

Employer sponsored health insurance, Part 1

**ECON 40447
Fall 2009**

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Introduction

- **Most health insurance in this country is provided by employers as a fringe benefit**
 - Function of the 'tax-preferred' nature of health insurance
- **Benefits**
 - Reduced problem of adverse selection
 - Encouraged shift to coverage
- **Costs**
 - Unequal tax system
 - Insurance is tied to work
 - Not all employers provide insurance

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This section of class

- **Outline some of the advantages and disadvantages of employer-sponsored health insurance**
- **How did we get this way?**
- **How does tax preferred status change the demand for insurance?**
- **What problems does it solve?**
- **What problems does it cause?**

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- **Will look at the implications of employer mandates – what will happen if we can try to require employers who currently do not provide health insurance to do so**

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Tax Treatment of Employer-Provided Health Insurance

- Income from your employer is taxable
- You take the income and spend it on goods
 - Spending is in after-tax dollars, not before tax
- Can you avoid taxes by having your employer provide you with goods?

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- Federal government has established some 'tax preferred' methods of compensation.
 - When you receive certain items, they are not taxed as income
- Two largest categories
 - Pension contributions
 - Health insurance
 - Has been the case since 1954
 - If college employee, tuition remission for your dependents
- Tax-preferred nature of HI reduces the cost
 - you purchase in before tax, not after tax dollars

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1st Insurance Plan

- Blue Cross, associated w. Baylor Univ
- Prepay 21 days of hospital care for \$6
- Born out of necessity
 - Depression, lots of unpaid hospital bills
 - Pre-paid plan designed to smooth income for hospitals
 - 10 years, enrollment increased from 1,300 to 3mil
- Established as tax-exempt organization, not insurance company – freed them from reserve requirements – expanded size

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delivery and 10 day post-stay were paid by BC – total cost \$60

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- **Physicians were not part of BC**
 - Feared intrusion into their work
- **2 events changed**
 - Growth of BC generated fear that hospitals would move into physician care
 - Thought that SS legislation in 30s would be a natural vehicle for national HI
- **Blue Shield established in 1939 – in CA**
 - Pre-paid health care plan for physician services
- **Success of BC/SH encouraged private insurance companies**

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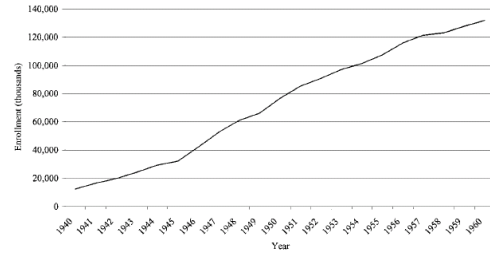


FIG. 1. Number of people enrolled in health insurance plans, 1940–1960. Source: *Source Book of Health Insurance Data, 1976–1977*.

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- **Many insurance plans offered through employee groups**
 - Reduce adverse selection
 - Lower admin costs
- **1942 Stabilization Act**
 - Wage hikes/cuts must be approved in advance by National War Labor Board
 - Designed to control inflation
 - Increasing payments for life insurance exempted
 - 1943 court ruling allowed firms to offer insurance instead of raises – not a taxable benefit

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- **1943 ruling created some confusion**
 - Applied to life insurance
- **Clarified in 1954 IRS ruling**
 - Health insurance was deductible expense for firm (as expense, treated same way as income)
 - Health insurance was not “income”
 - Established health insurance as tax-preferred compensation

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Fraction of Population Covered by Private Insurance

Year	Percent w/ Pvt Insurance
1950	6.7%
1960	50.6%
1970	68.3%
1980	78.1%
1990	73.1%
2000	72.3%

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Example: Impact of Tax preferred status

- \$1500 weekly earnings
- Tax at 30% marginal rate (state+federal+FICA+medicare)
- Suppose you can get insurance for \$100/week
- Implications of tax preferred status
- Key assumption: firm does not care how they compensate you. They only care about the total cost of employment

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- Firm is indifferent between paying you
 - \$1500/week in wages or
 - \$100/week in insurance, or \$1400 in compensation
- Both of these are expenses for the firm and treated equally as costs
- What is the net after-tax income when health insurance is tax preferred and provided by the employer?

