



Chapter 14

Reading the Economic News

Thought Question 1:



The Conference Board, a not-for profit organization, produces a **composite index of leading economic indicators** as well as one of **coincident and lagging economic indicators**. These are supposed to “*indicate*” the status of the economy.

What do you think the terms *leading*, *coincident*, and *lagging* mean in this context?

Thought Question 2:



Suppose you wanted to measure the yearly change in the “**cost of living**” for a college student living in the dorms for the past 4 years.

How would you do it?

Thought Question 3:



Suppose you were told that the price of a certain product, measured in 1984 dollars, has not risen.

What do you think is meant by **“measured in 1984 dollars”**?

Thought Question 4:



How do you think governments determine the “**rate of inflation**”?

14.1 Cost of Living: The Consumer Price Index



CPI:

- Measures change in cost of a “market basket” of goods and services that a typical consumer is likely to purchase.
- Cost is measured in base period and subsequent periods.
- $CPI = \text{comparison of current cost with base period cost.}$
- Best available measure of changes in cost of living in U.S., however ...

*Both the CPI and a cost-of-living index would reflect changes in the prices of goods and services, such as food and clothing, that are directly purchased in the marketplace; but a **complete cost-of-living index would go beyond this** to also take into account changes in other governmental or environmental factors that affect consumers' well-being.
(U.S. Dept. of Labor, 1998, p. 3)*

Price Index Numbers



Price index number measures prices at one time period relative to another time period, usually as a percentage.

Three components to define a price index number:

- 1. The base year or time period**
- 2. The list of goods and services to be included**
- 3. How to weight the particular goods and services**

General formula:

$$\text{price index number} = (\text{current cost}/\text{base time period cost}) \times 100$$

where “cost” is the weighted cost of listed goods and services, determined by relative quantities of each item purchased during the base period.

Example: A College Index Number

Graduating senior wanted to determine by how much the cost of attending college had increased for each of 4 years.

1. Use her first year as a base.
2. Include yearly tuition and fees, yearly cost of room/board, and yearly average cost of books and related materials.
3. Weight everything equally because the typical student would be required to “buy” one of each category per year.

college index number = (current year total/first year total) \times 100

Year	Tuition	Room and Board	Books	Total	College Index
First	\$3,000	\$4,900	\$700	\$8,600	100
Sophomore	\$3,200	\$5,200	\$720	\$9,120	$(9,120/8,600) \times 100 = 106$
Junior	\$3,500	\$5,400	\$750	\$9,650	$(9,650/8,600) \times 100 = 112$
Senior	\$4,000	\$5,600	\$800	\$10,400	$(10,400/8,600) \times 100 = 121$

Senior index = 121 \Rightarrow increased 21% since started college.

The Components of the CPI

1. The Base Year (or Years)

Original base year = 1913.

Changes periodically so index not too large.

Current base years = 1982-1984.

2. The Goods and Services Included

Also changes periodically.

8 major categories: Food and beverage, Housing, Apparel, Transportation, Medical care, Recreation, Education and communication (added in 1998), and Other goods/services.

3. Relative Quantities of Particular Goods and Services

In December 2002: Food and beverage (15.6%), Housing (40.9%), Apparel (4.2%), Transportation (17.3%), Medical care (6.0%), Recreation (5.9%), Education and communication (5.8%), and Other goods/services (4.3%)

Obtaining the Data for the CPI



Each month ...

- sampling occurs at about 23,000 retail and service establishments,
- in 87 urban areas,
- prices measured on about 80,000 items,
- rents are measured from about 50,000 landlords and tenants.

14.2 Use of the CPI



Four major uses of the CPI:

- 1. To evaluate and determine economic policy.**
- 2. To compare prices in different years.**
- 3. To adjust other economic data for inflation.**
- 4. To determine salary and price adjustments.**

Major Uses of the CPI



1. To evaluate and determine economic policy.

Government: to evaluate how well current economic policies are working.

Private companies/individuals: to make economic decisions.

2. To compare prices in different years.

price at time 2 = (price at time 1) × (CPI at time 2) / (CPI at time 1)

Year	1950	1960	1970	1975	1980	1985	1990	1995	2000
CPI	24.1	29.6	38.8	53.8	82.4	107.6	130.7	152.4	172.2

Example: Rent for apartment \$300 a month in 1985.

What would the comparable rent be in 1995?

price in 1995 = (price in 1985) × (CPI in 1995) / (CPI in 1985)

price in 1995 = (\$300) × (152.4/107.6) = \$300 × 1.4164 = \$424.91

Major Uses of the CPI

3. To adjust other economic data for inflation.

If you plot any economic measure over time, you would see an increase simply because value of a dollar decreases every year. To provide true picture of changes in conditions over time, most economic data presented in values adjusted for inflation.

