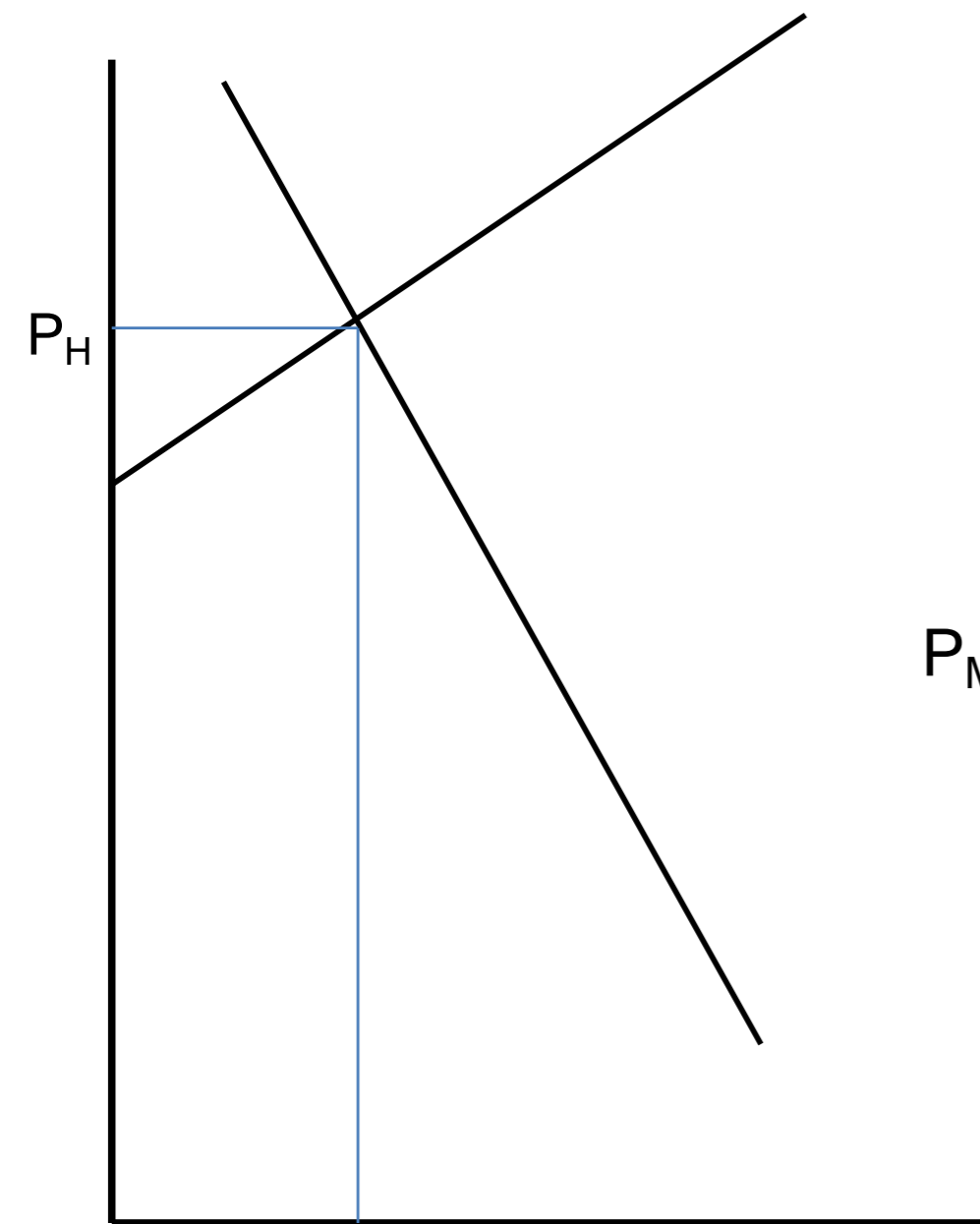
J. M. Pogodzinski  
Lecture 18

# Chapter 10

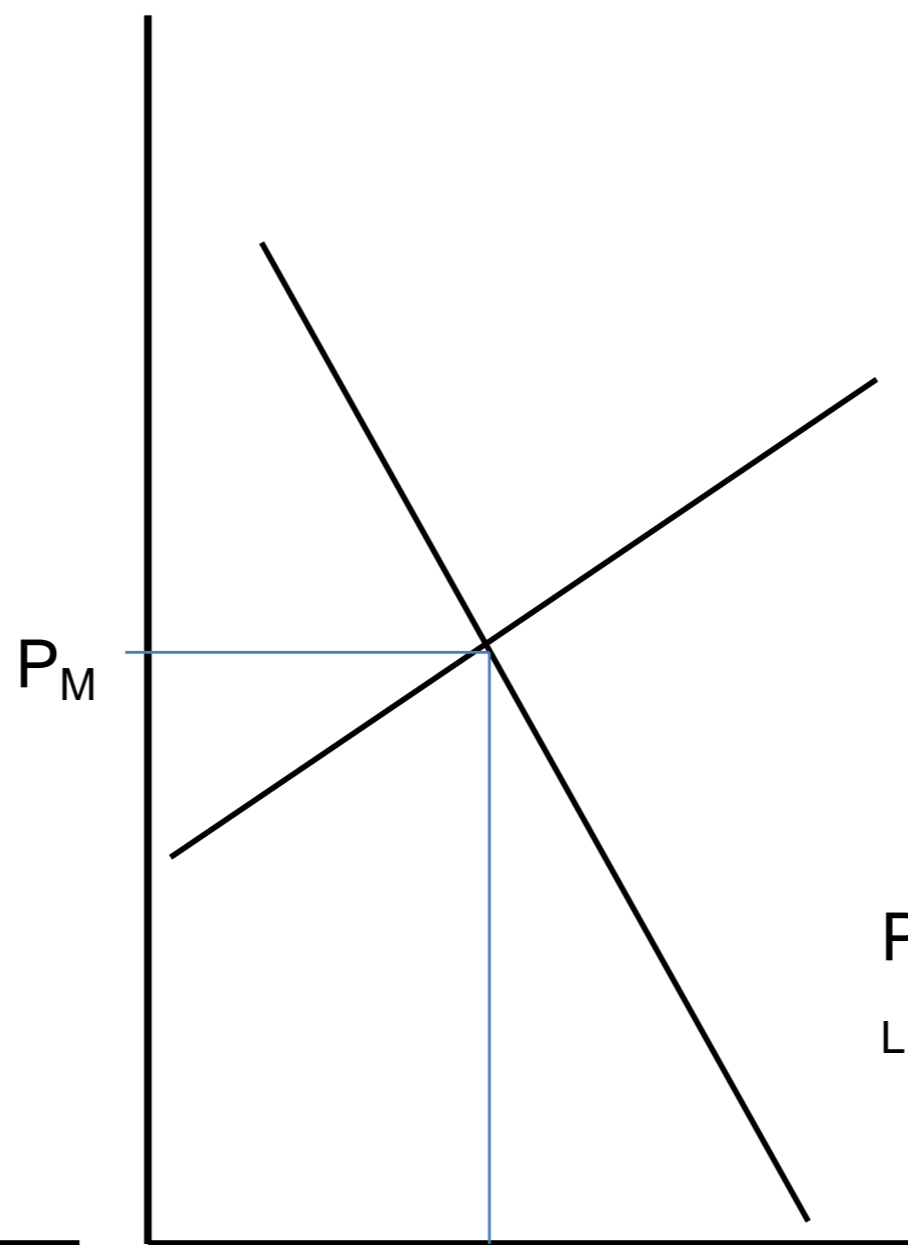
## Filtering Model of the Housing Market

- Fixed number of households, various income groups
- Cheaper to build new housing than to upgrade existing housing
