



## Inflation rates and inflation variability

Work through each step in Stata. Run the command, then fill in what you find — and notice the pattern that emerges.

### STEP 1 Get the data

Download the monthly Consumer Price Index from FRED:

```
import fred CPIAUCSL, clear†
```

How many monthly observations did you download? \_\_\_\_\_

### STEP 2 Keep the end-of-year price level

Build a year and month, then keep December — the cost of living at each year's close:

```
gen year = year(daten)
gen month = month(daten)
keep if month == 12
```

### STEP 3 Compute year-ended inflation

Inflation is the percent change in prices from one December to the next:

```
sort year
gen inflation = 100 * (CPIAUCSL - CPIAUCSL[_n-1]) / CPIAUCSL[_n-1]
keep if year >= 1950
```

Inflation in 1979? \_\_\_\_\_ In 2009? \_\_\_\_\_ In 2022? \_\_\_\_\_

### STEP 4 Tag each year with its decade

```
gen decade = 10 * floor(year/10)
```

### STEP 5 Summarise by decade, then fill in the table

```
tabstat inflation, by(decade) statistics(mean sd) format(%4.1f)
```

Decade	Mean inflation (%)	Std. dev. (%)
1950s		
1960s		
1970s		
1980s		
1990s		
2000s		
2010s		
2020s		

## What do you notice?

- Which decade had the highest average inflation?

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- Which decade had the most variable inflation (largest standard deviation)?

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- Across the decades, does inflation become more variable as its average rises?

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- Do your numbers support calling 1985–2019 the “Great Moderation”?

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- The 2020s row rests on fewer years — why trust it less than the others?

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<sup>†</sup> Step 1 needs a free FRED API key (set up once): get a key at [fredaccount.stlouisfed.org/apikeys](https://fredaccount.stlouisfed.org/apikeys), then type in Stata:  
set fredkey YOUR\_KEY, permanently (import fred requires Stata 15.1 or later.)