

Inflation

The general and steady increase in the price of goods and services in an economy over a period of time.

Measuring Inflation

The Consumer Price Index (CPI) is the official measure of inflation in Ireland. It measures the change, in index form, in the average level of prices (inclusive of all indirect taxes) paid for consumer goods and services by all private and institutional households in the country and by foreign tourists holidaying in Ireland.

The Household Budget Survey (HBS) is carried out every 5 years by the CSO to measure the income and expenditure of households. A detailed record of household expenditure is recorded by members of the household over a period of time. The data from the HBS is used as the basis for the weighting of items in the CPI basket. The weight is the proportion of total expenditure spent on a certain item or category in the overall basket of consumer goods and services. For example, the percentage of total expenditure on Food & Non Alcoholic Beverages is 11.400%. In simple terms, it means the average expenditure on Food & Non Alcoholic Beverages was under 12%. The weight presents the relative importance of an item or category in the overall basket.

Investments such as life assurance, pensions, and capital payments on house purchase (mortgage), charity contributions, lottery and betting payments and items which do not command a price are excluded from the scope of the index.

On a monthly basis, approximately 80 price collectors collect 53,000 prices from approximately 3,500 retail outlets throughout the country. Since February 2010, prices are collected over a period of more than one working week, i.e. Monday prior to the second Tuesday of the month up to and including the third Tuesday of the month. Price collectors try to select retail outlets which are representative of a particular area and cover a mixture of large and smaller retail outlets - a mixture of supermarkets, small specialist shops and other retail outlets. In the case of services, a sample of respondents are selected throughout the country as representative of all service providers and canvassed via Special Inquiries. In a certain number of cases, such as electricity and health insurance, national pricing exists, and prices are collected from central sources.

- **Constructing a Consumer Price Index: In summary**
 1. Based on the 'National Average Family Shopping Basket'
 - Those items which the average Irish family buys frequently and in large quantities are included.
 2. Expenditure patterns divided into various categories
 - The CPI contains various categories of expenditure: food, alcohol, tobacco, clothing & footwear, fuel & light, housing, durable and non-durable household goods, transport, services and miscellaneous items etc
 3. Prices in Base Year determined
 - The average cost of the above items is taken to equal 100.
 4. Prices in Current Year determined
 - The current prices of each item are collected from a fixed panel of retail and service outlets in various locations throughout the country. The prices are then compared with prices in the base year.

5. Calculate a Simple Price Index (SPI) for each commodity.
 - $(\text{Price in Current Year} / \text{Price in Base Year}) \times 100$
6. Calculation of 'Weight' (Household Budget Inquiry)
 - The weight is the fraction of income which is spent on each category of expenditure and this information is obtained by means of the Household Budget Inquiry (random sample of all private households in the state).
7. Multiply the SPI for each commodity by its 'weight' and add to derive the CPI.

- **EXAMPLE**

For a composite (weighted) price index covering three categories of expenditure given in the following table, calculate the index for the current year. The base year value is 100. (Show all your workings).

Category	% of Income spent on item(s)	Price of Item(s) in base year	Price of Item(s) in current year
		€	€
Food	40%	20.00	24.50
Clothing & Footwear	25%	42.00	40.00
Other Items	35%	30.00	36.00
	100%		

Category	Prices of Item(s) Base Year	Calculation of Simple Price Index x Weight
	€	
Food	20	$\frac{24.50 \times 100}{20} = 122.50 \times 40\% = 49.00$
Clothing & Footwear	42	$\frac{40.00 \times 100}{42} = 95.23 \times 25\% = 23.80$
Other Items	30	$\frac{36.00 \times 100}{30} = 120.00 \times 35\% = 42.00$
Price Index for the Current year		114.80

- **Uses of the CPI**
 - **Measures the Rate of Inflation.**
 - Changes in the CPI from one month to the next gives us the official prevailing rate of inflation.
 - **Measures International Competitiveness.**
 - By comparing our inflation rate with that of our trading partners we can determine whether our competitiveness on international markets is improving or dis-improving.
 - **Used in Partnership Agreements negotiations.**
 - Trade unions use any increase in the CPI as the basis for their wage claim increases.
 - **Indicator of economic performance.**

- The CPI, together with statistics on employment, economic growth, exchequer returns etc., provide an indicator of the country's economic performance.
- **Indexation of savings / investments.**
 - Some savings schemes have 'index-linked' returns meaning that the rate of interest will be equal to the rate of inflation. Individuals with insurance / pension policies may be able to increase their contributions so as to maintain the real value of these policies.
- **Used by government indexing tax bands / social welfare payments.**
 - The government may use increases in the CPI to index tax bands so that taxpayers are not paying more tax. Similarly, the government may use increases in the CPI to increase rates of social welfare so as to maintain the standard of living of the recipients.
- Note: when measuring inflation you compare the change in the index with the previous year's index, not the base year, unless of course you are measuring inflation in year 2 of the five year cycle.
- **Precautions when using the CPI as a measure for changes in the cost of living**
 - **An index of the average consumer**
 - The index is an average of all consumers and is therefore not applicable to all consumers who may have different spending patterns
 - **Not a cost of living index**
 - The CPI does not take into account income changes (Caused by wage level changes, social welfare changes, tax changes) therefore it does not directly measure changes in the cost of living
 - **Not always up to date**
 - Tastes can change within the five year cycle and this will not be reflected until a new household survey is conducted
 - **The weights are static**
 - The percentage of income spent on the varying items in the basket can change over the five year cycle. This is not reflected in the CPI
 - **Quality can change**
 - The quality of an item may worsen, but the price may be unchanged. This will not be reflected in the index. For example a chocolate bar may have a reduced the amount of cocoa and keep the same price
 - **Substitution of products**
 - As the price of certain product rise consumers may switch to cheaper, generic alternatives. The CPI does not account for this.

