The Debate Over Saving, Investment and Capital Shortages

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THE DEBATE OVER SAVING, INVESTMENT, AND CAPITAL SHORTAGES

Most of the public and professional discussions on saving, investment, and capital shortages center on variations of one or more of the following three propositions:

1. Saving always equals investment, so no problem can ever arise.
2. Saving will equal investment in the United States in the years ahead, so there is no need to worry now.
3. In any event, we should not be concerned about capital and capitalists, but about workers and consumers.

The first two propositions are generally debated in professional circles, while the third is aimed at a less sophisticated audience. Let us deal with the third proposition first, and then turn the bulk of our attention to the first two.

WHY WORRY ABOUT SAVING AND INVESTMENT?

It should be recognized that it is difficult to arouse public interest in the question of the adequacy of investment capital in the United States in the years ahead. To many citizens, any discussion of capital immediately conjures up visions of greedy bankers, wealthy coupon clippers, and—to use what is to many a pejorative word—capitalists. Nevertheless, capital plays a pivotal role in providing the basis for the future standard of living of the population. Capital is basic for increasing productivity and thus providing an opportunity for the society to dampen down inflationary pressures while simultaneously providing rising real incomes.

Educators at times find it amusing when some of their students discover Maoist economists writing about the need to hold down consumption in the Chinese economy in order to free up the capital resources needed to invest in the future growth of that economy. "Why, they are not even a capitalist society," these students will note in

Mr. Weidenbaum is Director of the Center for the Study of American Business at Washington University in St. Louis, Missouri. This is reprinted with permission from Capital and Job Formation: our nation's 3rd-century challenge, Charles D. Kushner, editor, Dow-Jones-Irwin, Homewood, Illinois, 1978.
wonderment. Then the thought will sink in—sometimes with a little faculty assistance—that a rising stock of capital is necessary for any growing society, capitalist (that is, private enterprise or market-oriented) or other. It is really a basic matter of how much we want to eat, drink, and be merry today—and how much we want to set aside for the future. Boiled down to its fundamentals, assuring an adequate flow of saving and investment is little more than demonstrating a proper concern for the future. ¹

EQUATING SAVING AND INVESTMENT

Some economists, as well as others, seem to be offended by studies that show—for some future year—a yawning gap between the amount of saving that will be available and the amount of investment that will be desired. They note, quite properly, that they are dealing with an accounting identity. ² A capital shortage can never appear in the traditional national income (gross national product) accounts as a discrepancy between saving and investment. Such economic statistics can only show the amount of saving and investment which actually occurs, not the amount socially desirable. Unlike many of the speeches based on it, the often-cited study by the New York Stock Exchange does clearly and properly distinguish between (1) the gap between forecast saving and estimated investment requirements and (2) the equality—at some level—of the actual saving and investment that will take place.³

The equality between actual saving and actual investment is similar to the equality, on business balance sheets, of assets and liabilities (including net worth). Yet at the company level, the simple accounting identity is not permitted to inhibit serious analysis. It is universally understood that the Assets = Liabilities relationship is true for both bankrupt concerns and corporations with Aaa credit ratings. Similarly, Saving = Investment both in the case of a rapidly growing national economy and of a stagnant or even declining economy. There are serious questions to be considered. At what level does the balancing of saving and investment take place? What investment needs are rationed (or "crowded out") in the process? What types of investments are actually funded? What impacts are likely on productivity, living standards, and similar indicators of economic performance?

The equilibrium between saving and investment does not seem to be taking place as effortlessly as might be inferred from the critics. An examination of that burgeoning but almost universally ignored category of economic policy, the government credit programs, is pertinent. Surely, the rapid expansion in the size and scope of these federal financial intermediaries is symptomatic of growing dissatisfaction with the operation of the saving and investment process.

As shown by Chart 1, fifteen years ago about one tenth of the flow of private saving was directed to investment via the use of the government's credit power. At present, the ratio fluctuates around one third.⁴ The rapid growth of "off balance sheet" federal financing is shown in Table 1.