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- | | |
|---|--|
| <ul style="list-style-type: none"> • Without tax preferred status • Receive \$1500 • <u>Minus taxes \$450</u> • After tax \$1050 • <u>Insurance \$100</u> • Net income \$ 950 | <ul style="list-style-type: none"> • With tax preferred status: • firm gives you \$100 worth of insurance and \$1400 in income • Receive \$1400 • <u>Minus taxes \$420</u> • Net income \$980 |
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- You make \$30/week on the deal
- If the firm gives you money to buy insurance, the govt takes 30% away before you can spend it.
- To get you \$100 cash to buy an insurance policy, a firm would have to pay you \$142.85
 - Pay you \$142.85
 - After tax, $\$142.85 \cdot 0.7 = \100
 - Notice that $\$42.85 \cdot 0.7 = \30

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Another example: What is after tax cost of HI

- A family w/ \$70,000 in income
- 36.5% marginal tax rate
 - 25% federal
 - 3.5% state (Indiana)
 - ~8% Social Security and Medicare
- Want to purchase \$12,000 policy in AFTER TAX DOLLARS

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Without tax advantage:

- Receive \$18,897 in income
- Pay 36.5% or \$6,897 in taxes
- \$12,000 left over for health insurance
- Net benefit of tax deduction is \$6,897

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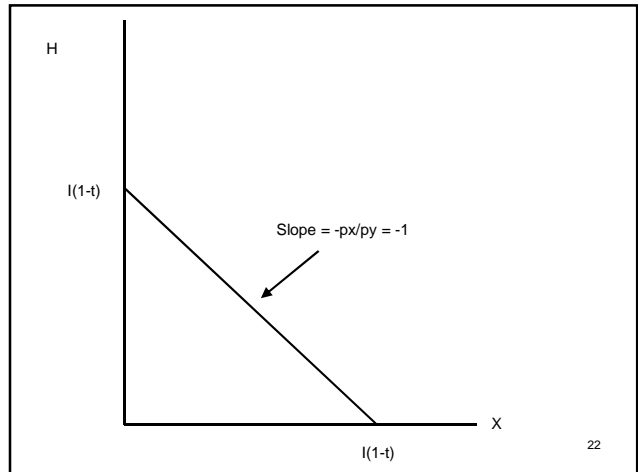
Modeling the budgets

- Firm willing to pay workers I dollars in compensation
- Workers faces a marginal tax rate of t percent
- Worker can spend after tax dollars on
 - All other goods (X), with a price of \$1
 - Health insurance (H), with a price of \$1
- Budget constraint
 - $X + H = I(1-t)$

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- Most you can spend on H is $I(1-t)$
- Most you can spend on X is $I(1-t)$
- If a consumer wants another dollar in health insurance, must give up \$1 in other goods
- Slope of budget constraint is therefore -1
- Now consider a situation where health care is tax preferred

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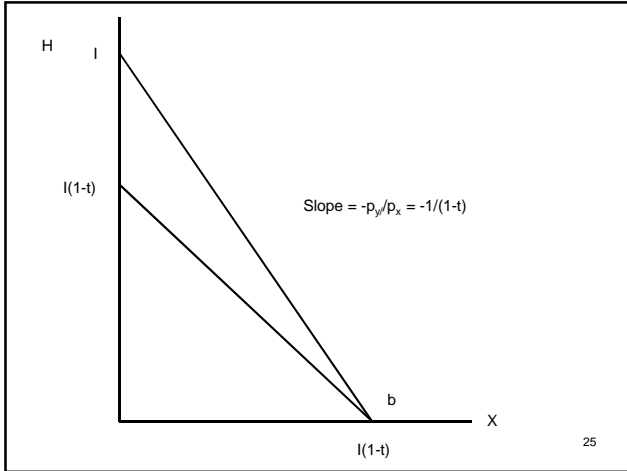
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- Firm will pay a total of I dollars in compensation
 - Can be any combination of salary (S) and health insurance, so long as it sums to I
 - Salary is taxed at a rate of t , can be used to purchase X
- How much X can you get?
 - $I = H + S$
 - $X = S(1-t)$, so $S = X/(1-t)$
 - $I = H + X/(1-t)$

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- Suppose you spend all your money on X ,
 - $I = H + X/(1-t)$
 - $X = I(1-t)$
- Suppose you spend all your money on H
 - $I = H$
- Notice that the budget constraint has now rotated about point b
- What is the slope of the budget constraint?
 - $-1/(1-t)$

