# Organization of Health Insurance Markets

# In Canada, can characterize healthcare as

- Universal healthcare
  - Most medical services and tests
  - Hospital stays in ward rooms

- Supplemental health insurance
  - Prescription drugs
  - Some medical services
     not covered by universal
     healthcare (e.g., vision
     care and physiotherapy)
  - Semi-private or private hospital rooms

- Universal healthcare is government provided, and covers most services provided by physicians and hospitals as well as many diagnostic tests.
- Some diagnostic tests are not covered if they are not considered essential
  - e.g. Heidelberg Retinal Tomograph (HRT) is a 3-D image of the eye, in some provinces it is covered, but in Ontario it is not. The cost can vary, from clinic to clinic but ranges from \$100 to \$150.

- Universal healthcare is not as universal as it used to be, e.g., in Ontario vision exams provided by optometrists, physiotherapy and chiropractic services are no longer part of universal healthcare.
- For services and tests not covered under universal healthcare, the patient must pay for the services, either directly or using supplemental health insurance.

- Supplemental health insurance is provided by your employer as part of their benefits package. Alternatively, self-employed persons or persons without employer provided supplemental insurance can purchase it from a private insurance company (e.g., Manulife Financial, Green Sheild)
- If you don't have supplemental health insurance in Canada then you have to pay for services not covered by universal health out of your pocket.

### U.S. Perspective

- In the U.S., for working age persons there is no distinction between the two columns, on the first slide. There is only private insurance provided by an employer (or purchased for an individual).
  - For those aged 65 or older there is a government provided health insurance program called Medicare;
     For those collecting social assistance there is a government provided health insurance called
     Medicaid. We will discuss this more later in the term.

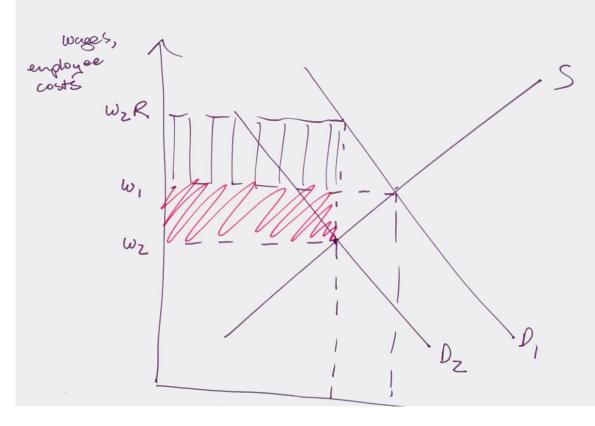
- From an economic perspective the key issue is who pays for this employer-provided insurance.
   The employer or the worker, via lower wages.
- The issue is relevant to all programs that are provided by governments (e.g., public pension plans, employment insurance) all countries, where an employer pays a premium of a percentage of payroll.
- Can be answered by looking at the market for labor (labor demand and labor supply)

#### Labor Market

- We assume that a lower market money wage rate leads an employer to hire more workers for two reasons:
  - the employer can substitute labor for more expensive equipment or resources
  - the employer can sell more products at lower prices, hence requiring more workers
- Employers will hire workers as long as the incremental (marginal) revenue from the goods those workers produce exceeds the per hour wage.

- Assuming that workers don't value the benefit means that the supply curve does not shift out
  - This makes it easier to work out the shares of the new wage costs

#### Basic Analysis - Assuming No Benefit to Worker



New 8 in Total wage costs:



enployers fortion workers portion

#### **Explanation of Previous Diagram**

- We start at the initial equilibrium and there is payroll tax/premium that employer has to pay
- The payroll tax can be viewed as an increase in cost of using labor inputs
  - If the firm is a profit maximizing/cost minimizer than since the cost of using labor inputs has increased it will shift to cheaper inputs (assuming substitution is possible); which means that the demand for labor decreases.