As Henry Wallich has pointed out, capital inadequacy can show up in various forms. First, it can manifest itself in bottleneck situations,

<table>
<thead>
<tr>
<th>Year</th>
<th>1960</th>
<th>1965</th>
<th>1970</th>
<th>1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Federal borrowing (budget financing)</td>
<td>$2.2</td>
<td>$4.0</td>
<td>$3.8</td>
<td>$50.9</td>
</tr>
<tr>
<td>B. Federally assisted borrowing (outside of budget)</td>
<td>3.3</td>
<td>8.8</td>
<td>12.6</td>
<td>13.9</td>
</tr>
<tr>
<td>C. Total (A + B)</td>
<td>5.5</td>
<td>10.8</td>
<td>16.4</td>
<td>64.8</td>
</tr>
<tr>
<td>D. Total funds advanced in credit markets</td>
<td>$43.4</td>
<td>$69.6</td>
<td>$90.5</td>
<td>$177.9</td>
</tr>
<tr>
<td>E. Federal portion (C ÷ D)</td>
<td>12.7%</td>
<td>15.5%</td>
<td>18.1%</td>
<td>36.4%</td>
</tr>
</tbody>
</table>

Sources: Federal Reserve; U.S. Treasury Department.
In the occupational safety and health area, professional safety staffs are often diverted from their basic function of training workers in safer operating procedures to filling out forms, posting notices, and meeting other essentially bureaucratic requirements. And so, we find safety personnel answering such trivial questions as: How big is a hole? When is a roof a floor? How frequently must spittoons be cleaned? Of greater concern, no doubt, is the detail of the regulations. Occupational Safety and Health Administration (OSHA) directives, for example, contain very specific requirements for virtually every piece of equipment used in the production of steel. These requirements range from such major items as coke ovens all the way down to such minutiae as the ladders used in plants and the mandatory 42-inch height from the floor for portable fire extinguishers. The results measured by any improvement in safety are almost invariably disappointing. The number of workdays lost to injury and illness per one hundred workers in American industry rose from 53.1 in 1974 to 54.4 in 1975.

Innovation

The hidden cost of government regulation that potentially is perhaps the most costly of all is a reduced rate of introduction of new products and manufacturing processes. The longer it takes for a new product or production technique to be approved by a government agency — or the more costly the approval process — the less likely that the new product will be created. In any event, innovation will be delayed. The banning or forcing out of existing products likewise has a negative effect on the incentive to proceed with new products that may be rejected on similar grounds.

The saccharin case, while the best known, is not an isolated example of proposed product bans based on the zero risk approach to health and safety. In August 1975, the National Cancer Institute reported that the solvent trichlorethylene, known as TCE, might be a possible cause of cancer. TCE at the time was used in decaffeinated coffee. The government used a generous dose of the chemical on test animals — the equivalent of a human being drinking fifty million cups of decaffeinated coffee every day for an entire lifetime. But did the industry laugh at or ignore the government’s report? Hardly. With the cyclamate episode still firmly in mind and a saccharin ban being seriously considered, one major producer quickly changed to another chemical.

Or, turning to the chemical industry — one of the largest technically oriented sectors of the American economy — more than twenty federal laws cover the regulation of chemicals, ranging from the Consumer Product Safety Act and the Federal Insecticide, Fungicide, and Rodenticide Act to the Clean Air, Clean Water, and Solid Waste Disposal Acts. A newcomer to the scene is the Toxic Substances Control Act (Tosca) of 1976. The concern within the industry is that Tosca will have a severe impact on the entire industry in the same way the 1962 Food and Drug Act Amendments affected the pharmaceutical manufacturers.

