Research Department
Federal Reserve
Bank of
San Francisco

September 16, 1977

Business & Financial Letter

Investment and Supply Constraints

Business fixed investment amounted to a rather modest 9.7 percent of GNP in the first half of 1977, and the latest Commerce Department investment survey suggests a 6-to-7 percent growth in this sector over the year ahead. This relatively small investment growth, in the context of a projected moderate expansion of business activity, implies that capacity utilization in industry will rise from its second-quarter level of 83 percent to the neighborhood of 88 percent by mid-1978—a level which in the past has indicated fairly severe supply constraints on expansion. What are the implications for the current recovery of this impending approach to full capacity utilization?

In the past, supply constraints generally have led to substantial increases in the share of GNP devoted to business investment, and some time thereafter to increases in interest rates. Neither of these effects is bad for the economy in and of itself. Neither supply constraints nor rising interest rates necessarily imply either recession or serious inflation. In fact, on two occasions in the past, supply constraints have helped cure developing imbalances between capital and labor markets.

Capital shortage?

The question of the appropriate level of capital investment is a separate issue from the widely-discussed question of "capital shortage." In our context, businessmen can face no true capital shortage, for if they find an investment to be profitable, they will make it. It has been argued, most forcefully by Burton Malkiel, that the United States is likely to have undesirably low capital formation over a long period of time. But this is not a strictly economic argument, for business has found no difficulty in the past in moving to very high rates of capital formation on short notice.

Malkiel argues, in effect, that the amount of capital businesses *desire* to hold (and which, except for brief transition periods, they *will* hold) is less than we should *wish* them to hold in some social sense. The quantity of desired capital is based on the expected demand for the output of that capital and its profitability, but people in business may differ from (say) people in Congress regarding what levels of investment are desirable.

Yet, apparently, a dollar of investment now has slightly less effect on the growth of total output than it once did. The 9.7-percent fixed-investment share of GNP in the first half of 1977, and especially the 10.5-percent average of 1964-76, were somewhat higher than the average recorded during the 1952-64 period. However, output growth in the past dozen years was comparable to that of the 1952-64 period, so that a given ratio of investment to output seems compatible with slightly less real growth now than in the late 1950's and early 1960's. But this fact

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in no way contradicts the ability of business to achieve its desired capital/expected output ratio *given* existing laws and other institutions.

Investment vs. capacity
In the past, periods of high business investment have been closely associated with periods of high capacity utilization. This timing might seem strange, for it implies that businessmen have a positive preference for investing in periods of high and rising interest rates, and also that they are systematically very shortsighted about their need for additional capital. The timing might indeed suggest that businessmen have a very low time preference, so that events in the future matter little to them.

A more plausible explanation, however, may be that businessmen are able to divorce investment from the long-term financing of such investment, and that they have a strong aversion to investing unless the demand for the resultant output is clearly apparent. The former (financing) requirement need only mean that businessmen have a reasonably strong cash flow and lines of credit at their disposal. The second (demand) requirement implies the ability during periods of constraint to create extra output fairly cheaply (with extra labor, say) along with the existence of some kinds of capital equipment with poor resale value. The demand requirement suggests that businesses will prefer to "ride out" short periods of high capacity usage by hiring labor rather than by buying capital goods—and also that businesses possess some capital goods (such as factory structures) which have no real rental market, and which thus must be assessed over their entire lifetimes. In contrast, capacity constraints are unlikely to be caused by (say) a shortage of trucks, because the business sector has available a large buffer stock of trucks owned by truck-rental firms.

Two periods of past capacity constraint provide examples of the way that added investment can relieve capacity pressure and lengthen expansions. From 1955 to 1957, and from 1966 to 1969, supply constraints were relieved by increased investment, permitting substantial further reductions in unemployment.

Investment vs. interest rates
In earlier business cycles, interest rates began to rise substantially about a year or more after the time when the business sector reached full capacity and began investing more in new capacity. As one explanation for this lag in rates, the increased spending generally began from a low level of investment, and thus put little pressure initially on financial markets.