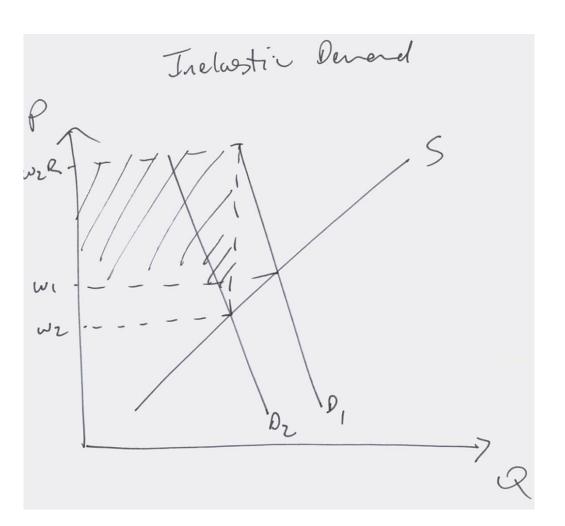
 At new equilibrium point, the new wage and employment level, the new market wage is w<sub>2</sub>; the total costs of using labor input will be the wages plus the payroll tax, which will be Rw<sub>2</sub>

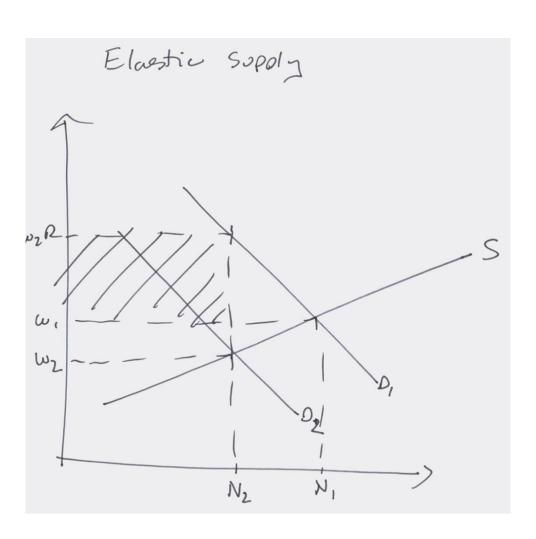
- Tracing the new employment level up to the original demand curve will give you Rw<sub>2</sub>
- The rectangle between and can be split into two pieces by the old equilibrium wage, w<sub>1</sub>, the piece above w<sub>1</sub> is what the employer pays, the worker's share would be piece below w<sub>1</sub>
- So the employer doesn't pay for the tax/premium entirely they can push some of the cost onto to the worker.

- What effects the size of the employer or worker portion?
  - The elasticity of the demand or supply curve

### The Employer's Portion is Bigger When

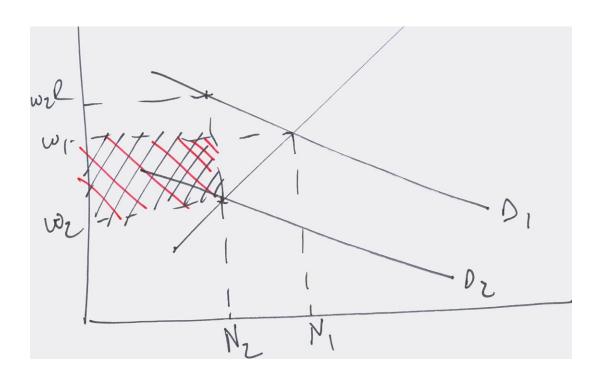
- Demand is Inelastic
- Supply is Elastic

