Finance lectures
3 & 4: Subsidy options
• Demand side subsidy:
  – Increase household income (Lecture 4)
• Supply side subsidy:
  – Regulate rent
  – Subsidy to the landlord (Lectures 2 & 3)

Finance Lectures
3: Supply-side mechanisms
  3a: Options
  3b: Capital subsidies
  3c: Revenue subsidies
  3d: Reinvestment
  3e: Assessment

Principles
Rent income
  =
  Management & maintenance
  + long term repair
  + cost of capital
Principles
1) Affordable rent + subsidy = M&M + long term repair + cost of capital
2) Affordable rent = M&M + long term repair + subsidised cost of capital

SA 422 Housing Economics and Finance 2008/2009

Finance Lectures
3a: Supply-side mechanisms
Options

Rent regulation / control
- Existed in UK up to 1989
- Reintroduced in social sector 2001
- Landlord could choose to:
  - run at a loss (real / nominal)
  - reduce spend on management & maintenance
  - sell and exit the sector
- Re-introduced to the subsidised sector
Finance Lectures
3b: Supply-side mechanisms
Capital subsidies

Decrease the cost of capital
• Capital grant to reduce private investment
• Reduce interest rates
• Tax breaks on affordable housing activity

Grant calculation
Cost of providing a new home = private finance raised by landlord + capital subsidy
Income from providing the home = net rent, used to service private finance
Capital subsidy required = cost – amount of borrowing that can be supported by the rent
Borrowing against rent income

Value today of payment in future year
= payment / (1+ discount rate)^number of years

Receive £1,000 next year, 4.5% discount rate
Value today = £ (1000/(1.0455)) = £ 957

Receive £1,000 in 5 years, 4.5% discount rate
Value today = £ (1000/(1.045)^5 = £802

How much capital grant?

Assume net rent of £2,500 per year
Yr 1 NPV = £2,500 / 1.05 = £2,381
Yr 2 NPV = £2,500 / 1.05^2 = £2,268
Yr 3 NPV = £2,500 / 1.05^3 = £2,160
Yr 4 NPV = £2,500 / 1.05^4 = £2,057
Yr 5 NPV = £2,500 / 1.05^5 = £1,959
5 years’ rent therefore worth £10,824

How much capital grant?

Net present values of £2,500 per year
- 5 years £ 10,824
- 10 years £ 19,304
- 15 years £ 25,949
- 30 years £ 38,431

Infinite stream of payments
NPV = payment / discount rate = £2,500/.05 = £60,000
How much capital grant?

• Grant = capital cost – NPV rental income

• E.g. if capital cost = £125,000 and NPV taken over 30 years: Grant required = £125,000 - £38,400 = £86,600 (=69%)

Competitive grant system

• Surpluses from other properties
• Efficiency in management costs
• Innovation in procurement mechanisms
• Loss-leading share of grant programme

Similar approaches

• Sale/refinance of existing municipal stock
  Stock value = NPV income
  = NPV (rents – repair costs) (Lecture 3)
• Stream of tax credits can be capitalised within a similar model