Causes of Inflation

- Demand Pull Factors
 - If aggregate demand rises and supply remains unchanged (or decreases) prices will be pushed up as people have more resources to buy fewer goods
- Cost Push Inflation
 - Increases in wages, employers PRSI commercial rates, insurance costs, raw materials costs all contribute to inflation
- Imported Inflation

- If the euro falls in value versus foreign currencies the products from these countries become more expensive.
- Also, if raw materials imported from abroad are increasing (e.g. oil) prices are pushed up in Ireland
- Government-induced Inflation
 - If the government raises indirect taxes on items it can push up the prices if the retailer does not absorb the increase
 - Also, lower Income Tax can be inflationary.

Controls on Inflation

- **Fiscal Policy**
 - **Government policy in relation to taxation and expenditure**
 - Raising Income Tax
 - Reducing Indirect Tax
 - Cutting government expenditure
- **Monetary Policy**
 - **Government policy in relation to money supply, interest rates and the availability of credit. Irish government does not control this.**
 - Reducing Money supply
 - Increasing interest rates
 - Stricter controls on credit creation (Increasing the PLR)

Effects of Rising Inflation

- **Lower standard of living**
 - Because of the higher cost of living, people have reduced purchasing power which causes a reduction in their standard of living.
- **Increased wage demands**
 - Workers, suffering from a reduction in their standard of living, will try to negotiate wage increases to compensate for the higher cost of living.
- **Loss of competitiveness**
 - If inflation is higher in Ireland than with our trading partners it will result in a loss of competitiveness for our exports abroad. Irish exports may be priced out of foreign markets.
- **Loss of employment**
 - Employers, faced with increased wage demands and a possible loss of exports may be forced to reduce costs and reduce the numbers employed.
- **Government Finances**
 - With higher prices the government may collect increased indirect tax revenues.
- **Savings discouraged**
 - If the inflation rate is greater than the (nominal) rates of interest offered on savings, the real rate of interest available to savers falls thereby discouraging savings. Accumulated wealth is eroded by inflation.
- **Borrowing encouraged.**

- If the inflation rate increases the real rate of interest charged on borrowings falls and so the cost of repayments falls. This makes borrowing more attractive.
- **Increased disparity between sectors of the population.**
 - While those at work may seek a wage increase to compensate for the drop in living standards, those on fixed incomes must wait for the government to decide to adjust their payments. This widens the gap between these sectors. The poorer sections suffer most when inflation is high.
- **Pressure on social partnership/ industrial relations unrest**
 - Falling living standards threatens the existence of these agreements and may prevent future agreements.
- **Balance of Payments problems:**
 - With falling volume of exports & rising volume of imports our Balance Of Payments position deteriorates. Exports become dearer and less competitive on foreign markets, while imports become more competitive on the home market.
- **Uncertainty:**
 - Rising inflation rates in Ireland creates uncertainty for investment decisions. It makes business planning and profit calculation difficult.

Deflation

The general and steady decrease in the price of goods and services in an economy over a period of time.

Decreases Expenditure

First, when people expect that prices will be lower in the future, they spend less today. If you're thinking of buying a new car and expect the price will be a lot lower six months from now, why not wait? Thus, falling prices shift consumption from the present to the future as consumers wait for prices to fall, and the drop in demand can further depress the economy, lead to more price decreases, more cuts in spending -- and a downward spiral into a recession.

Rising Unemployment

The third problem with deflation is that wages and prices are generally sticky. That is, they don't adjust as quickly as needed to keep supply and demand balanced. Wages tend to be particularly sticky in the downward direction. The problem is that when prices are falling but wages aren't, it increases the inflation-adjusted cost of labour, and that leads to unemployment. The rise in unemployment leads to less spending, and that causes prices to fall further. Once again, the economy can enter a downward spiral.

Puts off New Borrowing

Deflation discourages new borrowing and makes existing borrowers worse off because it raises the inflation-adjusted value of debts and makes the debts harder to pay off. So, it imposes a burden on borrowers. This can cause consumers to spend less on durables like cars, appliances and houses that are purchased with credit. In real terms, the debt costs more during deflation because everything else costs less. As other prices drop, your fixed-rate debts consume an ever-increasing portion of your wages. You feel the pinch to a greater extent if your wages

As consumption and investment spending fall, aggregate demand declines, and that causes prices to fall even further. The result is even more deflation, more cuts in consumption and spending, further decreases in prices and the economy crashes in what Irving Fisher called a debt-deflation spiral.

Benefits of Price Stability

The ECB's stated goal is to keep inflation just below 2%

- Consumers tend to spend, generating demand for goods and services and hence creating jobs which leads to economic growth
- Government revenues increase which can help to eliminate budget deficits
- The demand for wage increases is predictable and companies can budget and plan
- People on fixed incomes (pensioners) do not see radical erosion of their purchasing power
- The value of savings is protected

Constant Tax Price Index

This is an index that keeps the indirect element of prices constant. Prices are only adjusted for changes in the price of the good, not changes in the indirect taxes applied to the product.

Eg:

Harmonised Index of Consumer Prices

The Harmonised Index of Consumer Prices (HICP) is an indicator of inflation and price stability for the European Central Bank (ECB). It is a consumer price index which is compiled according to a methodology that has been harmonised across EU countries. The euro area HICP is a weighted average of price indices of member states who have adopted the euro.

The HICP excludes mortgage interest, concrete blocks, union subscriptions, building materials, motor taxation, all of which are included in the CPI.