

VARYING PUBLIC CONSTRUCTION AND HOUSING TO PROMOTE ECONOMIC STABILITY

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A periodic reexamination of old theories is useful. Changing times, new institutions, increased knowledge all call for significant reinterpretations of even well-established ideas. The task of this paper is to review, in the light of experience since the passage of the Employment Act of 1946, the basic principles and criteria relating Federal spending for construction and housing to the maintenance of economic stability.

RÉSUMÉ

General agreement exists as to certain basic propositions. The Government spends large sums of money. Because of the magnitude of its expenditures, both their level and any changes in that level affect vitally the economy's income, production, and prices.

Any increase in Government expenditures has a direct inflationary (antideflationary) effect, but expansion of income is far from identical for each dollar spent. The type of governmental expenditure, whether for public construction, durable or nondurable goods, purchases of services or of financial assets, or transfer payments may lead to widely divergent results.

The individuals and corporations receiving the Government's money differ as do the sectors of industry and sections of the country. The total increase in production and prices depends on how these groups alter their production or inventories, how much they spend of their new receipts, how fast, and on what. Some may spend it all immediately. Some may save it all. In addition to affecting the production and the spending desires of their recipients, higher governmental expenditures may also influence the spending decisions of third parties who may be encouraged or discouraged from using their funds. The total inflationary effect of a dollar of Government spending depends on the new output purchased directly by the Government plus the total amount of induced expenditures (the multiplier).

Examination shows some governmental expenditures whose timing pattern may be altered without a significant loss in public welfare or efficiency. The economic justification of others depends upon their not competing with high private expenditures. They are beneficial only if planned so as not to increase inflationary tendencies and not to raise the total cost structure unduly. In contrast these expenditures have a heightened value if made during periods of underemployment. Labor and other factors will be employed which would otherwise be underutilized. Advantageous indirect effects will accrue as this added income percolates through the economy.

This then leads to the conclusion that a successful formula for varying Government expenditures—one that would lower spending in booms and raise it in deflations—would help to insure the best use of resources and would aid in maintaining the proper level of employment as well as preventing price inflations.¹ The indirect effects of Government spending on the total economy occur whether desired or not. They are so important that the Government should not neglect them in its spending decisions. They must enter into any careful determinations of budget policy.

The application of this principle in any concrete situation is complex. A decision to cut spending requires agreement: (a) that an inflationary situation exists and that it will continue unless expenditures are lowered; (b) that it is preferable to cut expenditures rather than to raise taxes; and (c) that a specific type of outlay should be reduced. This last means accurately measuring the relative value of separate categories to determine which is needed least, and assurances that the resources made available will serve to reduce inflationary pressures in general while not dislocating a specific industry so as to raise its costs.

To date, the knowledge on which to base such decisions has been deficient. Only slight improvement has been made in measuring the relative priorities of separate needs. The actual mechanism of inflation is too uncertain to allow accurate tracing of the consequences of a proposed expenditure or curtailment. As a result, conflicts of the following type cannot be resolved.

Many observers are convinced that the current need for houses and public construction is overriding and that if demand must be reduced to ease inflationary pressures, it can be cut as effectively for other goods as for these either through taxes, specialized borrowing, or particular monetary controls. If these assumptions are correct, it follows that a proper policy would maintain spending for public construction while cutting it in other less essential parts of the economy.

On the other hand, some experts assign lower utilities to building than to other items the economy has been eagerly purchasing. They believe that problems of raising taxes or of invoking special monetary controls to cut other types of spending make it simpler and cheaper to cut demand for housing and construction. If these contrary assumptions are the valid ones, it follows that a proper policy will aim at curtailing spending in the sphere of construction.

Without the requisite knowledge to decide which set of assumptions is correct, the basic principle that spending should be reduced to counteract inflation does not offer a method of selecting one line of action in preference to another. Proper policy for the future will depend upon success in gathering more valid data so as to apply the existing criteria intelligently.

Much more effort has been expended on the analysis of expanding spending in deflations. The result of such studies has been to diminish the importance placed on contracyclical public works expenditures. The problems of forecasting, resource use, administration, and technical timing are all complex. Except for periods when excess resources exist primarily in the construction industry, analysis of the

¹ For a more complete exposition of this entire theory see: S. J. Maisel, *Fluctuations, Growth, and Forecasting* (Wiley, New York, 1957), chs. 14, 21, and 22.

difficulties involved in such a program have tended to lower the priority assigned to it in battling depressions. Conversely, added utility has become apparent for programs either to maintain fiscal stability or to increase tax remissions, transfer payments, and public spending on less durable goods or services in periods of deflation.

