Money and Velocity in the 1980s

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Prior to 1980, a sharp slowdown in the money supply was expected to be associated with a downturn in economic activity. Indeed this concern was still expressed by some analysts in 1987 and 1988 as the growth rates of money supply measures M1 and M2 slowed precipitously. Nevertheless, the economy has remained strong, despite the problems caused by the 1988 drought.

Recent evidence suggests that money growth is becoming more variable, reflecting increasing sensitivity of some bank deposits to changes in interest rates. In turn, this interest-rate sensitivity has affected the behavior of the velocity of money—the ratio of nominal income to money—and hence has affected the link between money and economic activity.

This Economic Commentary discusses how the newly emerging patterns in the velocities of M1 and M2 ultimately reflect the effects of financial deregulation and disinflation. Given the degree of the interest-rate sensitivity of money, and the uncertainty about how interest rates may need to vary in response to shocks to the economy, it has become difficult for policymakers to project an appropriate growth rate for the nation's money supply over the short run. This problem is also discussed.

Opportunity Cost and the Aggregates

The substantial interest sensitivity of the monetary aggregates (M1, M2) and their velocities is being confirmed in studies of money demand. In these studies, money demand is viewed as a function of its opportunity cost—the forgone interest income of holding lower-yielding money balances. As this cost of holding money rises, the demand for money falls (and velocity increases). The opportunity cost of a given deposit typically is measured by different. It had a systematic relationship to interest rates in the short run before 1980, but was, and continues to be, relatively stable over long periods.

The behavior of money has changed greatly in the 1980s. This article identifies the newly emerging patterns in money and its relationship to economic activity. These new patterns, largely a consequence of both deregulation and disinflation, reveal an increased sensitivity of money to interest rates. The implications for the role of money in the monetary policy process are also discussed.
the difference between the market inter-
rest rate on a relatively risk-free, short-
term asset (such as the 3-month 
Treasury bill) and the rate paid on that 
deposit (its own-rate).

Prior to financial deregulation, begin-
inning in the late 1970s, virtually all 
checkable deposits were noninterest 
bearing. Thus, the opportunity cost of 
M1 balances—comprised of currency 
and checkable deposits—was essential-
ly equal to the Treasury-bill rate. Inter-
est rates drifted upward over most of 
the postwar period. Rate levels at 
the trough of each recession were higher 
than at the previous trough (see chart 
2). Money balances continually be-
came more expensive to hold as inter-
est rates and inflation rose. Economiz-
izing on money balances motivated 
individuals and businesses to find in-
novative ways to arrange portfolios 
and to execute transactions while keep-
ing a minimum of checkable deposits.
Some innovations during the 1970s cir-
cumvented regulations on financial in-
situtions. Interest-rate ceilings, for in-
stance, kept banks from paying higher 
arates as market rates increased. New 
depositor-like instruments, such as 
money market mutual funds, were 
created to meet the demand of inves-
tors for higher yields on their funds, 
while maintaining their liquidity.

Also, cash management practices of 
businesses evolved as the rising oppor-
tunity cost made bank deposits less at-
tractive relative to market instruments. 
Banks began to offer arrangements 
through which their corporate cus-
tomers could conveniently purchase 
securities owned by the bank on an 
oneight basis and thereby earn 
market yields on funds otherwise held in 
institutional-bearing deposits. The 
et effect of the evolution of these in-
novations and practices was that less 
and less money was held for the same 
amount of transactions and, by defini-
tion, velocity increased.

Disinflation and Financial 
Deregulation

Disinflation and financial deregulation 
greatly affected the opportunity cost of 
money and its velocity. Disinflation 
resulted in sharply falling interest rates, 
reversing the upward trend that dated 
back to the 1950s. Deregulation al-
lowed banks to compete more effective-
ly for funds by offering interest-bearing 
checking accounts and market rates of 
interest on saving and time deposits. 
The opportunity cost of most bank 
deposits fell markedly after 1982 when 
market rates fell and when banks 
priced deposits more competitively.

The combined impact perhaps was 
greatest on individual checking ac-
counts. For these deposits, the oppor-
tunity cost fell from a high of 18 per-
cent in 1980 to almost zero in 1986. 
Because banks can now price these 
accounts competitively, it would seem 
plausible that their opportunity cost 
would ever soar as high as it did in the 
early 1980s. Moreover, the long-run, 3-
percent growth trend in M1 velocity 
now appears to have been an artifact of 
secularly rising inflation and interest 
rates in a regulated environment. On 
the other hand, the long-run trendless 
nature of M2 velocity seems unaf-
fected by the events of the 1980s.

What is curious is that, in the short run, 
most bank deposits appear more inter-
est sensitive now than before deregula-
tion. In principle, banks can, if they 
choose, alter most of their own deposit 
rates promptly in response to changes 
in market rates and thereby keep the op-
portunity cost of various deposits con-
stant. With this kind of behavior, inter-
est-rate changes should have less effect 
on aggregates of deposits. This would 
seem particularly likely for M2 because 
there are no interest ceilings 
83 percent of its deposits.

In fact, however, banks do not adjust 
all their deposit rates one-for-one with 
movements in market rates. Experience 
after deregulation indicates that repric-
ing of some types of deposits is quite 
sluggish. Banks tend to raise rates on 
some deposits more slowly than on 
others in response to rising market rates. 
For example, the own-rate on 
other checkable deposits (OCDs) rises 
more slowly because it increases a bank’s cost of funds more than an 
increase in the own-rate on time deposits. 
This is because a change in the rates 
paid on OCDs affects all existing bal-
ances, whereas a change in the rates 
paid on time deposits affects only 
newly acquired deposits. The 
net impact of these tactics is that 
bank deposits have become more inter-
est sensitive. Some have speculated 
that this may reflect the increased 
sophistication of money market accounts 
and the improved information and com-
munications technologies that have 
made funds transfers more convenient. 
Even if opportunity costs were less af-
fected by changes in interest rates now 
than before deregulation, deposit 
holders are much more conscious and 
aware of alternative assets. Thus, they 
are more likely to respond to changes 
in opportunity cost.

Recent Patterns

The opportunity cost of OCDs fell sub-
stantially with the decline in the 
Treasury-bill rate from 1984 until early 
1987. The decline in opportunity cost 
spurred rapid growth in these accounts. 
As rates started rising in 1987, how-
ever, OCD growth dropped off sharply. 
Market rates declined after the stock-
market crash, and OCDs surged during 
the first half of 1988. OCD growth 
moderated as short-term rates climbed 
in the second half of 1988. The own-
rate on OCDs has not kept pace with 
the increase in market rates, so that 
the opportunity cost has again widened. 
The interest sensitivity of OCDs ac-
counts for a large part of the post-1980 
variability of M1 velocity. 

Own-rates on savings deposits and 
money market deposit accounts 
(MMDAs) in M2 also have been slow 
to adjust to changes in market rates, 
making their opportunity costs vari-
able. The opportunity costs of OCDs, 
MMDAs, and savings deposits all have 
rises sharply during 1988. It seems 
likely that deposit holders would shift 
out of these assets more competitively.