Commentary: Investment Policies to Promote Growth

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Several papers at this conference have stressed the favorable effect on economic growth of increases in business investment, especially investment in machinery and equipment. The authors of these papers have reminded us that such investment does more than increase the capital stock. Investment also embodies new technologies and may involve externalities that cause the national return to private investment to be greater than the private return to the firm that does the investing.

Such externalities would justify substantial tax subsidies to investment in machinery and equipment. The existence of externalities would also help to explain the substantial differences in short-run growth rates among countries that appear to be associated with differences in their rates of investment (although it would not explain persistent differences in growth rates over very long periods of time).

It would be a mistake, however, to conclude that the case for tax incentives to increase investment rests on the existence of these externalities. Investment in new plant and equipment can be worthwhile even if there are no externalities and its contribution to growth is small in the short run and negligible in the long run.

Alan Auerbach has given us a fine paper, emphasizing the complex ways in which tax rules distort the incentives to save and to invest. In my limited time, I will focus on three issues. I will begin with the fundamental issue of why tax incentives to saving and investment are

justified. I will then discuss the importance of incentives to increase saving as well as incentives to increase investment. Finally, I will turn to the interaction between tax rules and inflation.

The case for investment and saving incentives

The desirability of increasing the level of investment depends not on investment's contribution to long-run growth but on whether the pretax rate of return to the nation is high enough to compensate for postponing consumption. I believe that the traditional estimates of pretax returns of 10 percent to 15 percent are high enough to justify foregoing current consumption in order to increase private investment in new plant and equipment. The nation now invests less than the optimal amount because taxes impose a substantial wedge between this 10 to 15 percent pretax return and the net return that individual savers receive.

Several speakers at this conference have argued for "leaving investment to the free market" and against incentives for investment. In theory I would agree with them (unless there are substantial externalities that raise the national rate of return on investment above the private rate of return). But in practical terms there is a strong case for special rules to encourage saving and investment to offset the distortions in the existing tax system.

Tax policies to "encourage" saving and investment are really just attempts to offset the distortions caused by our existing tax system. If we had a consumption tax instead of an income tax and either no corporate tax or a cash-flow corporate tax, there would be no case for saving incentives. Similarly, incentives for business investment neutralize the current (and politically untouchable) tax bias in favor of investment in owner-occupied housing. Because homeowners are permitted to deduct mortgage interest but are not required to pay tax on the value of the housing services produced, the current system is more generous than would be permitted under either a classical income tax system (that would tax the imputed service income) or a classical consumption tax (that would not permit the interest deduction).

Any reduction in taxation of business plant and equipment only

helps to reduce the current distortion in favor of owner-occupied housing, an important point that was ignored by the 1986 tax reform in the effort to establish a "level playing field" among different types of business investment.

Encouraging saving vs. encouraging investment

Alan Auerbach accepts the importance of incentives for capital formation but advocates emphasizing "investment incentives . . . rather than saving incentives." Such investment incentives would seek to shift existing investment from housing and commercial structures to expenditures on machinery and equipment. Investment incentives might also induce a greater inflow of funds from abroad.

I think both of these goals are desirable and that there is a strong case for investment incentives like the investment tax credit and accelerated depreciation for machinery and equipment.

I would add a further reason for special tax incentives for investment in machinery and equipment. Current tax laws encourage firms to make intangible investments like advertising and marketing that are expended immediately. Traditional investment incentives like the investment tax credit for machinery and equipment help to redress the current imbalance in favor of such intangible investments.

But I think it would be a mistake for the United States to focus on providing investment incentives to the exclusion of saving incentives. Increased business investment — and perhaps investment in machinery and equipment in particular — is the goal but raising the level of saving contributes to that goal to the extent that a portion of the induced increase in saving goes into business investment.

The optimal mix of saving incentives and investment incentives depends on the ultimate increase in the targeted type of investment per dollar of revenue loss due to each type of tax incentive. On that basis, I believe that it is important for the United States to increase saving incentives. Let me explain why.

First, the United States has such a low net national saving rate that

even if all net saving went into machinery and equipment, the level of such investment would still be too low. The total net private saving of households, corporations and state/local governments is now only about 5 percent of gross domestic product (GDP). The structural deficit of the federal budget--excluding deposit insurance as well as the cyclical component—is now 3 percent of GDP. Net national saving is thus only 2 percent of GDP. Even if all national saving were invested in machinery and equipment, thus forcing the per capita stock of housing and other buildings to decline, the amount of investment in machinery and equipment would still be too low in the sense that the resulting marginal product of such capital exceeded 10 or 15 percent.

Policies to shift available saving into business plant and equipment would be much more useful if the saving rate were significantly higher than it is now. There is simply not much to be gained by refocusing the use of the 2 percent of GDP that is now saved.

The second reason for wanting to stimulate saving is that in the long run, U.S. domestic investment is constrained by our domestic saving. There is surprisingly little cross-border capital flows. High saving countries have high investment rates. Thus Japan, with a net national saving rate that is nearly three times that of the United States, also has a net investment rate that is nearly three times that of the United States.

Research that I did with Charles Horioka several years ago (Feldstein and Horioka, 1980) showed that, among the Organization for Economic Cooperation and Development (OECD) countries, those countries with sustained high domestic saving rates (based on the average saving rate for a decade or longer) have had correspondingly higher domestic investment rates. More specifically, each additional percentage point of GDP devoted to domestic saving has been associated with a 0.8 percent of GDP increase in domestic investment. A number of studies since then have supported this estimate of an 80 percent marginal saving retention ratio (see, for example, Frankel [1991] and Feldstein and Bacchetta [1991]).

