ECONOMICS

Environmental Sustainability and Inflation

Fundamental to the Australian government's economic objectives is the promotion of ecologically sustainable development (ESD). ESD involves conserving the community's resources so that ecological processes and quality of life are simultaneously maintained. An integral component of ESD is intergenerational equity which involves ensuring that resources are used in alignment with their sustainable yields to facilitate long term growth. Historically, the Australian government neglected ESD to pursue other economic objectives such as sustainable short term economic growth and full employment. However, following the emergence of environmental issues such as climate change, excess carbon emission, pressure on the Australian government to formulate new policies has increased profoundly.

Inflation is a sustained increase in the level of prices in an economy. Central banks in most nations set a target inflation rate between 2%-3%, although have sporadically deviated. Maintaining low inflation is a major objective as it is advantageous to the Australian economy in the long-term. The Consumer Price Index (CPI) measures shifts in price levels. CPI can be either headline inflation or underlying inflation.

$$\text{Inflation Rate} = \frac{CPI_2 - CPI_1}{CPI_1} * 100$$

where:

CPI_2 – is the CPI in the second period
CPI_1 – is the CPI in the previous period

This essay shall examine how these economic issues affect various aspects of the Australian economy, whilst manifesting both their source and effects.

Fundamentally, the economic concern that underpins all government decisions relating to environmental management is the market failure of the price mechanism that doesn't consider the long term effect of economic activity. Market failure occurs because the price mechanism takes account of private benefits and costs of production to consumer and producers, but does not take account of wider social costs and benefits borne by all of society, which often undermines ESD. As illustrated in Figure 1, the government's role in formulating such policies is to internalize negative externalities by decreasing quantity from Qp to Qs and increasing price from Pp to Ps – reflecting a socially optimum equilibrium that discourages production processes that undermine ESD. Additionally, as illustrated in Figure 2, the government intends to encourage production of goods that have positive externalities that promote ESD- increasing quantity from Qp to Qs and increasing price from Pp to Ps. However, as both negative and positive externalities are not reflected in the operation of the price mechanism, the government must establish policies that promote environmental sustainability.

Figure 1

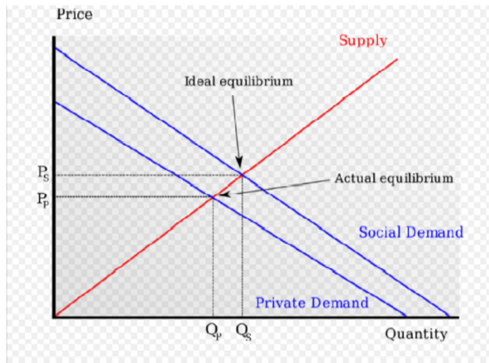
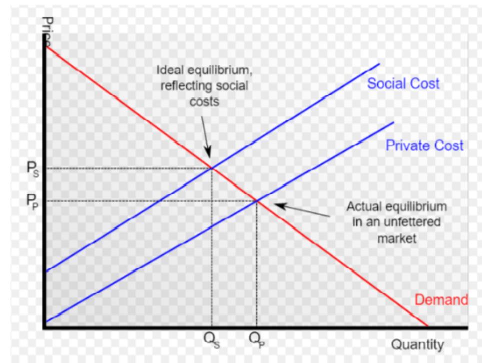


Figure 2



Confronting environmental issues can ignite conflict between industries and the government as these industries refuse to oblige by the laws enforced by repudiating to change their practices or paying full costs for the damage inflicted on the environment. Suitable laws need to be enforced to manage the environment and maintain economic growth. Environmental damage affects human health via air and water pollution.

Preserving natural environments is a significant factor in maintaining quality of life and improving economic growth in the long-term, if the environment is degraded the economy cannot continue growing efficiently as many aspects of economic growth rely on maintenance of the environment. Introducing laws to protect the environment has implications on the economy, such as reduced economic growth as a result of interventions in the price mechanism causing higher prices and reduced supply. This is reflected in the GDP of developed and emerging economies which have relatively high production output.

Industries often object to recompense for environmental damage inflicted due to affiliated costs. Thus, setting up a business in Australia is difficult owing to the strict enforcement of environmental laws, accumulating to missed opportunities that would otherwise contribute to economic growth, reducing Australia's competitiveness, limiting our productive capacity.

Financial cost of repairing damage is commonly satisfied through taxpayers rather than those who caused the environmental damage. i.e, the *20 Million Trees Program* witnessed an investment of $50 million via the government. This money will be distributed to organisations undertaking tree plantation and fostering the environment by adopting environmentally friendly approaches . In other scenarios the government may directly pass these financial responsibilities to the firm. For example, in 2017 the *Container Deposit Scheme* was introduced, to reduce littering and production of materials detrimental to the environment.

