Chapter 53: Causes and consequences of inflation and deflation (2.3)

Key concepts
- Causes of inflation
  - Demand pull inflation
  - Cost-push inflation
  - Excess money supply
- Causes and consequences of deflation
- Counter-inflationary policies
- Evaluation of counter-inflationary policies

<table>
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<tr>
<th>Consequences of deflation</th>
<th>Discuss the possible consequences of deflation including high levels of cyclical unemployment and bankruptcies</th>
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| Types and causes of inflation | Explain, using a diagram, that demand pull inflation is caused by changes in the determinants of AD resulting in an increase in AD  
|                           | Explain, using a diagram, that cost-push inflation is caused by an increase in the costs of factors of production resulting in a decrease in SRAS  
|                           | Evaluate government policies to deal with the different types of inflation |

“Having a little inflation is like being a little pregnant – inflation feeds on itself and quickly passes the ‘little’ mark.” Dian Cohen.
Demand pull inflation

Figure 53.1 Demand-side shock, demand-pull inflation and demand-pull spiral

Cost-push inflation

An increase in factor costs on a macro scale can cause prices to rise due to the increase in costs. This causes cost-push inflation and is frequently associated with ‘one-off’ increases in price level, known as supply-side shocks. There are a number of possible causes of cost-push inflation; wages rising faster than productivity gains in the economy; a fall in the exchange rate driving up the price of imported raw materials and components; or an increase in factor prices, say the price of oil. All of these will shift aggregate supply to the left, shown in diagram I, figure 53.2.
Figure 53.2 Supply-side shock, cost-push inflation and cost-push spiral

I: Supply-side shock

A → B; an increase in factor costs causes a decrease in SRAS. This is a supply-side shock.

II: Cost-push inflation

B → C → D; the decrease in real wages causes labourers to bid up wages and SRAS continues to decrease (SRAS\(_1\) to SRAS\(_2\)). When higher wages fuel consumption, AD increases from AD\(_0\) to AD\(_1\). We've now seen a complete round of cost-push inflation.

III: Cost-push spiral

D → E → ... → H; Should labourers continue to bid up wages after the increase in AD (point D), another round of cost-push inflation commences. We now have a cost-push spiral: ↑price level → ↑wages → ↑costs to firms → ↑price level, etc.
(Type 3 Medium heading) The monetary transmission mechanism

Figure 53.3 The (monetary) transmission mechanism

I: Supply and demand for money
II: The investment schedule
III: Affect on aggregate demand

Increased supply of money... \( \rightarrow \) lowers the rate of interest... \( \rightarrow \) which stimulates C and I in AD.
(Type 3 Medium heading) The neo-classical view of money-driven inflation – LR effects

It is important to realise that monetarist theory views any increase in money that is not matched by an increase in real potential output (LRAS) as being solely inflationary in the long run. As the increase in AD (figure 53.3) has pushed equilibrium output beyond LRAS, the increase in real GDP shown in diagram III will not last, since wages will rise to match labour demand, serving to increase costs for firms and thus push the AS curve to the left (SRAS_0 to SRAS_1) as in figure 53.4. Output returns to the natural level of output, Y_{\text{NRU}} but at a higher price level.

Milton Friedman coined a main monetarist article of faith by stating that “Inflation is always and everywhere a monetary phenomenon”.¹

Figure 53.4 The (monetary) transmission mechanism

1 One of my many cheeky students, Ms O’Connor, once sent me a picture of two machines; one had numerous dials, knobs, levers, wires, connections, scales and indicators on it while the other machine had a single button, ‘On-Off’. The first machine was labelled ‘Woman’ and the second ‘Man’. I often think of monetarist policy as a ‘Man’ machine, since all the various forms of fiscal policies are basically replaced with a single knob labelled ‘Money: More ⇔ Less’.
• Causes of deflation

Figure 53.5 ‘Benign’ and ‘malign’ deflation

One might say that malign deflation cures inflation something like lung cancer cures smoking and I dare say that most economists would agree that deflation is a far greater threat to economic stability and growth than inflation. The self-reinforcing loop – known as a deflationary spiral – created by falling prices → expectations of falling prices → lower aggregate demand → falling prices…etc is a most powerful force for fiscal and monetary policy to overcome. In fact, many textbooks use the Great Depression of the 1930s to describe the effects of continuously falling aggregate demand and resultant deflation. As prices, expenditure, output and incomes fall there will be increasing unemployment which further dampens aggregate demand and can quite possibly become permanent as some sectors fold and others see permanent reductions in demand. This might lead to a higher natural rate of unemployment.
- **Counter-inflationary policies**

Using *contractionary* demand-side policies to combat inflation entails implementing policies which decrease aggregate demand. Four key methods of dampening aggregate demand are:

