

Basic Economics I.Q. Test

1. Assume you receive a 5 percent pay raise and you are not fearful of losing your job. You have been contemplating the purchase of a new car. Now, with interest rates at current levels and the pay raise, the monthly payment finally appears to be affordable. What additional factor(s) should you consider before deciding whether or not to buy this car?

Affordability is *not* defined by the number of \$

nominal values: dollar values without adjustment for inflation – these can be distorted by inflation

real values: control for changes in purchasing power caused by inflation

real income - the purchasing power of income –defines your ability to afford goods and standard of living

Q: is real income now higher?

A: only if the pay raise *exceeds* the rate of inflation

% change real income ~ % change nominal income - rate of inflation

5% pay raise = nominal income increase
as long as inflation is *less* than 5%, real income will have risen and you are more able to afford the car

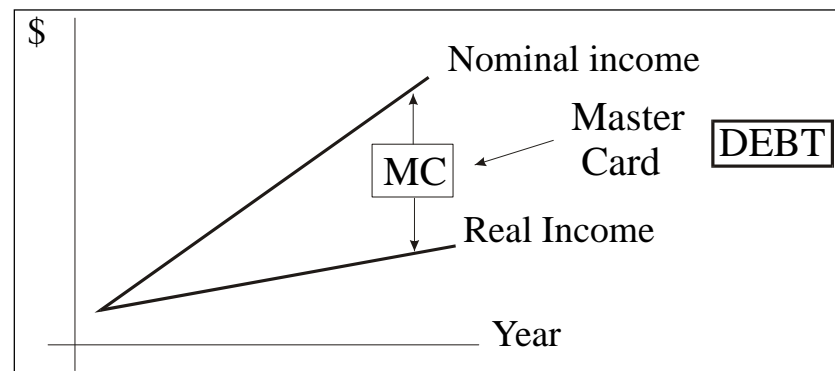
The combination of (say) 3% inflation and a 5% pay raise results in a real income increase of only 2%

A pay raise does *not* necessarily increase your ability to afford goods - pay must grow faster than inflation AND *when inflation is accelerating, to preserve real income, pay raises must be larger and larger in \$*

-generally this is difficult to attain if you remain with your current employer

Inflation and slow real income growth have brought about several important changes:

- both spouses often have to work
- persons must change employers or occupations
- consider cost of living when decide where to work
(use the Salary Calculator link on syllabus)



DEBT= claim on future income and spending
-slowed economic growth during the early 1990s

3. How much higher are mortgage interest rates today than the rates your parents paid?

-Real interest rates should be used to answer this

Today, mortgage rates are about 7% and inflation is around 3% which makes *real* mortgage rate 4%

-this is not terribly different than rates in the 1960s

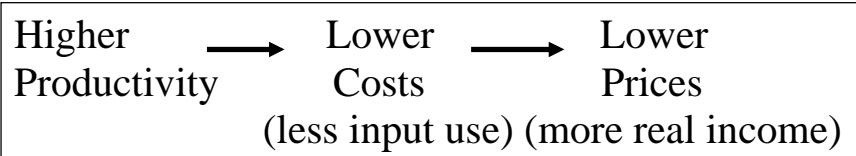
4. What does the term “productivity” refer to? Give an example of how this affects you.

Productivity is the ratio of output to inputs used to generate that production

-ex: output per man-hour or output per worker

if productivity is “high,” firms can get a great deal of output from a given amount of inputs

-this lowers production costs and allows prices to fall



BUT – the reduced input use generally *displaces labor*
-this is good for firms (less labor, lower cost) but bad for the economy if those who lose their jobs lack marketable skills (unemployment)

Productivity rises through:

-modernization

-larger factories and mass production

-higher labor productivity

-training

-management methods

labor productivity is critical with regional and international competition

- firms need greater production flexibility

In today’s low inflation climate, with much foreign competition, firms are far less able to raise price as a means of increasing profit than in the past

Q: How, then, can firms raise profit?

A: By lowering costs - through productivity gains

-Training

-Better management techniques

-layoffs (“downsizing” or “re-engineering”)

These layoffs have generally been:

PERMANENT - jobs are eliminated – workers cannot return to them when the economy improves

WHITE COLLAR – many mid-level managers have lost their jobs

HORIZONTAL MANAGEMENT

-fewer managers, closer contact between workers and managers

-this allows greater production flexibility

-gives workers more input into production methods

-think of this as a technological improvement in management methods – it too is labor saving

Combined with layoffs, horizontal management has caused many firms to have *permanently smaller labor forces*.