- Housing deteriorates over time
- Demand for housing increases over time
- Implication: housing built primarily for higher income groups, filters down to lower income groups, lowest quality units demolished

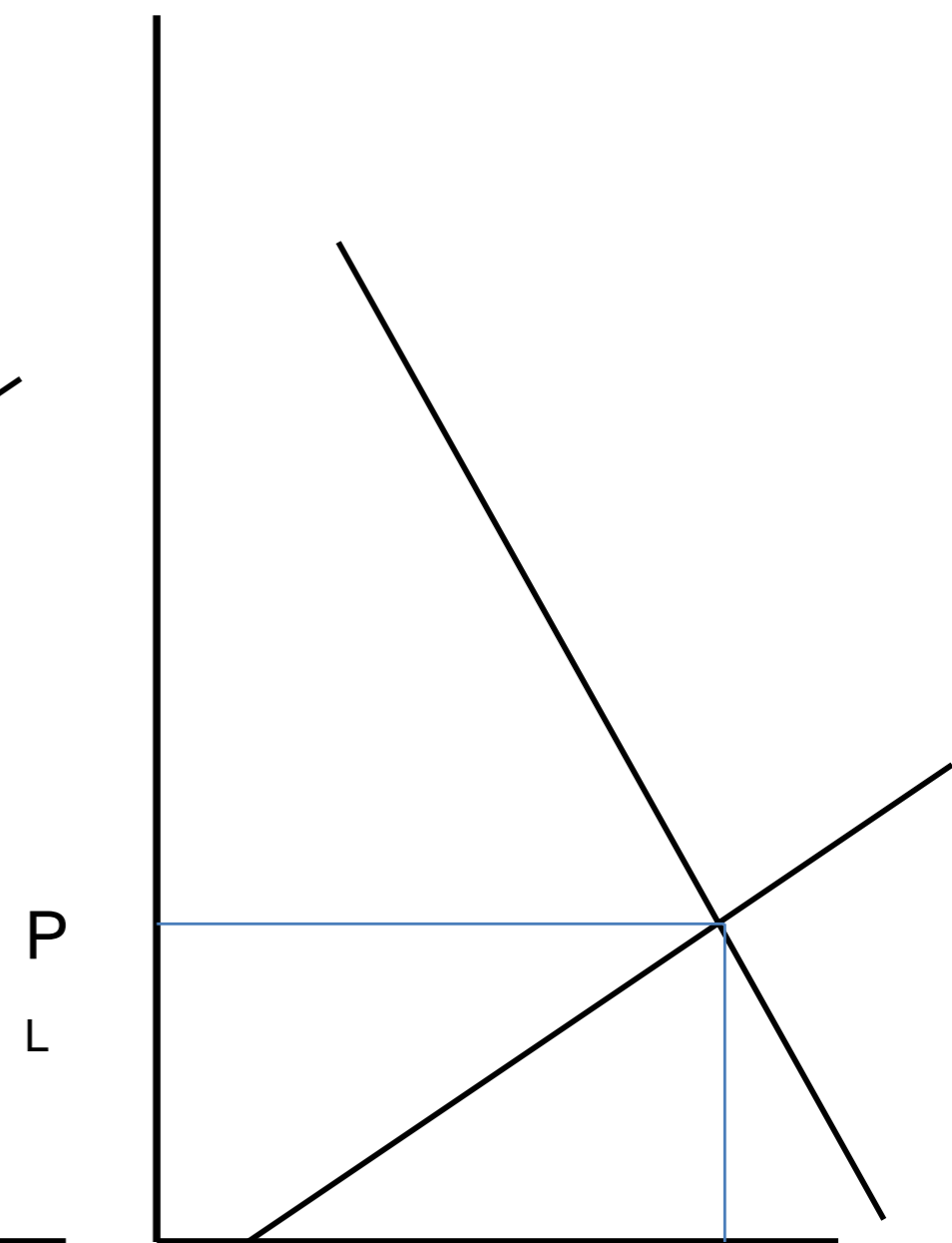
# Three Household Types (Price on all vertical axes)