Rather than constituting a major weapon for economic stability, the following analysis indicates that the fluctuation of public works and housing is primarily useful in periods of extra high construction demand, in serious and lengthy depressions, or when the demand and supply situation within construction is in basic disequilibrium.

METHODS OF ALTERING SPENDING

The Government can curtail or increase expenditures in the field of public construction or housing by several types of action.

Most obvious are its powers over the directly budgeted Federal spending programs. In recent and past inflationary periods, attempts to decrease the level of public construction have been made through spreading out, cutting, or completely halting existing or proposed programs. Expenditures on Federal buildings, dams, airports, parks, etc., have been curtailed. The opposite policy has been followed in depressions. Programs administered directly by the Federal Government are the easiest to control and react most readily to a shift in policy.

Secondly, Federal action can alter a large volume of spending not appearing in the current budget. Many programs, such as those for housing, construction of public buildings, expansion of plants, and urban redevelopment are carried on through a wide variety of credit, grant, and subsidy aids. Their support may come from a pledge of Federal credit, a long-term lease, or a promise of annual subsidies. Adjustment of the terms on which aids are granted can increase or decrease demand sharply.

A third type of control is exercised through monetary policy. While most analysts agree that monetary changes can do little toward increasing demand in a deflation, its powers appear much stronger in a boom. Construction goods are extremely durable. Because a higher percentage of construction activity is financed by borrowing than is true of other goods, policies aimed at increasing interest rates have their greatest impact on this type of spending. Experience has shown, as theory predicts, that housing and local government investments are more vulnerable to tight money than are other expenditures, such as those on producers or consumers durables or on public-utility expansions.

Because general monetary policy is effective, the Government must decide whether or not to interfere with its operation in specific fields. If it is satisfied with the degree of curtailment brought about by monetary stringency, no additional action is required. If, on the other hand, it decides that alterations in the interest rate are not a proper method of rationing resources among potential users, it can decide to take counteracting steps and must select among them.

The laws and instructions to the Federal Reserve System can be changed to require that the qualitative as well as the quantitative aspects of monetary policy receive attention. Monetary policy can be

shaped so as to control demand specifically. Such action has been taken in the past.

Another possibility is to offset the effects of general monetary policy by altering the level of spending through other means. There has been wide support recently for programs aimed at counterbalancing the effect on housing of the deflationary interest rate through direct Veterans' Administration loans or by increased purchases of the Federal National Mortgage Association or Government trust funds. Similarly, school subsidies would cut down the effect of high interest rates on school construction. On the other hand, much pressure has been generated behind suggestions to eliminate such programs entirely so as to reinforce rather than offset monetary policy.

BASIS OF CRITERIA FOR POLICY DECISIONS

An axiom for Government expenditures is that a dollar should be spent on a specific project by the Government when the marginal social benefit derived is as great as or greater than could be obtained by spending the dollar elsewhere either in the private or public sphere.

Two criteria for policy appear most important. The first is really that of efficiency—the direct comparison of costs and utilities for the specific item purchased. How does the proposed spending policy affect the use of resources and the benefits gained thereby? Every expenditure entails certain costs and gains, but some produce proportionately more goods and services at a lower cost than others. One object of a spending decision must be to maximize this direct gain.

The second criterion can be thought of as effectiveness, a measure of the indirect effect of the spending on the production and price picture for the total economy. The ability of a spending policy to achieve its aims depends on the direction of its impact, on the accuracy of forecasting, on the time it takes to get underway and to finish, and on the problems of administration. Some, although lacking force, may be started and stopped quickly. Others may reach high peaks of demand but only after considerable delay.

In applying these criteria, some actions may rate high on one and low on the other. In such a case no objective economic basis need exist for choosing one over the other. As in most decision functions, the proper weighting of the separate criteria must be a political decision reflecting the desires of the Nation as a whole.

THE VALUE (EFFICIENCY) OF FEDERAL SPENDING

Much of the uncertainty concerning proper spending policies arises from our present inadequate measurements of the true efficiency of public spending. For example, assume that a cutback in housing and public construction could effectively free resources for other purposes. Should such a slice in spending be made? The answer depends upon the importance to public welfare of the housing compared with that of the uses to which the freed resources would be put if it were cut. Government expenditures cover a wide area of public consumption of goods. Moneys for defense, basic research, agriculture, education, health and welfare, public construction, and housing are only a few. Resources consumed for any goods may mean fewer available for other purposes or for private consumption and investment.