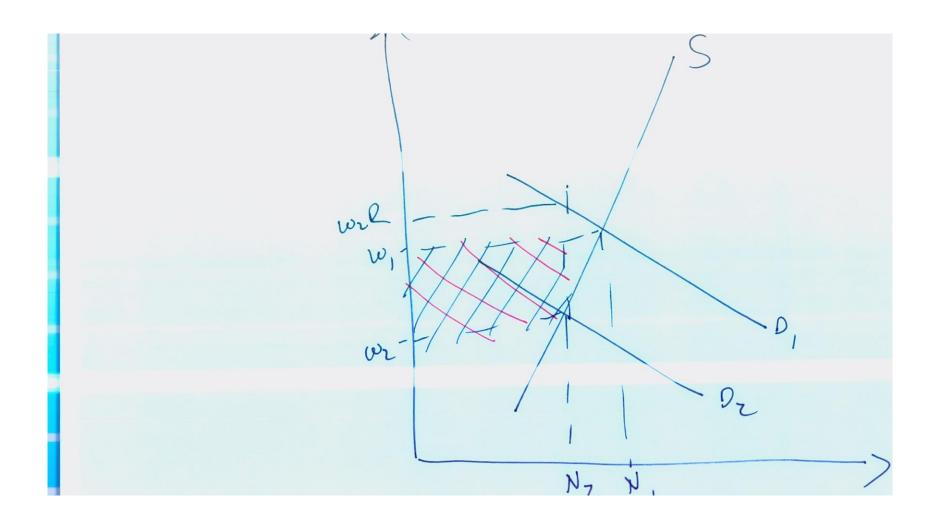




#### The Worker's Portion is Larger with

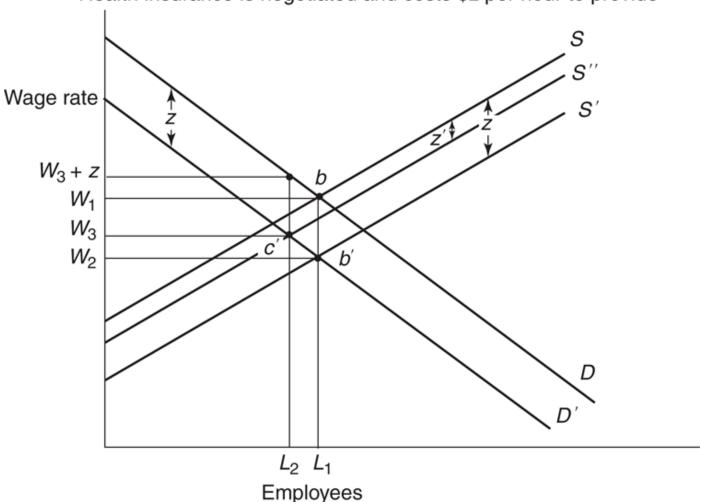
- Elastic Demand
- Inelastic Supply





## Incidence Analysis assuming

# workers value henefits Health insurance is negotiated and costs \$z per hour to provide



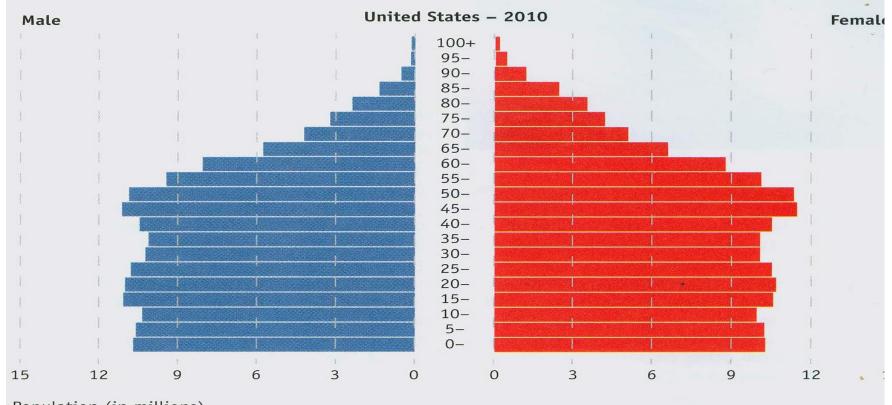
#### Gladwell Article

- Looks at employer provided health insurance and pensions in the US and whether it is sustainable
- Historical perspective it offers is different from textbook
- Unions argued for universal pension plans not employer specific plans since they offered better risk pooling

### Key Idea In Gladwell

- Dependency Ratio
  - Ratio of number of non-workers to the number of workers, for example
    - 1 to 5 is great
    - 1 to 2.5 is ok
    - 1 to 1 is bad
- Better risk pooling when more workers than non-workers