H  
High-Quality Units



M  
Medium-Quality Units

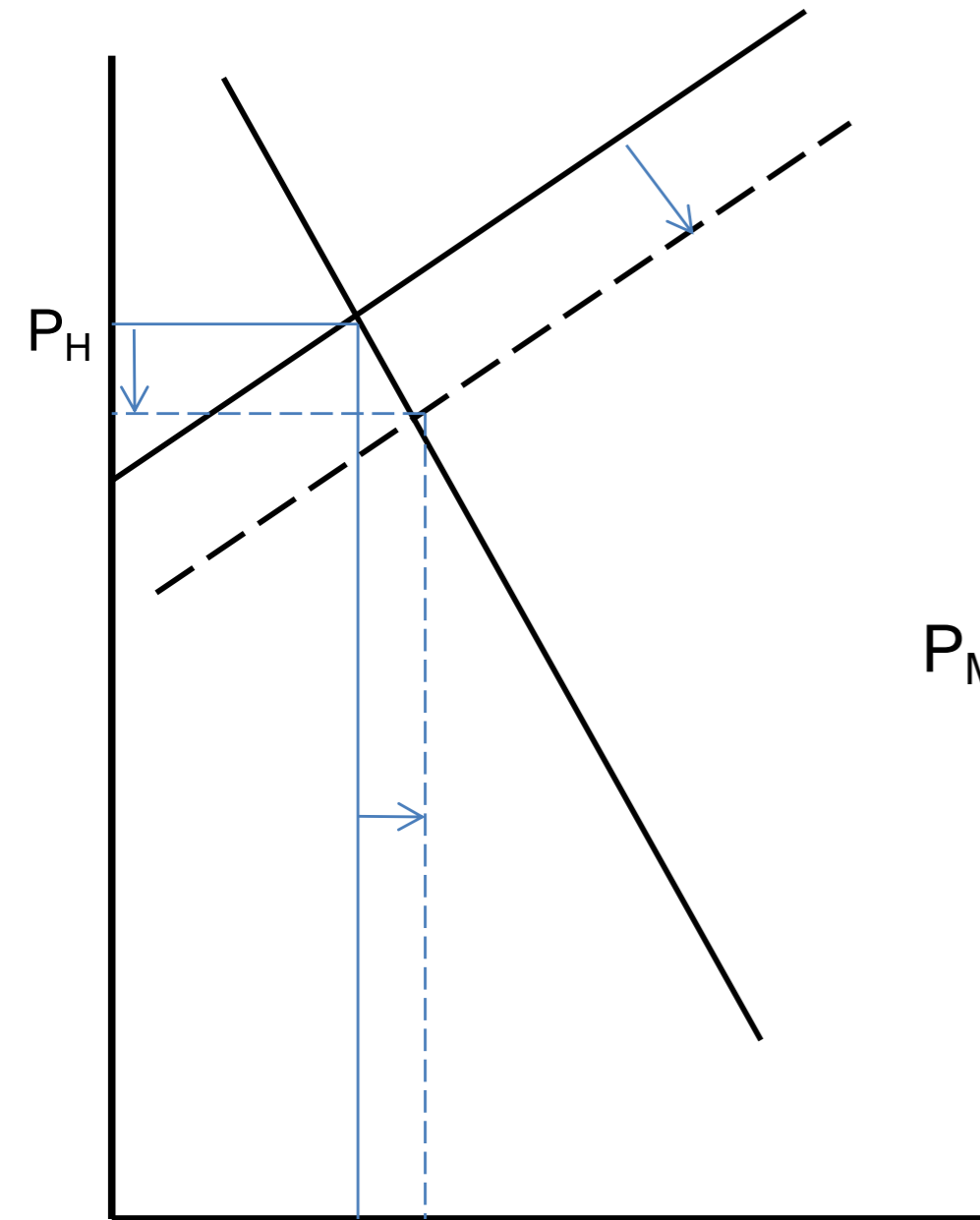


L  
Low-Quality Units

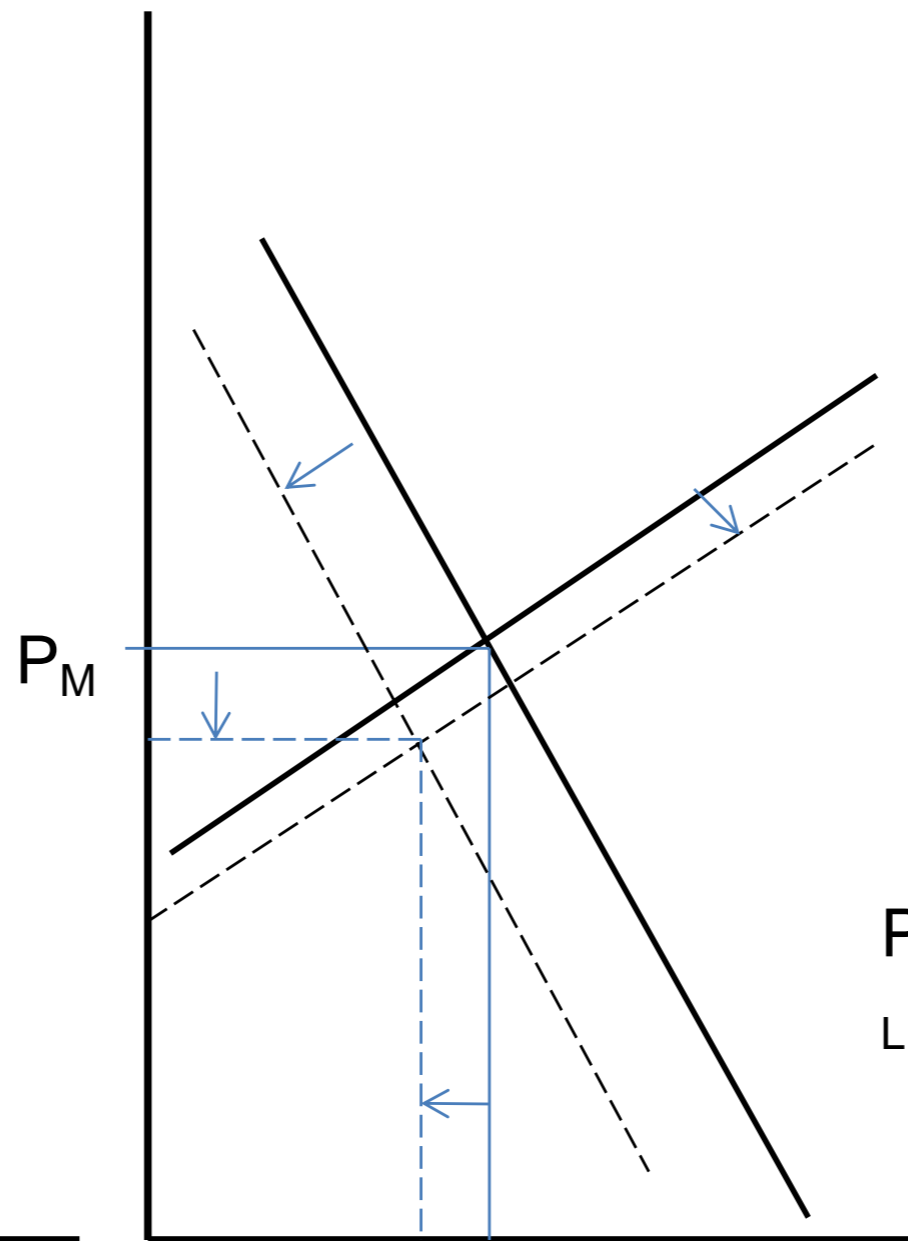
# How this Differs from the Book

- Supply curves have a slope because we are not distinguishing between short and long run
- Only analyzing medium to long term
- As a result, are not considering vacancies in low-quality submarket

