tinuous change. At the same time the business cycle itself feeds back on the behavior of these factors. Hence it is extremely difficult to isolate the importance of any single factor, such as the behavior of money, and *post hoc, propter hoc* reasoning becomes especially dangerous. In these circumstances there appears to be no substitute for a detailed, and hopefully quantitative, examination of the ways in which changes in the money supply might work through the economy ultimately to affect the various components of aggregate demand. Some brief and tentative sketches aside, the proponents of the monetary school have not attempted such an analysis.

The possible ways in which an increase, for example, in the money supply might stimulate aggregate demand can be separated into what are sometimes called "income effects", "wealth effects", and "substitution effects". Income effects exist when the same developments that produce an increase in the quantity of money also add directly to current income. Examples would be increases in bank reserves and deposits resulting from domestically mined gold or an export surplus. Similarly, a wealth effect occurs when a process increasing the money supply also increases the net worth of the private sector of the economy. A Treasury deficit financed by a rundown of Treasury deposit balances might be regarded as an example of such a process, since the resulting buildup of private deposits would represent an increase in private wealth.

Far more important than the income or wealth effects in the present-day United States economy are substitution effects such as result when the Federal Reserve engages in open market operations and banks expand loans and investments.[18] When the Federal Reserve buys Government securities from the nonbank public, the public of course acquires deposits and gives up the securities. There is no direct change in the public's net worth position,[19] or in its income; rather there is a substitution of money for securities in the public's balance sheet. The same is true when the banks expand the money supply by buying securities from the nonbank public: the public substitutes money for securities, but neither its wealth nor its income

---

[18] These substitution effects are sometimes also known as "portfolio balance" or "liquidity" effects.

[19] This statement has to be modified to the extent that the Federal Reserve's buying activity bids up the market value of the public's holdings of Government securities. The significance of this wealth effect is probably minimal and is further limited in its consequences by the tendency of many holders to value Governments at original purchase price or at par rather than at current market value.