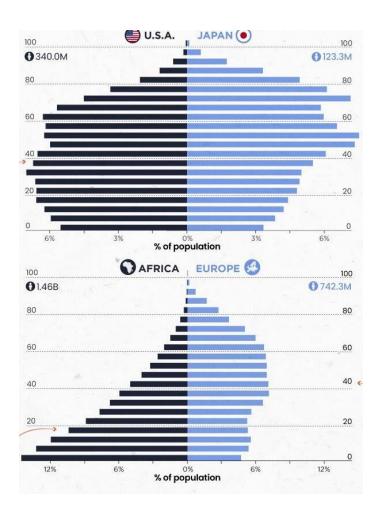
# Considering Dependency Ratios from the Perspective of the Population Pyramid



Population (in millions)

Figure 1. The 'classic' population pyramid, showing age distribution in the USA (2010). Age is grouped at 5-year intervals, such as 0-4, 5-9, etc.

# Some Comparisons of Age Structures



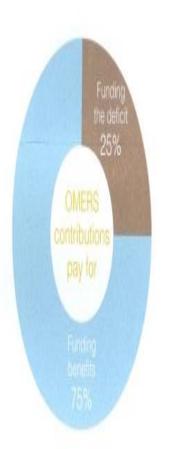
- USA vs Japan, note
   Japan has much fewer
   young people than the
   US
- Africa vs Europe, note
   Africa has a lot of young
   people; in Europe age
   structure is much more
   uniform, but number of
   young is somewhat low

# An Example of Dependency Ratios: OMERS pension plan



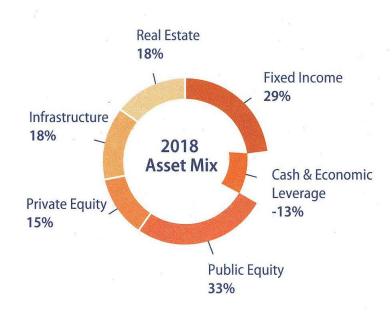
### Plan Funding

The Plan's funding deficit at the end of 2013 stands at \$8.6 billion, down from \$9.9 billion a year earlier. Measures are in place to help reduce the deficit. In 2013, the Sponsors Corporation (SC) acknowledged that contribution rates are at an unprecedented high and its ability to further increase contribution rates is limited. It has begun exploring benefit reduction options and identifying events that would indicate when Plan changes are needed. Options are reviewed every year through the Specified Plan Change process.

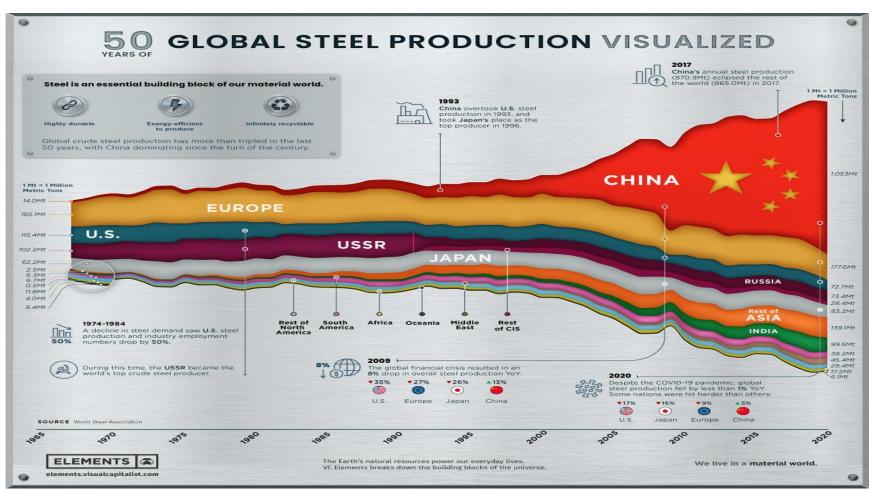


# How Pension Plans and Institutional Investors can adapt

Infrastructure, private equity and real estate extended their long track record of strong returns, which, along with positive returns in our fixed income portfolio, buffered the impact of drawdowns in equity markets.



# Gladwell's Focus on U.S. Steel Industry



- Gladwell writes about restructuring in the US steel industry, where the number of workers fell but the number of retirees and beneficiaries did not
  - Leads to disaster