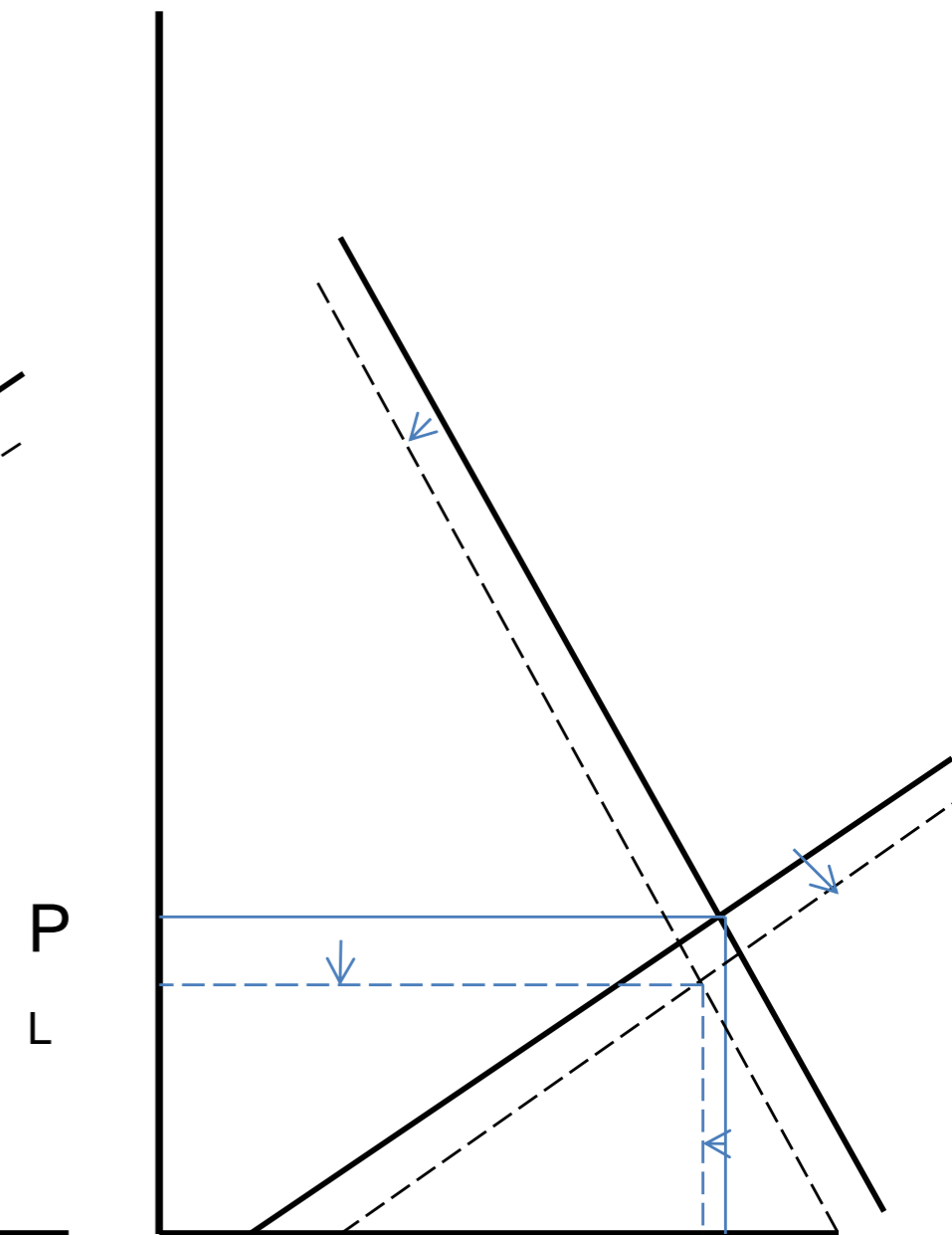
# Housing Construction Subsidies – Shift in the supply curve for *high-quality* units



H  
High-Quality Units



M  
Medium-Quality Units



L  
Low-Quality Units

# Results: Supply Subsidy for High-Quality Homes

1. More high-quality homes, lower price
2. Increase in supply of high-quality homes leads some medium-quality homeowners to move up the high-quality market, lowers demand for medium quality homes. Some homes filter from high to medium market. Lower demand and higher supply in medium market leads to fewer homes but lower price in medium-quality market.
3. Similar to (2) for low-quality market. Some of the lowest quality housing is demolished.

