

## Understanding Aggregate Demand

By Byron A. Ellis – September 16, 2009



Aggregate demand (A) is the total demand for goods and services for a particular time period and it is equal to the level of output (income). The level of equilibrium output is where income equals output. Aggregate demand is the summation of personal consumption (C), business investment (I), government spending (G), and net exports (NX). Net exports or the balance of trade is the difference between exports and imports and personal consumption depends on income.

Aggregate demand can be represented as  $A = C + I + G + NX$  and consumption as  $C = C_0 + cY$ , where  $C_0$  is autonomous consumption that does not depend on income,  $c$  is the marginal propensity to consume out of income,  $Y$ ;  $c$  is estimated to be less than 1. In equilibrium  $A = Y$ , hence  $Y = C + I + G + NX$ .

From the consumption equation, for consumption to increase autonomous consumption or income would have to increase. Autonomous consumption could increase if consumers spent their saving, inheritance, or were able to borrow funds to purchase goods and services. Consumption would also increase if consumers' real income were increasing.

Therefore, when consumers are confronted with stagnant or decreasing real income due to inflation targeting, inflationary crude oil prices, and bailed out financial institutions that are reluctant to provide credit, aggregate demand will be weak and unemployment will remain high.

Personal consumption drives aggregate demand, it is approximately 60 percent of the gross domestic product; and income drives personal consumption. Therefore, any shortage in real income causes aggregate demand to diminish. For instance, if marginal consumers' real incomes are diminishing due to high crude oil prices they may not be able to pay mortgages.

Consumers' inability to pay debts causes financial institutions to hold toxic assets. The toxic assets held by financial institutions, however, is merely a symptom of an income problem.

Imagine for a moment that instead of bailing out financial institutions, the government bailed out residential mortgage holders by reducing mortgage interest rates. Thus, government agents would have opted to remedy the cause of the problem instead of the symptom. Foreclosures would have been significantly lower or non-existent, property values would not have decreased, financial institutions would hold far less toxic assets, and aggregate demand would remain high.

Misidentification of the root cause of the economic problem (lack income growth) and the eagerness of government agents to bail out former employers caused low aggregate demand and wealth dissipation.

As a result of targeting inflation, the Federal Reserve (Fed) maintained a policy of low to no money growth (M1) from 2005 to the fourth quarter of 2008.

However, in equilibrium, income equals aggregate demand. Therefore, if real income is falling due to higher energy prices then aggregate demand will also fall, since  $A = Y$ . Restricting the money supply to control the price level (inflation), leads to low levels of demand and unemployment.

Consumer spending, and hence aggregate demand, would have increased if the government lowered mortgage interest rate to 4% or less and permitted borrowers to regain possession of foreclosed properties if they could afford the lower payment.

Unfortunately, government agents chose to bail out their former employers with taxpayers' money rather than the taxpaying consumers, who generate more than 60 percent of GDP.