Sam Peltzman of the University of Chicago has estimated that the 1962 amendments to the Food and Drug Act are delaying the introduction of effective drugs by about four years, as well as leading to higher prices for drugs. Due in large part to the stringent drug approval regulations, the U.S. is no longer the leader in introducing new medicines. According to William Wardell of the University of Rochester School of Medicine, we were the thirtieth country to approve the anti-asthma drug meta-proterenol, the thirty-second to approve the anti-cancer drug adriamycin, the fifty-first to approve the anti-tuberculosis drug rifampin, and the sixty-fourth to approve the anti-bacterial drug co-trimoxazole.

Henry Grabowski and John Vernon of Duke University report that the more stringent Food and Drug Administration regulation of pharmaceuticals over recent years has been a major cause of higher costs, time lags and rising risk in pharmaceutical innovation. They contend that increased regulation alone accounts for the doubling in the cost of developing and introducing a new chemical entity in the U.S. What’s more, they conclude that innovation has become increasingly concentrated in the large, multi-national drug companies, apparently because these firms are better able to bear the additional costs and risks of innovation than smaller firms and, in addition, because they can shift resources on a worldwide basis.

The shift away from basic research toward evolutionary or applied research is already evident among chemical manufacturers. Chemical and Engineering News (October 3, 1977) noted that “DuPont, the U.S. chemical industry’s leader in research and development spending, has, over the past few years, shown a notable retrenchment in its real-dollar research and development support. In the process, the company has shifted many of its research and development efforts from new venture research to work on established product lines...”

In addition, “defensive” research is competing with basic research for the research and development budget dollar. Monsanto found that thirteen percent of its research was spent on compliance and therefore reorganized its research and development efforts into two parallel organizations, one traditional and a new Environmental Policy Staff.
Table 2. Range of assumptions on policy in major capital forecasts

<table>
<thead>
<tr>
<th>Author and time period covered</th>
<th>Assumptions</th>
<th>Projected total private saving rate (percent of GNP)</th>
<th>Projected investment needs (percent of GNP)</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosworth, Duesenberry, and Carron (1973-80)</td>
<td>No net new federal programs; grants and transfers continue to grow to fund existing programs. Monetary policy easier (interest rates lower) than in 1974. Tax revenues rise as real output and prices increase. Government expected to generate a net surplus of $13 billion in 1980.</td>
<td>15.2</td>
<td>15.6</td>
<td>Capital shortage can be averted if government achieves projected surplus. &quot;We can afford the future, but just barely.&quot;</td>
</tr>
<tr>
<td>Benjamin M. Friedman (1977-81)</td>
<td>Modest new government spending, programs; transfers grow faster than GNP. Budget balanced by tax reductions during inflationary periods when revenues rise sharply. Budget balanced in 1977 and all subsequent years in study. Monetary policy relatively tight.</td>
<td>15.7</td>
<td>15.8</td>
<td>Foresees no problem in nonfinancial corporate sector; but expects sector's reliance on external funds to be greater. Believes residential share of output will decline.</td>
</tr>
<tr>
<td>Sinai and Brinner (1975-85)</td>
<td>Government expenditures increase, but decline relative to GNP. Transfer payments increase according to law. Monetary policy is largely accommodating; interest rates higher than in past decade, but this reflects influence of inflation and strong credit demands. Large deficits are projected through 1970s; smaller deficits in 1980s.</td>
<td>16.4</td>
<td>15.3</td>
<td>Shortages unlikely, especially in late 1970s. Financing becomes more difficult in 1980s. Rising ratios of short-term to long-term debt and debt/equity rise, leading to some decreases in investment.</td>
</tr>
</tbody>
</table>

Table 2 (continued)

<table>
<thead>
<tr>
<th>Author and time period covered</th>
<th>Assumptions</th>
<th>Projected total private saving rate (percent of GNP)</th>
<th>Projected investment needs (percent of GNP)</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York Stock Exchange (1974-85)</td>
<td>Assumes $3.5 billion annual deficit. No change in tax policy. Makes no mention of monetary policy.</td>
<td>14.6</td>
<td>16.4</td>
<td>Serious capital shortage likely to occur. Cumulative capital shortage could exceed $650 billion under some circumstances.</td>
</tr>
<tr>
<td>Bureau of Economic Analysis, U.S. Department of Commerce (1975-80)</td>
<td>Slower growth in government expenditures; tax incentives developed to encourage investment. Deficit is reduced to avoid preempting investment. Monetary policy is expansionary when deficit is small.</td>
<td>—</td>
<td>—</td>
<td>Under assumptions of study, no shortage is likely to occur.</td>
</tr>
</tbody>
</table>