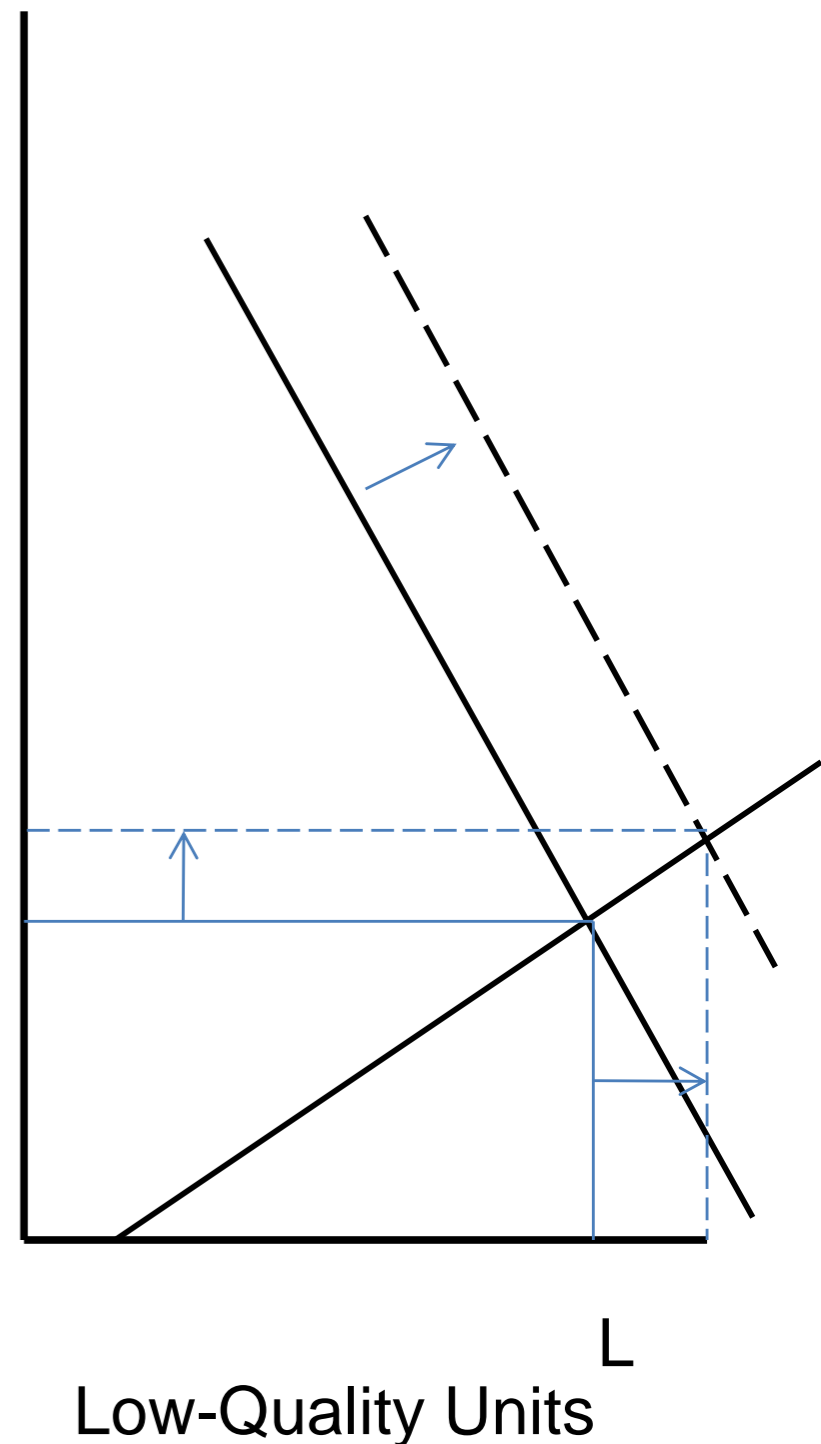
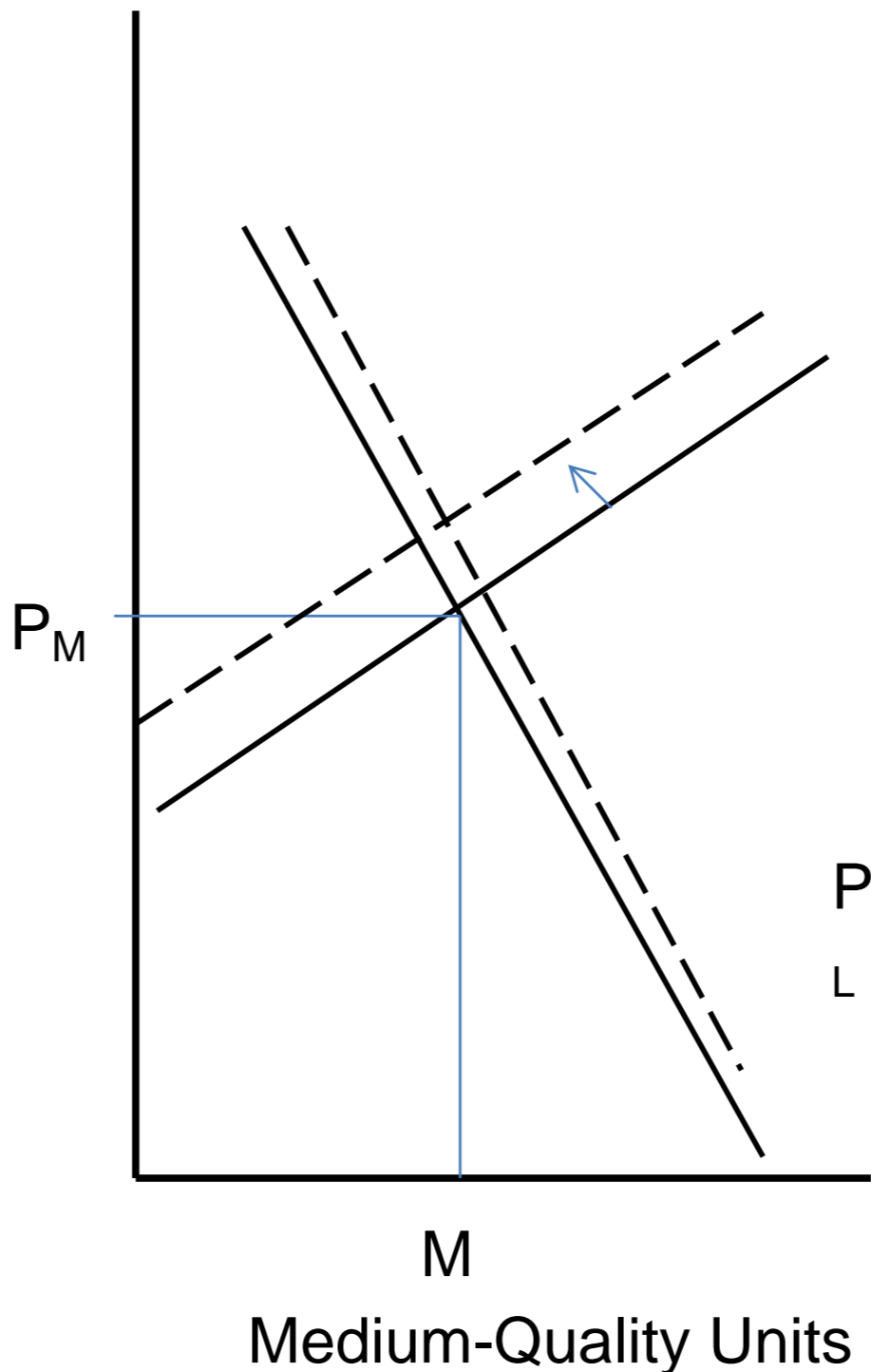
# Housing Demand Subsidies – Shift in the demand curve for *low-quality* units