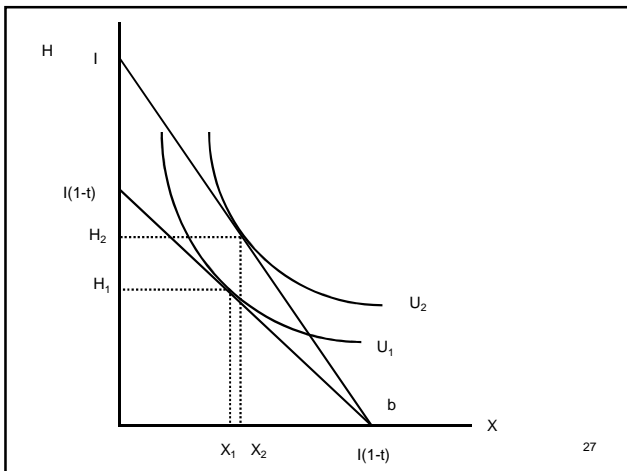
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- Recall what the slope of the budget constraint equals, $-P_x/P_y$ or, what you need to give up in Y to get 1 more unit in X
 - In this case, how much H you have to give up to get one more \$1 in X
- Before, tradeoff was one for one
- Now, to get \$1 in X, it costs you $1/(1-t)$ in H
 - Suppose $t=0.33$
 - $1/(1-t) = \$1.5$. To get \$1 in X, need to give up \$1.5 in H
 - To get \$1 in X, receive \$1.5 in income, pay \$0.50 in taxes, receive \$1 in X
 - Price of X has risen relative to H, or, the price of health care has fallen relative to other goods.

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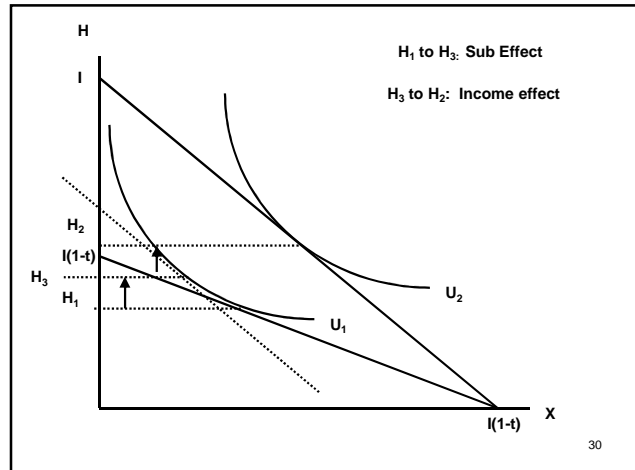
Income and sub effects (Moving from taxable to tax preferred)

- w/ tax preferred status, price of insurance falls relative to other goods
 - Income effects encourages more use
 - Substitution effect encourages more use
 - Unambiguous increase in demand for health insurance
- What about other goods
 - Sub. Effect, should decline
 - Income effect, should increase
 - Net effect, uncertain

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- On graph – draw line parallel to new budget constrain, tangent to old indifference curve
- Movement along old indifference curve is substitution effect
 - H_1 to H_3 (+)
 - X_1 to X_3 (-)
- Movement between two parallel budgets is income effect
 - H_3 to H_2 (+)
 - X_3 to X_2 (+)

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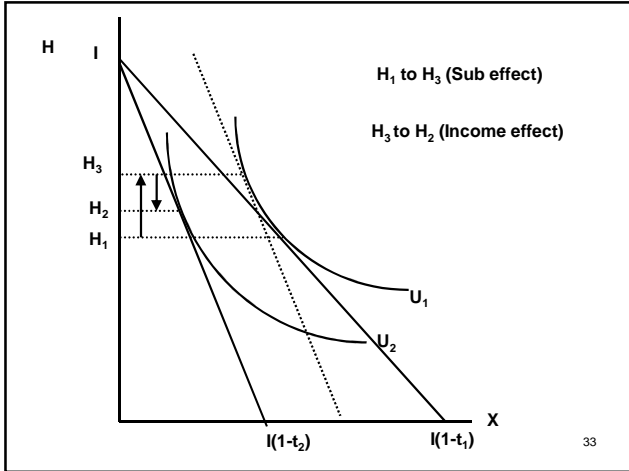
New Scenario

- Suppose that EPHI is already tax-preferred
- Now, the tax rate increases from t_1 to t_2
- What is the likely response on the part of consumers?
- What has happened to the price of H?
- What has happened to take-home income?

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- $1/(1-t)$ is the cost of obtaining \$1 in X
 - If taxes increase from 25% to 50%
 - price of X has increased from \$1.33 to \$2
 - Therefore, price of H has fallen
 - Substitution effect says – consume less
- With rising tax rates, take home pay declines
 - Have less income to spend on all goods
 - Health insurance is a normal good
 - Income effects says H should decline

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What is going on with X

- Price of X relative to H has increased, so demand for X should fall (Sub effect)
- Taxes take a bigger bite out of income, purchasing power has declined, X is normal good, demand for X should fall (income effect)

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