* Business fixed investment is estimated to rise from 10.4 percent of GNP in 1965-70 to 12.0 percent in 1975-80 because of environmental legislation and the effect of domestic energy independence.

The changing age distribution of the population. Consumers who are a basic source of saving in the economy, will be experiencing some adverse factors. The changing age distribution of the U.S. population suggests that, if past saving patterns are maintained, the personal saving rate (although not the absolute amount) could decline over the coming decade.

The saving rates of different age groups. The anticipated trends in the low-saving age groups are quite different from those in the high-saving age brackets. That does not require much forecasting ability because these are people who are already born and living in the United States. The prospects are very unfavorable. The number of Americans in the high-spending, low-saving age brackets (20–34) will be rising substantially, from 45 million in 1972 to 60 million in 1982. These are the young people who borrow heavily, particularly to finance and furnish new homes. Most of the people who shift from renting to buying a home are under 35. In contrast, the high-saving age brackets (40–54) will show a decline in absolute numbers, from 36 million in 1972 to 34 million in 1982.

The liberalization of Social Security. Another factor dampening the private saving rate is the repeated liberalization of Social Security and other government welfare programs. This relationship has been noted by several scholars, liberal and conservative. Recent studies show that the provision of public pensions substantially depresses the rate of private saving. With the Social Security system operating at best on a pay-as-you-go basis, there is no offsetting government saving. Should the system begin to operate at a deficit, there would be government dissaving, that is, increased "crowding out" in the nation's capital markets.

The overstatement of corporate profits. Inflation has resulted in substantial overstatements of real business profits (a basic source of corporate saving), especially as a result of inadequate depreciation allowances and transient inventory profits. Real corporate profits (adjusted for these factors) declined by over 40 percent in the past decade, from $37.0 billion in 1965 to $20.6 billion in 1974. As long as inflation continues and traditional accounting methods are employed, this problem will persist. Consequently, business is being forced to use virtually all of its saving from depreciation allowances and retained earnings simply to maintain existing capacity.

FORCES INCREASING DEMAND

On the demand side, in contrast, there will be many rising needs for capital investment, to meet both new priorities, such as reliance on domestic energy, and the requirements directly imposed on business by government.

Pollution control spending. Both public and private projections show that rapidly rising annual dollar outlays for new pollution control facilities will be required to meet existing legal requirements, as shown in Table 3. About 5 percent of industrial plant and equipment investment is expected to be devoted to these purposes.

OSHA outlays. Government-mandated industrial safety and noise abatement outlays will be significant, with estimates ranging to $40 billion or more during the coming five-year period. These government-mandated investment requirements help to explain the anomaly of a declining return on capital, which is supposed to be a characteristic of a capital surplus economy. It is evident that the typical firm realizes little if any return on these involuntary outlays. Thus a larger than average return is required on the capital investments that are devoted to production.

Rising capital-output ratios. A more basic concern has been the tendency for the ratio of capital stock to output to rise during the past decade. This reversed the trend of the preceding period, during which capital efficiency was improving. A recent report of the nonpartisan Congressional Budget Office states the matter very clearly: "Certainly growth in the capital stock of the economy plays an important role in increasing labor productivity, and per capita living standards are unlikely to rise without increasing productivity or output per worker. Thus, the recent weakness in investment and in productivity is a matter of some concern."