Demand shifts out in M because P rose in Low market

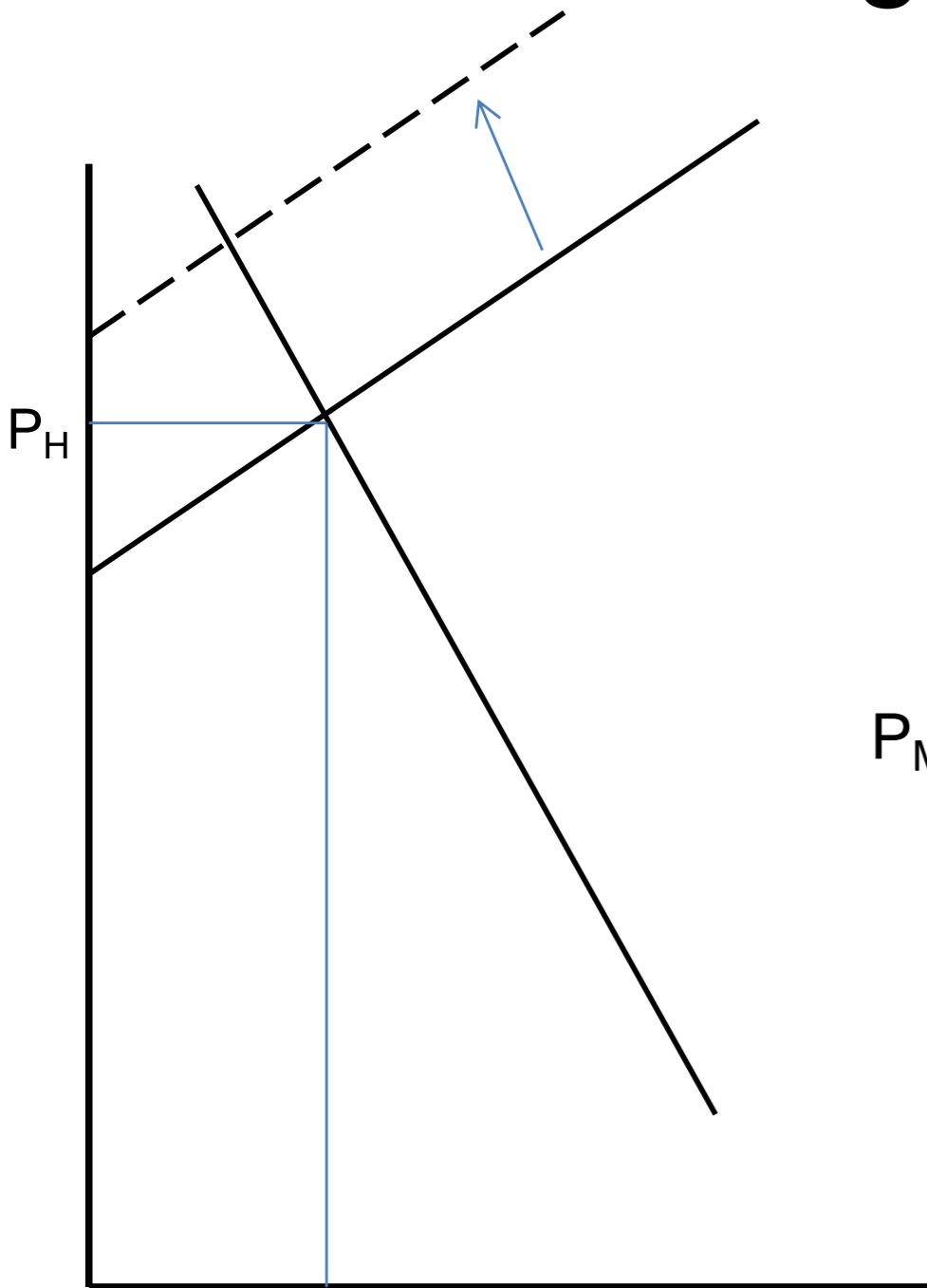
Supply falls (shifts left) in M as shift units to Low