Recent experience in the United States confirms this long-run dependence of domestic investment on domestic savings. During the 1980s the sharp increase in the budget deficit and decline in domestic

savings led to a temporary capital inflow (and corresponding current account deficit) that reached 3.5 percent of GDP in 1986. But over the next five years, the size of the capital inflow declined until by 1991, it was less than 1 percent of GDP (even excluding the payments to the United States by other governments in connection with the Desert Storm operations). The gap between domestic investment and domestic saving has been essentially eliminated. As the United States moves from trade deficit to trade surplus during the 1990s, the current account deficit and capital inflow will decline even further.

A third reason to enact savings incentives is that they are not costly in terms of lost tax revenue. Savings incentives are essentially reductions in the personal income tax on interest, dividends and capital gains. In the United States, this has been done through pension plans and Individual Retirement Accounts (IRAs), (both of which are taxed on what is essentially a consumption tax basis with the contributions and subsequent investment returns excluded from taxable income until the funds are withdrawn).

The Bush Administration and key members of Congress in both parties have proposed expansions of the IRAs to stimulate additional saving. Steven Venti and David Wise, in a number of studies with different data sets (see, for example, Venti and Wise [1990] and [1992]), have shown that IRAs substantially raise savings. Their findings have been confirmed by other researchers (for example, Feenberg and Skinner [1992]). Although controversy remains, I have examined this research and find the results quite convincing.

What is the revenue cost of increasing savings through expanded IRAs? The government loses personal income tax revenue because (1) IRA contributions are excluded from taxable income until they are subsequently withdrawn; and (2) some of the investment income in IRAs would otherwise have been taxed as it is earned instead of when it is withdrawn.

Revenue estimates based on these two effects leave out something very important. The government also gains additional corporate tax revenue on the extra capital stock that results from higher savings. The government's official revenue estimates ignore this increase in cor-

porate tax receipts.

I have done some calculations (Feldstein 1992) that show that the increased corporate tax revenue offsets a large share of personal income tax losses. Indeed, a "back-loaded" IRA (in which contributions are made from after-tax income but no taxes are paid on withdrawals) does not have any net revenue loss when the effect on corporate tax payments is taken into account.

For these three reasons, I think that a strategy aimed at increasing investment in business plant and equipment should include savings incentives as well as investment incentives. If we can get net national savings up from 2 percent of GDP to 10 percent, policies to encourage business investment can then achieve a significant rise in business investment.

Effects of inflation on saving and investment

Because this is a Federal Reserve conference, something should be said about the effect of inflation on investment. In keeping with Alan Auerbach's emphasis on taxation, I will discuss the interaction of inflation and tax rules.

Several previous speakers commented on the adverse effect of inflation on growth. An important reason for this is that the interaction of inflation and tax rules reduces the return on saving and business investment. This occurs because tax rules are based on nominal interest income and expenses, nominal depreciation, and so on.

Consider what happens if there is a one percentage point increase in inflation and interest rates. Although the real pretax interest rate is unchanged, the additional 1 percent of nominal inflation is subject to tax. With a marginal tax rate of 40 percent, the real net rate of interest declines by 0.4 percentage points.

With that mechanism in mind, look at the experience of the 1970s when the typical marginal tax rate was 40 percent. Inflation rose from 4 percent in the late 1960s to 8 percent in the late 1970s. Short-term interest rates rose from 7 percent to 10 percent. Thus the real pretax

interest rate fell from **3** percent to 2 percent.

Consider an individual with a 40 percent marginal tax rate during those years. In 1969, the 7 percent pretax interest rate corresponded to a 4.2 percent net rate. With inflation of 4 percent, the net real rate was approximately zero. In 1979, the 10 percent pretax interest rate corresponded to a 6 percent net rate. With inflation of 8 percent, the net real rate was approximately a **negative** 2 percent. Thus the real net rate fell by 2 percent.

Inflation discourages saving by reducing the real net return to savers. Note that even though the marginal tax rate was 40 percent, the interaction of inflation and tax rules made the effective tax rate on real interest income 100 percent in 1969 and even higher in 1979.

The same type of arithmetic implies a bigger subsidy to owner-occupied housing when inflation raises nominal tax rates and therefore increases the value of the mortgage interest deduction. The real net cost of funds for owner-occupied housing is even lower when inflation is high.

In contrast to owner-occupied housing, business investment is discouraged because depreciation for tax purposes is not adjusted for inflation. Between 1965 and 1980, the rise in the nominal interest rate to corporate borrowers reduced the present value of 15-year straight line depreciation by more than 40 percent. The effect of inflation on business investment is complex because it depends on the combined impact on depreciation, on debt, and on inventories. More than a decade ago, Larry Summers and I (Feldstein and Summers 1980) put all of the pieces together and concluded that in 1977, the interaction of inflation and tax rules increased the effective tax rate on corporate income from 41 percent to 66 percent.

I conclude from this analysis that the reduction of inflation in the 1980s will mean a higher real net return to savers and a more favorable net return to business investment. These will help increase capital accumulation and growth in the 1990s.

Ironically, the transition to lower inflation may actually have hurt

savings and capital formation. The decline of inflation in 1982 caused the stock market boom that raised share prices by 300 percent in a decade. The rise in wealth caused a decline in personal saving and corporate pension contributions. The resulting fall in private saving has had a larger adverse effect on national saving than the increase in the budget deficit. But that is only a transition problem and the long-run effect of low inflation on capital formation will be favorable for the 1990s.

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