THE ROLE OF PUBLIC POLICY

Before considering possible changes in public policy, it is important to understand the impact of existing policies. If any doubt remains about the bias in the tax system in favor of consumption and against saving, it can be resolved quickly with a simple and straightforward example. Take the case of three factory workers, Mr. A, Mr. B, and...
Mr. C. They are the same in age, have the same work experience and the same size families, and earn the same wages. To keep it simple, also assume that each rents the house he lives in.

- Mr. A is the saver—each week he deposits a portion of his paycheck into his savings account.
- Mr. B regularly spends what he earns, no more and no less.
- Mr. C is the big spender. Not only does he spend everything he earns, but he borrows to the hilt, buying as much on credit as he can.

Which of the three pays the most income tax, and which pays the least?

Clearly, Mr. A, the saver, will have the highest tax bill, paying taxes on his wages as well as on the interest he earns on his savings account. Mr. C winds up with the lowest tax bill, as he receives a tax deduction from the interest he pays on his borrowings. Mr. B's tax bill will be in between that of Mr. A and Mr. C.

Actual practice, of course, includes many variations in the tax treatment of financial transactions. Yet, as a general principle, it does seem that, for the average citizen, the existing personal income tax structure favors consumption over saving. In addition, many government spending programs operate with a similar effect.

Assume that Mr. A, Mr. B, and Mr. C all get laid off at the same time and that none of them obtain a new job.

- Mr. C, the big spender, will be the first one to be eligible for welfare, food stamps, and medicare.
- Mr. B, who spends all he earns, will be next.
- Mr. A, the big saver, will be the last to qualify for federal assistance. Unlike the good Lord, federal government policy does not seem to help those who help themselves!

FINANCING THE NATION'S FUTURE

What can be done to provide greater encouragement to saving and investment?

Reducing federal deficits. The first and perhaps most important idea that comes to mind is essentially a negative one. The federal government should stop being such a large dissaver. That is, it should eliminate or at least reduce the massive extent to which it currently competes with the private sector for the relatively limited supply of investment capital. As the economy continues to recover from its recession lows, the rising pace of business activity will yield increasing flows of federal revenues. Unless Congress increases government spending at that same rapid rate, the result will be a substantial reduction in the federal deficit in the years ahead. The result is not a foregone conclusion. The advocates of economy will have to exert sufficient political pressures to offset the proponents of greater government spending.

Off-budget spending. There is a related need, which is far more technical, and hence for which there is little public support or even understanding—the need to curtail the various off-budget agencies. These are mere subterfuges whereby normal federal expenditures do not show up in the budget. Because these expenditures are not subject to the scrutiny of the budgetary process, they are expanding at a far more rapid rate than the budget. In fiscal 1972, they totaled $249 million. In the fiscal 1978 budget, they are estimated at over $9 billion. That is $9 billion that the U.S. government has to borrow above and beyond the official budget deficit. Should the proposals for an off-budget Energy Independence Authority or an off-budget national health insurance program be adopted, the size of this category would more than triple.

Table 4. Expansion in outlays of off-budget federal agencies (fiscal years; $ billions)

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<tr>
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</thead>
<tbody>
<tr>
<td>Export-Import Bank</td>
<td>0</td>
<td>$0.2</td>
<td>$1.4</td>
<td>3</td>
</tr>
<tr>
<td>Postal Service</td>
<td>0</td>
<td>0</td>
<td>0.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Rural Electrification</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Administration</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Housing for the Elderly</td>
<td>0</td>
<td>0</td>
<td>0.2</td>
<td>0</td>
</tr>
<tr>
<td>or Handicapped Fund</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Environmental Financing</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Authority</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Rural Telephone Bank</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Federal Financing Bank</td>
<td>0</td>
<td>0</td>
<td>6.4</td>
<td>5.9</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>$0.2</td>
<td>$9.5</td>
<td>$9.2</td>
</tr>
</tbody>
</table>

*Outlays are now included in the budget totals; $1.0 billion planned spending would raise the total from $9.2 billion to $10.2 billion.

Source: Compiled from various federal budget documents.