Price must rise in Medium market

Q must fall in M because total number of household stays the same and Q has increased in L market

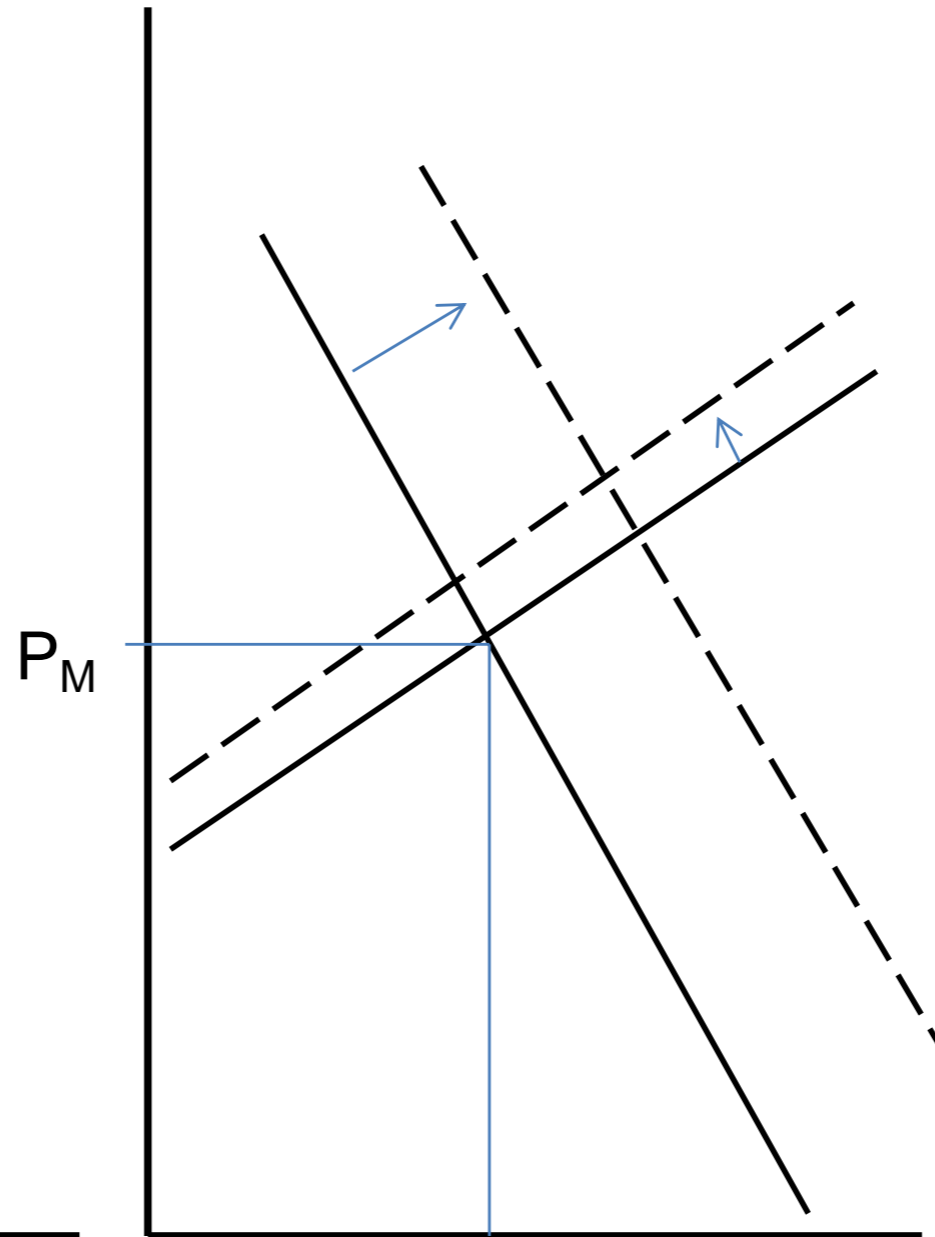


# Increase in Cost of New Construction in High-Quality Market



H

High-Quality Units



M

Medium-Quality Units

Direct effect is to reduce supply in high-quality market, raising price and lowering Q

Increase in price of new construction leads to higher demand for M homes.

Increase in price in H market reduces rate of filtering to M, lowers supply

Must have higher price in both markets

Q must rise in M market since it falls in H

# Housing Construction Subsidies – Directly build *low-quality* units

Direct effect is to shift supply curve to the right in the L market, lowering price and increasing quantity

As price falls in low market, demand falls in M market – some houses are demolished in L, others are upgraded for use in M

As price falls in L market, fewer homes are downgraded, increasing supply in M. Net effect is to have lower price and lower Q in M (Q must fall because Q went up in L market)