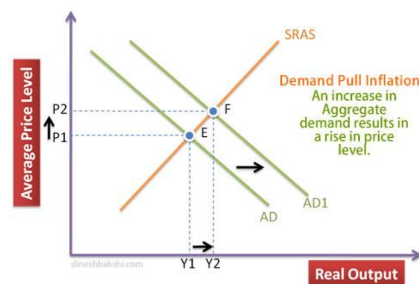
Major issues in the environment include exploitation and the depletion of natural resources, pollution and climate change.

The Australian government has adopted various policies to minimise negative externalities. A ban on the production of goods is the extreme end of the spectrum. Governments pursue this route if the production of the good is lethal to the environment or if an alternative good exists. Banning a product eliminates externalities associated with its use. These bans can be a major cost to individuals and firms, especially those who are undertaken in employment in the industry.

Currently, the Great Barrier Reef is undergoing a management plan to prevent further deterioration of the iconic reef valued at $56 billion and an annual income of $6.4 billion through tourism. *The Reef 2050 Plan* implemented in 2015 outlines objectives for the management of the reef and responds to external pressures enforced on the ecosystem and builds resilience to dangers such as climate change. Thus, protection of the reef is necessary for intergenerational equity to occur.

We shall now discuss the role of inflation in the Australian economy and the implications it has on the international business cycle. The *Keynesian Inflation Theory* can be used to explain the fluctuations within the economy, he introduced the notion of demand-pull inflation and cost-push inflation.

Demand-pull inflation occurs when there is an Imbalance in aggregate supply and demand which force an increase in prices. When aggregate demand exceeds the productive capacity of a firm there is an evident increase in prices as output is unable to expand in the short-term hence the constrained supply. The rise in price reflects the consumer's strong demand for the limited good and hence their willingness to pay a higher price. During the Eurozone Debt Crisis in 2009, spectators invested in gold as protection against the collapse of the Euro, increasing demand for commodity. As shown in the graph consumers willing to pay a higher price will force the prices upwards from P1 to P2. When the prices of goods and services are expected to rise within an economy, consumers strive to purchase products prior to the expected inflation. The evident increase in consumption has a repercussion on demand-pull inflation. Correspondingly, if firms expect an increase in demand they increase their prices.



Cost-push inflation occurs when there is an increase in production costs that producers pass on to consumers in the form of higher prices to preserve margin profitability. As the cost of production increases the supply being produced decreases which is associated with inelastic demand. The increased costs may be associated with an unexpected increase in production materials, facility shutdown or compulsory wage increases. Cost-push inflation can be related to natural disasters which disrupt production or a change in government which alter a nation's ability to maintain output. Furthermore, employees take increased expected inflation into consideration when negotiating a readjustment in nominal wages in anticipation to maintain their purchasing power, wage increases passed by firms consequent in cost-push inflation.

The priority for governments around the globe is sustaining low inflation rates to circumvent the corollary of high inflation.

The concept of inflation is closely associated with unemployment. Contractionary fiscal and monetary policy promote slower economic growth and high unemployment. Periods in which unemployment levels are high have correspondingly low inflation. However A.W Phillips notion of stagflation demonstrates the possibility of inflation and unemployment rising parallel to each other (NAIRU) hence the production of goods and services declining which was experienced by Australia in the mid-1970’s. A dramatic increase in inflation occurred

from 3.5% to 15.3% and unemployment levels rising between 1974 to 1975 to 4.9%. Historically, Australia experienced low inflation and high unemployment.

Inflation results in raised prices for Australia's exports, reducing international competitiveness and the quantity of exports. As the price for domestic goods increases consumers will alternatively use imported goods which worsens our TOT. In contrast low inflation will stimulate growth as imports will become increasingly attractive to foreign markets and domestic goods will become more competitive with imported products.

In the short term inflation may contribute to an appreciation in exchange rates leading speculators to believe the RBA will react by increasing interest rates and spectators receiving higher financial flows on investments. Over the long-term preserved low inflation will foster greater investor confidence in our economy and strengthen the value of the $A.

However, advantages of inflation are narrow, the principal benefit is deflation which refers to the likelihood of the economy experiencing falling prices. Deflation gives consumers an incentive to delay purchases causing a fall in consumer spending and prolonging the occurrence of inflation.

The Reserve Bank has employed pre-emptive monetary policy to avoid inflation and the issues which follow, between 2009-10 the RBA lifted interest rates seven times to express concerns of inflation, succeeding the recession derived from GFC. The RBA attempts to increase interest rates prior to rising inflationary pressures. The Reserve Bank endeavours to make its use of the monetary policy predictable by highlighting its intention to do so, predominantly to ensure inflation remains low. This has the impression of low inflation therefore reducing the issue.

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