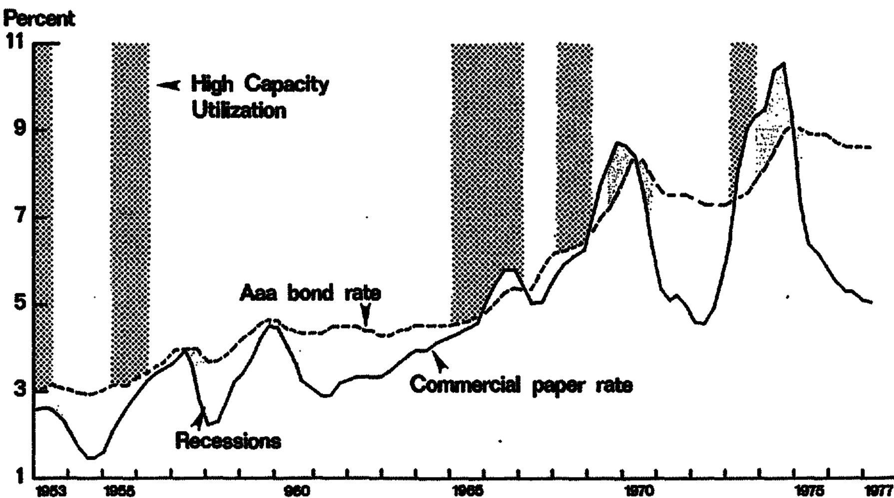
Nonetheless, any prolonged period of high investment normally will occur in an environment of high

and rising interest rates. Despite the initial lags in rates, past periods of high investment—such as 1955-57, 1965-70, and 1973-74—generally continued even in the face of sharply rising interest rates.

Looking ahead
Most analysts agree that the near-term outlook involves continued GNP growth and a relatively moderate increase in business fixed investment. Consequently, we could reach a point around mid-1978 where capacity constraints limit further growth of the economy. In the past, this kind of development has generally led to large increases in business fixed investment and, subsequently, to large increases in interest rates. Many analysts expect to see this pattern repeated in the period after mid-1978.

On present indications, however, the period of supply constraint may not turn out to be prerecessionary, because of the modest increase experienced to date in the growth of business investment spending. There is still room for considerable growth in this sector without too much effect on other areas of the economy.

Larry Butler



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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 8/31/77	Change from 8/24/77	Change from year ago Dollar	Change from year ago Percent
Loans (gross, adjusted) and investments*	99,910	- 330	+ 11,135	+ 12.54
Loans (gross, adjusted)—total	77,337	- 156	+ 10,112	+ 15.04
Security loans	1,710	- 602	+ 195	+ 12.87
Commercial and industrial	23,685	+ 179	+ 2,139	+ 9.93
Real estate	25,212	+ 108	+ 4,577	+ 22.18
Consumer instalment	13,633	+ 129	+ 2,083	+ 18.03
U.S. Treasury securities	8,418	- 215	- 757	- 8.25
Other securities	14,155	+ 41	+ 1,780	+ 14.38
Deposits (less cash items)—total*	98,204	+ 1,036	+ 9,772	+ 11.05
Demand deposits (adjusted)	28,231	+ 942	+ 2,999	+ 11.89
U.S. Government deposits	213	+ 1	- 29	- 11.98
Time deposits—total*	67,972	+ 155	+ 6,685	+ 10.91
States and political subdivisions	5,301	+ 53	- 174	- 3.18
Savings deposits	31,704	- 114	+ 4,720	+ 17.49
Other time deposits‡	28,959	+ 232	+ 2,456	+ 9.27
Large negotiable CD's	11,290	+ 175	+ 634	+ 5.95

Weekly Averages of Daily Figures	Week ended 8/31/77	Week ended 8/24/77	Comparable year-ago period
Member Bank Reserve Position			
Excess Reserves (+)/Deficiency (-)	+ 57	- 7	+ 53
Borrowings	124	223	0
Net free(+)/Net borrowed (-)	- 67	- 230	+ 53
Federal Funds—Seven Large Banks			
Interbank Federal fund transactions			
Net purchases (+)/Net sales (-)	- 146	+ 755	- 920
Transactions with U.S. security dealers			
Net loans (+)/Net borrowings (-)	+ 576	+ 465	+ 122

*Includes items not shown separately. ‡Individuals, partnerships and corporations.

Editorial comments may be addressed to the editor (William Burke) or to the author. . . .
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