In theory, allocating resources should not be difficult. The Committee for Economic Development recently stated that decisions could be arrived at by answering the following questions:

Is the program necessary to enhance the security and welfare of our citizens? Can these needs be reasonably accommodated by the States and local governments or by private business? Is the expenditure worth more to the Nation than an equivalent reduction in tax rates? Can the program be undertaken with the available resources or will it simply add to existing shortages and increase prices? ²

In practice our national budgeting system is not adequate to allow clear decisions on these facts. The measurement of benefits is far from complete.

The comparison to private spending

In a boom or inflationary period, a major difficulty is that of weighing the value of projected governmental spending compared to that of leaving equivalent purchasing power in private hands. Some observers argue that when private spending is adequate, high governmental spending must be wasteful per se. In their opinion, the Government always spends too much. Because expenditures are paid for by taxes rather than out of an individual's own pocket, they expand too fast. On the theory that everybody's business is nobody's business, public money, they believe, is spent less efficiently. Increased values are always received for moneys spent by private decisions. Others disagree violently. The fact of high demand does not remove the need for proper spending priorities. The optimum point of spending for any dollar is not necessarily in either the public or private sphere. The very existence of governments is proof that some spending can always be done best in a collective manner.

Full employment of resources does mean, however, that spending cannot be justified by its secondary effects. These consequences are now inflationary and unwanted. The added welfare effects generated by public spending in periods of deflation are not now beneficial. Some programs justifiable on the basis of these secondary effects in other periods may have to be cut because of them during boom times.

The basic problem of adequately measuring the relative benefits remains. The fact that people are willing to pay for the resources to increase the average length of their private autos by a foot or two does not lessen the need for public highways or parking spaces. The advantages of public education received from larger and more numerous TV sets need not outweigh those obtainable from larger and more numerous schools. A splurge of office building does not reduce the value of decent houses.

This lack of accurate measures means that under our democratic system decisions as to the most valuable or efficient spending must remain primarily political—in the best sense of the term. The people through their votes make known their preferences. Economists and public administrators, by demonstrating the real costs of alternative policies, can aid them and their elected representatives in forming

² Committee for Economic Development, *Tax Reduction and Tax Reform—When and How* (New York, May 1957), p. 15.

proper judgments. Better data would narrow the limits of controversies, although they would not completely eliminate them.

The relative efficiency of different types of public spending

Policy problems in deflations are likely to be of a different type from those described above. Private and public spending are now not competitive, and increased public expenditures will be worthwhile for both their primary and secondary effects.

Early studies put most of their stress on stepping up the public-works program. The idea that high spending during deflations should be brought about by expanded programs of public construction and housing still enjoys wide acceptance. But is there any reason to believe that the public will benefit more by increasing spending in these two categories than elsewhere in the wide range of public programs? The answer seems to be "No."

Public works appeared especially desirable because they are durable. The Government ends up with useful goods to show for its money. Deficits could be justified as simply borrowing to invest, like any corporation. Furthermore, increased public construction might be merely an expansion of normal policy. Because expenditures made at other periods and under other circumstances, furnished proper benchmarks, efficiency could be judged more accurately.

Only gradually was it recognized that other types of spending might have equal or even greater value. Durability is not a sound basis for measuring the worth of an expenditure to the public. It makes little sense to build beautiful schools and then to close them because of unwillingness to pay the teachers to staff them. Defense expenditures, cut because of budget stringency, might well have a high priority if additional expenditures become possible. Money spent to feed hungry people is likely to offer a greater return than beautiful monuments.

Backlogs of needs

The discussion and analysis of the past 10 years has removed much of the fear that the scope of public spending could not be expanded in a deflation without spreading into inefficient areas. As an example, the backlog of public construction, over and above that which would be built at existing rates during the next 10 years, has been estimated as at least \$100 billion to \$150 billion (in 1957 dollars).³ Similarly large estimates exist for urban redevelopment and housing.

