

§ 3D INDEX NUMBERS: THE CPI & BEYOND

INDEX NUMBERS PROVIDE A SIMPLE WAY TO COMPARE MEASUREMENTS OF THE SAME THING TAKEN AT DIFFERENT TIMES OR PLACES.

ONE MEASUREMENT IS ARBITRARILY CHOSEN TO BE THE ONE THAT ALL OTHER MEASUREMENTS ARE COMPARED TO. THIS IS THE REFERENCE VALUE.

THEN ALL MEASUREMENTS ARE CONVERTED INTO INDEX NUMBERS:

$$\text{INDEX \#} = \frac{\text{VALUE}}{\text{REF. VALUE}} \times 100$$

NOTE: [VALUE] IS [INDEX #] % OF [REF. VALUE]

EXAMPLE WITH TABLE

CHANGING THE REFERENCE VALUE

ADD A NEW COLUMN TO THE TABLE.

Consumer Price Index (CPI)

COMPARES THE "AVERAGE" PRICE OF MAIN CONSUMER GOODS

TO THE "AVERAGE" PRICE IN ~1980-1982

REF. VALUE.

SPRING 2012 FINAL EXAM (#12)

(a) SUPPOSE CPI IN 1980 : 82.4

CPI IN 2000 : 172.2

IF YOU NEEDED \$25,000 IN 1980 FOR STANDARD OF LIVING,
HOW MUCH DO YOU NEED IN 2000?

(b) REWRITE 2564 BILLION IN SCIENTIFIC NOTATION.

(c) I'M EARNING 3 TIMES AS MUCH AS MY NEW SOB.
THAT'S LIKE GETTING A _____% RAISE.

RATE OF INFLATION

↳ DEFINED AS RELATIVE CHANGE (PERCENT CHANGE) IN CPI.

EX: WHAT'S THE RATE OF INFLATION FROM 1960 - 1970 ?

1970 - 1980

1980 - 1990

1990 - 2000 ETC...

WAS MY SALARY KEPT UP?

ADJUSTING PRICES FOR INFLATION

CONVERTING UNITS : $\$X \rightarrow \Y

$$\boxed{\$Y = \$X \cdot \frac{CPI_Y}{CPI_X}}$$

CONVERSION
FACTOR

EX: KB TOYS
\$5.25/hr IN 1999

↓
TODAY

1st CAR \$600 IN 2000

↓
TODAY

SUPER NINTENDO \$210 |
IN 1990 .