More realistic government controls. A third useful contribution that the federal government can make to ensure capital adequacy in the years ahead is in the area of government controls over business. An increasing number of regulatory agencies impose investment requirements on business firms, requirements which do not generate more productive capacity but are intended to meet various social pri-
orities. These social requirements should not be eliminated, but they should be subject to the rigors of a benefit/cost test. These expensive federal regulatory requirements should only be continued if it can be demonstrated that their value or benefit to the society exceeds the costs that they impose on the public.

True tax reform. Let us turn now to the more positive possibilities for encouraging saving and investment. There are important and useful lessons to be learned from the past. The more specific the focus of a federal tax incentive, the more likely it is that inefficiencies and other unwanted side effects are going to result. What is needed is *true* tax reform of general applicability. For a growing number of economists, both liberal and conservative, the most economically sensible and efficient approach to increasing private saving is to reduce the corporate income tax. That action would have a number of desirable effects. Clearly, a lower corporate income tax rate would increase after-tax corporate profits. That should also increase the amount of business "saving" in the form of retained earnings. But not all of the tax reduction is likely to be saved. Some of the added profits would be disbursed in the form of higher dividends, and individual disposable income and personal saving would therefore rise. To some extent, the tax saving may also be shifted-forward to consumers in the form of lower prices or more slowly rising prices, and backward to labor in the form of higher wages, salaries, and fringe benefits. The precise distribution of these resultant benefits would depend on the operation of market forces.

A lower corporate income tax rate would reduce the indirect but pervasive role of the tax collector in internal business decision making. It would tend to promote more efficient use of resources to the extent that fewer low-priority business expenses would be incurred merely because they were tax-deductible. It would soften the double taxation of corporate income, that is, the taxes on corporate earnings which are then taxed again as dividends received by shareowners. A lower corporate income tax rate would also reduce the current bias in the tax system toward debt financing—because interest paid on debt is deductible from taxable income, and in most cases dividends on equity capital are not. Rising debt/equity ratios and declining interest coverages on corporate balance sheets clearly demonstrate the importance of permitting a greater reliance on equity rather than on debt financing in the future.

Corporate income taxes. The present corporate income tax contains some of the more regressive elements in the tax system. This may be especially true for the portion of the corporate tax that reduces the income that would otherwise be available to such "capitalist" shareholders as philanthropic institutions, foundations, universities, and employee pension funds. A tax at the personal level, in contrast, can
purchase the stock or bonds of a domestic corporation. Others would eliminate double taxation of common stock dividends. These proposals would begin to move the federal tax structure away from taxing saving and investment so heavily and toward placing more of the burden on consumption. The timing of their enactment will be influenced strongly by the overall state of the federal budget and by competing demands on the public purse.

CONCLUSION

Unless the nation acts on many fronts to encourage private saving and to dampen government competition for investment funds—by voting a lower tax burden on saving, by reducing deficit spending, and by reforming regulation—the underlying demand for capital may out-run the supply of saving required to finance it.

As Secretary of the Treasury W. Michael Blumenthal states, "If we are to move toward a full employment economy over the balance of this decade, investment in productive capacity will have to absorb a higher proportion of our national output. We will have to achieve a better balance in distributing the results of economic growth between current consumption and investing for even greater future growth."19

In practice, available saving will be allocated one way or another among the various categories of investment requirements. But a high average level of interest rates is likely to be the balancing factor, and numerous weaker demanders of capital—notably small and new business, local governments, and individuals—will be elbowed out of financial markets and thus will obtain smaller real shares of the nation's resources. Hence, gearing public policy to encouraging an adequate flow of saving and investment does indeed show a proper concern for the future of our nation and deep compassion for its people.

NOTES

1. For more detailed analysis, see Murray L. Weidenbaum, Saving, Investment, and Capital Shortages, publication no. 8, Center for the Study of American Business, Washington University, St. Louis, February 1976; and Murray L. Weidenbaum and James McGowan, "Capital Formation and Public Policy," Electric Perspectives, 1976, no. 5, pp. 24-29.