4. To determine salary and price adjustments.

The CPI affects the income of almost 80 million persons, as a result of statutory action: 48.4 million Social Security beneficiaries, about 19.8 million food stamp recipients, and about 4.2 million military and Federal Civil Service retirees and survivors. Changes in the CPI also affect the cost of lunches for 26.5 million children who eat lunch at school, while collective bargaining agreements that tie wages to the CPI cover over 2 million workers. (U.S. Dept. of Labor, 2003, CPI website.)

14.3 Criticisms of the CPI



Some criticisms of the CPI:

- 1. Market basket used in the CPI may not reflect current spending priorities.**
- 2. If price of one item rises, consumers are likely to substitute another.**
- 3. CPI does not adjust for changes in quality.**
- 4. CPI does not take advantage of sale prices.**
- 5. CPI does not measure prices for rural Americans.**

Criticisms of the CPI



- 1. Market basket used in the CPI may not reflect current spending priorities.**

Market basket changed infrequently. Does not reflect rapid changes in lifestyle and technology.

- 2. If price of one item rises, consumers are likely to substitute another.**

If price of beef rises, consumers may buy chicken instead. Starting in Jan 1999, substitutions within subcategory have been taken into account through use of new statistical methods for combining data.

Criticisms of the CPI



- 3. CPI does not adjust for changes in quality.**
Assumes that if you purchase same items in the current year as you did in the base year, your standard of living will be the same – not so for say computers or cars.
- 4. CPI does not take advantage of sale prices.**
Outlets used to measure prices for CPI chosen by random sampling methods. Outlets consumers choose likely to be based on best price that week.
- 5. CPI does not measure prices for rural Americans.**
CPI is relevant for about 87% of the population: those who live in and around urban areas.

14.4 Economic Indicators



Sample of some other indicators:

- 09 Construction contracts awarded for commercial and industrial buildings, floor space (L,C,U)
- 10 Contracts and orders for plant and equipment in current dollars (L,L,L)
- 14 Current liabilities of business failure (L,L,L)
- 25 Changes in manufacturers' unfilled orders, durable goods industries (L,L,L)
- 27 Manufacturers' new orders in 1982 dollars, nondefense capital goods industries (L,L,L)
- 39 Percent of consumer installment loans delinquent 30 days or over (L,L,L)
- 51 Personal income less transfer payments in 1982 dollars (C,C,C)
- 84 Capacity utilization rate, manufacturing (L,C,U)
- 110 Funds raised by private nonfinancial borrowers in credit markets (L,L,L)
- 114 Discount rate on new issues of 91-day Treasury bills (C,LG,LG)

Leading, Coincident, and Lagging Indicators

Economic indicators classified according to whether their changes *precede*, *coincide with*, or *lag behind* changes in the economy.

- **Leading economic indicator:** highs, lows, and changes tend to *precede* or *lead* similar changes in the economy.
- **Coincident economic indicator:** changes that *coincide* with those in the economy.
- **Lagging economic indicator** changes *lag behind* or follow changes in the economy.

Code letters show the possible combinations:

(L,L,L) = Highs **Lead**, Lows **Lead**, and Changes **Lead**

(C,LG,LG) = Highs **Coincident**, Lows **Lag**, and Changes **Lag**

Composite Indexes

Components of the Index of Leading Economic Indicators

1. Average workweek of production workers in manufacturing
2. Average weekly initial claims for state unemployment insurance
3. New orders for consumer goods and materials, adjusted for inflation
4. Vendor performance (companies receiving slower deliveries from suppliers)
5. Contracts and orders for plant and equipment, adjusted for inflation
6. New building permits issued [private housing units]
7. Change in manufacturers' unfilled orders, durable goods
8. Change in sensitive materials prices
9. Index of stock prices
10. Money supply: M-2, adjusted for inflation
11. Index of consumer expectations

This composite index is most commonly quoted source of predictions about future economic behavior.

Case Study 14.1: Did Wages Really Go Up in the Reagan-Bush Years?



- Republicans argued Americans were better off in 1992 than they had been 12 years earlier.
- Average wages of workers in private, nonagricultural production had risen from \$235.10 per week in 1980 to \$345.35 in 1991. (*World Almanac and Book of Facts*, 1995, p. 150)
- CPI in 1980 was 82.4; for 1991, it was 136.2.

salary time 2 = (salary time 1) × (CPI time 2) / (CPI time 1)

salary in 1991 = (\$235.10) × (136.2) / (82.4) = \$388.60

*Average weekly salary **actually dropped** during those 11 years, adjusted for inflation, from equivalent of \$388.60 to \$345.35.*