- **Increasing the rate of interest**: this monetary policy lowers consumption and investment and thus decreases AD
- **Decreasing the supply of money**: another monetary policy – this increases interest rates…etc…
- **Increasing taxes**: the fiscal policy of higher income taxes will lower consumption, higher profit taxes will decrease investment and both have a contractionary effect on AD
- **Decreasing government spending**: the flip side of taxes, the fiscal policy of decreased government spending has a direct effect in lowering AD

*Figure 53.6 A* shows how contractionary policies affect aggregate demand. Assuming general equilibrium at $Y_{NRU}$ and the average price level indexed at 100, AD is increasing at a rate indicating $AD_1$ and inflation of 5%. One or several contractionary policies are implement and AD settles instead at $AD_2$, $Y_2$ and an inflation rate of 3%.

*Figure 53.6 Inflation and demand-side and supply-side policies*

Using supply-side policies to lower cost-push inflation entails implementing policies which increase aggregate supply. Common examples of supply-side policies are:

- **Lowering marginal income tax rates**: higher net disposable incomes entices people to work more
- **Labour market policy changes**: legislation enabling easier hire rules for firms or decreasing minimum wage
- **Incentives for capital formation**: government can induce increased investment expenditure by giving firms tax breaks – e.g. allowing firms to deduct portions of investment spending from taxable profits
- **Interventionist policies**: government skills and re-training workshops can improve labour quality and also create better matches between labour supply and demand

*Figure 53.6 B* illustrates how $SRAS_1$ results in cost-push inflation of 8%. Over time – yes, this is a rather serious weakness – supply-side policies can shift SRAS back towards general equilibrium ($SRAS_1$ to $SRAS_2$) and a price level of 105 rather than 108.
**Evaluation of counter-inflationary policies**

This is a major issue and will be dealt with in greater depth in Sections 2.4 – 2.6. I limit the discussion here to the key points arising from the examples and diagrams used in *Figure 53.6.*

1) To start with, contractionary demand-side policies can be hugely **unpopular with citizens** and are basically not much of a crowd pleaser for politicians hoping to get re-elected. President Nixon was most reluctant to implement much-needed contractionary policies when inflation started rising in the late 1960s.²

2) Contractionary policies often lead to increased **unemployment** and **lower incomes**.

3) There is the very real risk that contractionary policies are **too severe** and that the result is recession.

4) Any policy used will be subject to **time lags** – it can take up to two years for the full effect of interest rate changes to feed through in an economy. Fiscal policies can take even longer. There is therefore a very real risk that the economy is already cooling down when the policies kick in, which could in fact **worsen** the economic downturn.

5) Supply-side policies avoid the issue of decreased incomes but are generally **long term** solutions and will not have any immediate effect on inflation. Instead the aim is more along the lines of allowing for long term growth while limiting inflationary pressure.

6) Lowering income tax rates can have serious repercussions on governments’ ability to **balance the budget**. (See Chapter 56.)

7) In reality the effect on the labour market of **lower personal income tax cuts is very limited** and simply does not increase labour supply.

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² See some fascinating economic history at Professor Bradford DeLong’s site: [http://econ161.berkeley.edu/econ_articles/theinflationofthes.html](http://econ161.berkeley.edu/econ_articles/theinflationofthes.html)
Summary and revision

1. Economics identifies three causes of inflation:
   a. Demand-pull inflation caused by increasing AD
   b. Cost-push inflation caused by decreasing AS
   c. Excess money supply leading to demand-pull inflation

2. The monetary transmission mechanism describes how a change in money supply “feeds through” to a change in AD. A ↓ΔSm → ↑Δr → ↓I → ↓AD.

3. Deflation is a general and consistent fall in the average price level. It is far more damaging to an economy than ‘reasonable’ inflation. There are two types of deflation:
   a. Benign deflation caused by increasing AS – there is deflation but rising GDP
   b. Malign deflation caused by falling AD – prices and incomes both fall

4. Counter-inflationary policies are:
   a. Contractionary policies (e.g. policies aimed at decreasing AD) include raising interest rates, decreasing the supply of money, raising taxes on income and profits, decreasing government spending.
   b. Supply-side policies (increasing AS) include lowering marginal income tax rates, easing up on labour market regulations, privatisation of national industries, decreasing union power, increased education and skills in the work force…etc.

5. Demand-side contractionary policies have negative effects such as a decrease in government tax receipts, increased unemployment, lower GDP and personal income, time lags which make it difficult to time the policies correctly and the possibility of creating recession instead.

6. Supply-side policies have some serious weaknesses, such as actually increasing unemployment in the short run, can take a long time to implement and take effect, lower marginal tax rates can have serious consequences on the government budget, and studies show very limited effects of personal income tax cuts on labour supply.