-Firms must constantly re-train and upskill their workers to keep up with production technology in their industry

Competition, technology, low-inflation and horizontal management have caused firms to rely far more productivity improvement. Results:

-firms often use **OUTSOURCING** – sending work out to other firms who specialize in certain functions

-there is a far greater use of temporary employees (“temps”) and part-time employees who often do not get fringe benefits

-greater skill-mismatches – instances where persons who are unemployed, *even if educated*, lack the specific skills demanded by expanding firms

Q: How will *you* find a place in the world when you graduate? What will be your *niche*?

5. What is the inflation rate? Explain how a falling rate can be bad for an economy.

Inflation rate: the percent change in the general price level – measured using a price index such as the CPI

inflation: *continued* increases in the general price level

inflationary: one-time or non-continuous increases in the price level – result of factors like higher input costs

Q: How do we measure the price level?

A: Use a price index – measures the average price level

assume two goods, X and Y with prices P_x and P_y

average price = $(P_x + P_y)/2 = (1/2)P_x + (1/2)P_y$

this formula assumes all prices are equally important - each has a “weight” of $1/2$ here

-it would be better to assign the prices of goods we buy a great deal of greater weights

the Consumer Price Index (CPI) uses quantities bought (Q) as weights:

$P_x Q_x + P_y Q_y =$ total expenditures on X and Y

The problem then becomes whose Q's do we utilize?
This entails determining: (i) which group(s) of consumers to track; and (ii) which time period for prices do we use.

- For price indexes, there is always the current period and the comparison period called the **BASE YEAR** we compare purchasing power to

For the CPI: Who? Urban wage and salary earners.

When? 1982 – 1984 base period

- very “dated” spending weights

Generally, when the price level rises, CPI *overstates* inflation, this makes **cost of living adjustments** for wage contracts and programs like Social Security too large

- to lower *future* Social Security benefits, the government has tried to update the base year or to subtract some arbitrary percentage, like 1.1% (Boskin Group)
- this would lower both future government spending and future budget deficits – making it easier to balance the federal budget
- this will be bad for retirees as their future benefits will be lower and rise by less each year

6. Are “high” hourly wages a disincentive to firms wishing to hire more workers?

The general presumption is that “high” wages mean that labor is expensive so fewer workers will be hired

Q: Is the wage rate the correct measure of the cost of labor to a firm?

A: **NO!** It is necessary to view both wages and labor productivity to determine if labor is expensive

- the correct measure of labor cost is unit labor cost:

$$\text{ULC} = \text{Wage/Productivity}$$

If wages are “high” and so is productivity, then unit labor costs can be “low” – inexpensive labor

This matters a great deal for international trade

- US firms with “high” wages (relative to other countries) and “low” productivity can't compete
- These firms tend to have little **VALUE ADDED** (little product differentiation) and low-skill jobs
- Examples: textile and apparel assembly

US firms with “high” wages and “high” productivity will have low unit labor costs and can be competitive
- these are high value added products

7. What is a recession? What are some ways a recession can affect you?

Recession: two or more consecutive quarters where real GDP (output) is falling

- declining output or negative economic growth for at least six consecutive months

How can a recession hurt you or your family?

Job Loss: either layoffs or having hours cut back

- both of these pressure you to reduce spending
- in the aggregate, this causes reduced spending, slower wage growth, and slower income growth

Plant Closings

Falling Property Values

- in areas particularly hard hit, the slower economy can produce a glut of housing as people try to sell their homes – this lowers home prices

YOUR CHOICE OF WHICH INDUSTRY TO TAKE A JOB IN IS RELATED TO THIS

- if you take a job in a highly “cyclical” industry, one highly sensitive to changes in the economy, as last hired, you will likely be among the first to be laid off if a recession hits soon after taking job

TRADEOFF: job security and less pay in a non-cyclical industry vs. higher pay in cyclical industries

8. What is the rationality behind pollution? In other words, why do some firms find it beneficial to pollute?

Rationality: if the benefits of an activity exceed its costs, expect that activity to occur

Air, rivers, and oceans are **common property resources**
- everyone owns these, so nobody can claim ownership and charge a price for their use

- Firms view these as *free* resources:
- The **private cost** of these, the cost to firms, is ZERO, so firms have no incentive to economize on their use
- The **social cost**, the cost to society, can be very high

PROBLEM: without ownership, private cost cannot be brought in line with social cost

- this is **MARKET FAILURE**
- firms overutilize these resources relative to what is best for society and produce too much

SOLUTION: government can claim ownership

- it can charge a price as a tax or fee or limit the amount of pollution allowed
- this brings private cost in line with social cost

Through the 1990s to today, the production declines that result have been highly politicized (ex: Ocean State Steel)

Q: should we allow these jobs to be lost?