One might well ask why such huge backlogs do not disappear in the face of recent record levels of public construction. The reason is that effective economic demand falls far short of the projected needs. These estimates reflect the ideas of the experts formulating them on how much government expenditure it would take to raise the level of capital in their own areas of interest to some predetermined standard of adequacy, usually based on engineering, educational, health, or similar grounds. Under existing institutional and political pressures, we are unwilling to build up to these standards. Some fields lack a clear decision as to which level of government should attack the backlog. In other cases the fiscal ability is inadequate. Some are needs

³ R. Newcomb, *Public Works and Economic Stabilization, Problems in Antirecession Policy* (Committee for Economic Development, New York, 1954), and M. A. Edwards, *Requirements for State and Local Public Works Construction, Construction Review*, May 1955.

which the economy feels should rate a low priority in periods of high private investment. They may be desirable, but not in boom times.

Implicit in most of these statements is an assumption that in deflations many of the forces separating demand from need would disappear. Local fiscal difficulties would vanish as Federal aid came forth. Government expenditures would have an increased marginal utility, because instead of competing for resources, they would lead, through the multiplier, to the employment of otherwise wasted private means.

Finally, in a depression the sphere of legitimate public spending might broaden. This would be particularly true in the housing field, where the line between public and private has fluctuated widely with the existing economic and political climate.

Costs of institutional change

Another possible source of inefficiency arises if the cyclical fluctuation of expenditures creates heavy costs for institutional change.

For example, the present Board of Governors of the Federal Reserve System has objected strenuously to receiving instructions which would require them to consider the specific (or qualitative) results of their action in contrast to their overall (or quantitative) effects. Recalling that in the past when they used selective credit controls they were subject to much criticism and pressure, they recommend that if the country believes the present situation with respect to any market to be unsatisfactory, action should be taken by Congress or other branches of the Government, rather than by themselves. They concede that if particular markets are being exceptionally hard hit, methods of altering the situation could be devised, but they don't want the responsibility.

A vocal opposition refutes these Federal Reserve views. The cost of such institutional changes will be less than the gain. We do not abolish police or building departments because they are subject to pressure and at times create enemies by enforcing worthwhile laws. The popularity of the Federal Reserve Board is not necessarily a measure of its success.

A further possible source of inefficiency originates in the increased role which the Government must play if it intervenes to increase the level of construction in both a boom and possible deflation.

There has been much disagreement over whether or not the Government should attempt to hold back high demand in a booming but not inflationary period in order to save some for the future. Increased capacity has been needed to handle a backlog plus a high current level of demand. People worry that when this backlog is used up, the industry may have too much capacity. The resources attracted in the boom will be unemployed. This is the familiar case of over-expansion due to the acceleration principle. Many feel that no real problem exists. If a deflation occurs, governmental action can increase the demand.

But at this point, an institutional problem arises. Private demand has fluctuated widely in the past and probably will again. Is there a hidden cost in using government action to make up for the lack of such demand in a deflation? Would it be cheaper instead to have the Government hold back some of the demand in high periods?

A cost somewhat similar to the above is the possible inefficiency of having to expand and contract the governmental organization rapidly. Some feel that the Government should simply attempt to hold its expenditures as constant as possible, on the theory that any gains from spending at better times will be offset by the lowered organizational efficiency.

THE EFFECTIVENESS OF A PUBLIC CONSTRUCTION PROGRAM

The previous sections have discussed some of the problems of the efficiency to be lost or gained by expansions or contractions of public works. The remainder of this paper examines the second criterion—that of effectiveness. The effectiveness of a program depends on its purchasing or freeing the right resources in the appropriate period. Can a contracyclical policy succeed in raising and lowering demand in the correct places and at the proper times? ⁴

Forecasting

Any change in expenditure patterns to improve economic stability must be based on a forecast of economic conditions. Unfortunately, if, the economy moves in the opposite direction to that predicted, a worse situation will develop than if no shift in spending had been undertaken at all.

The record of forecasts made since the Employment Act of 1946 has been only fair. Shorter forecasts for 1 or 2 quarters have been better than the longer ones covering a year or more.

The consequence of failure to perfect forecasting skills is an increased relative effectiveness for spending which can be started and stopped rapidly and which can be tied to the more accurate short-run forecasts. If the forecasts prove wrong, the spending stream can be cut off. Public construction programs do not meet this condition. They are both slow to start and hard to stop once they get rolling. Forecasting has to be more exact and farseeing. If public construction programs had been undertaken to combat the recessions of 1948-49 and 1953-54, they would have poured out their funds after the recessions were over. Their primary effect would have been to interfere with later attempts to contain inflationary pressures.

The availability of resources

For an increased public spending to have the desired effects, it must hire resources being underutilized and avoid using resources already in short supply. The more homogeneous are resources and the greater their transferability, the higher will be the effectiveness of a program. Public construction and housing use rather specialized resources. Furthermore in many categories, they normally purchase a high proportion of the existing supply.

Tables 1 and 2 list the major resources used by new construction activity in 1956. They also show that widely different resources

⁴ Cf.: E. J. Howenstine, *Compensatory Public Works*, *Journal of Political Economy* (June 1951) and *Public Works Programmes and Full Employment*, *International Labor Review* (February 1956); *International Labor Office, Public Investment and Full Employment* (Montreal, 1946); S. J. Maisel, *Timing and Flexibility of a Public Works Program*, *Review of Economics and Statistics* (May 1949); Julius Margolis, *Public Works and Economic Stability*, *Journal of Political Economy* (August 1949); J. A. Maxwell, *Federal Grants and the Business Cycle* (National Bureau of Economic Research, 1952), and R. Newcomb, *op. cit.*

are required for an equal value of work in the major-building categories. Even a casual glance at the tables reveals that the various types of construction differ radically from each other. Still clearer is the fact that the resources used have little bearing on other areas of the economy which might be depressed, such as farming, textiles, autos, etc.

Examination of such data has led to rather pessimistic views on stabilizing value. An expansion of Government spending adequate to fill much of a gap in private demand if it merely multiplied existing programs would use far too many resources of some types and far too little of others.

Any expansion, to be of much use, would have to be carefully planned. While a program to utilize all unemployed resources of the construction industry could probably be worked out, it could not merely be a replication on a larger scale of existing public construction programs. Attempts to utilize resources unemployed in other industries would be far more difficult and would probably not be very successful.

TABLE 1.—Relationships of building materials required for specific types of construction in 1956

Material	Total in units	Estimated percentage distribution in 1956				Estimated consumption required for equal values of work in place (public works=100)				
		Public		Private		Public		Private		1956 average, all construction
		Works ¹	Building	Housing	Other	Works	Building	Housing	Other	
Lumber.....million board-feet..	20,700	<i>Percent</i> 10	<i>Percent</i> 6	<i>Percent</i> 54	<i>Percent</i> 30	100	160	317	209	228
Steel.....thousand tons.....	15,900	20	12	9	59	100	124	21	177	97
Wire nails and staples.....thousand tons.....	460	6	4	51	39	100	163	460	414	348
Asphalt roofing.....million squares.....	50	3	14	30	53	100	885	437	935	580
Brick.....million bricks.....	6,300	8	15	48	29	100	420	310	225	252
Clay sewer pipe.....thousand tons.....	2,000	77	2	16	5	100	5	10	4	25
Gypsum board and lath.....million square feet.....	4,700	1	6	81	12	100	2,086	7,230	1,317	3,456
Portland cement.....million barrels.....	260	51	6	12	30	100	26	12	35	38
Cast-iron pipe.....thousand tons.....	660	6	11	65	18	100	346	500	165	300

¹ Includes all public construction except building.

Source: U. S. Department of Commerce, Construction and Building Materials (March

1952). Table 3: U. S. Department of Labor, Value of New Construction Put in Place 1946-56 (revised May 1957).

TABLE 2.—*Relationships of labor required for specific types of construction in 1956*

Labor	Total man-hours (in millions)	Estimated percentage distribution in 1956				Estimated labor required for equal values of work in place (public works=100)				1956 average, all construction
		Public		Private		Public		Private		
		Works ¹	Building	Housing	Other	Works	Building	Housing	Other	
Skilled:		<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>					
Bricklayer.....	290	5	13	53	29	100	499	192	323	361
Carpenter.....	1,380	8	8	47	37	100	201	277	259	230
Electrician.....	200	11	13	20	56	100	231	87	293	169
Equipment operator.....	290	58	5	6	31	100	18	5	32	33
Ironworker.....	140	18	19	6	57	100	215	16	188	107
Lather.....	20	5	14	59	22	100	519	497	221	328
Painter.....	240	6	11	51	32	100	378	424	322	325
Pipefitter.....	140	10	19	4	67	100	403	18	421	202
Plasterer.....	100	1	10	63	26	100	1,686	2,485	1,216	1,535
Plumber.....	170	7	11	41	41	100	332	293	357	282
Sheet-metal worker.....	50	4	15	38	43	100	1,040	623	832	628
All other.....	290	24	12	15	49	100	1,106	32	122	81
Total.....	3,340	14	10	36	39	100	157	131	171	140
Semiskilled and unskilled:										
Laborer.....	1,250	24	9	22	45	100	75	46	112	80
All other.....	530	36	6	17	41	100	36	24	69	54
Total.....	1,780	27	8	21	44	100	60	37	95	70
Nonmanual.....	220	32	17	18	33	100	111	29	63	61
Grand total.....	5,340	19	10	30	41	100	108	79	127	101

¹ Includes all public construction except building.

Department of Labor Bulletin No. 1146, table 20, International Labor Review (February 1956) table I.

Administration and timing

The administration of public works programs is complex and time consuming. Public construction is a melange of Federal, State, and local responsibilities and authority. Housing is even more complex since it falls more completely in the sphere of private enterprise. Construction requires prior plans, surveys, investigations, and studies of needs and sites. In addition to blueprints and specifications, land must be acquired. Present legal methods are slow. Prior acquisition is usually difficult.

Work has been done on systems of prior planning of public works to cut the lag between the start of a program and expenditures. Results indicate that important savings in time are possible if enough work is done in advance. To date, however, progress in the speeding up of non-Federal programs has been slight.

Advance planning has failed because a really large-scale expansion would require a change in political and institutional relationships. States and localities have a perverse financial ability. They cannot finance appreciable expansions during contractions even if they so desire. Furthermore, their planning and engineering staffs are not equipped for advance planning. Increased responsibility for leadership, planning, and financial assistance in any depression would devolve on the Federal Government.

A new and different type of program would be even more necessary to permit enlargement of urban redevelopment and housing programs. Private demand in this sphere is almost certain to decline precipitously if adverse winds blow in the general economy. The small additional flexibility available under present programs by easing financial terms or other aids would not be sufficient to do much good.

The time patterns of public construction and housing programs vary widely even after a program has been started. In addition to planning and land problems, contracting delays may occur. Projects move toward completion at widely divergent rates. Work on soil conservation, roads, airports, levees, repairs and rehabilitation of existing buildings can be started and completed fairly rapidly. On the other hand, major engineering projects, large-scale buildings, and housing all move slowly.

These technical differences in timing, in resource use, and in administration all affect the successful planning of an anticyclical construction program. Most of these factors mean that it is more difficult to shape an effective program for public works than for other types of public spending. That is why so many who have looked into the possibility have been skeptical of the usefulness of a public works program.

On the other hand, Howenstine and Newcomb, who have spent the most time on these problems, are still relatively optimistic. They believe that, providing enough time and effort were put into its planning, an effective program could be developed. Newcomb has estimated that with existing techniques Federal construction spending could be expanded by about a third in a year. Even with preplanning and new institutional arrangements, the expansion of State and local spending would be somewhat slower. Still with adequate preparations, a public construction and housing program probably could

raise the level of spending in these fields by about a quarter at the end of a year. Expansion could then continue more rapidly.

This seems to indicate that expansions of public construction can be used primarily in cases of long contractions—when total demand stagnates and long-run programs are called for to raise the equilibrium spending level. The technical problems of shifting construction make it extremely difficult to coordinate it with programs aimed at stabilizing shorter employment fluctuations.

THE EFFECTIVENESS OF PROGRAMS TO CURB CONSTRUCTION

In contrast to improved knowledge of the factors involved in expanding public construction in a deflation, little progress has been made on theories applicable to inflationary periods.

We have already noted the inability to measure the relative inefficiency of cutting out particular spending items. Further disagreement exists over the effect of the proposed curtailments. What will happen if construction demand drops? Repercussions will be of two types: (a) The specific (micro) effects on costs, prices, and incomes in the industry itself; and (b) the overall (macro) results which depend not only upon these specific happenings but also on the interrelationships of demand and supply for the entire economy.

Specific effects

Few object to cutting back demand when construction resources are inadequate. Such inflationary situations should be halted. A possible alternative to halting demand would be increased action to augment supplies, but the few attempts along this line have not been very effective.

More controversy arises over attempts to lower demand when the resources in construction are merely fully employed or perhaps somewhat underemployed. This reflects the general analytical uncertainty as to the cause of recent inflationary tendencies. Two rather strong opposing points of view exist.

One holds that spiraling costs and prices in construction result from a very inelastic supply curve. When demand rises, prices are driven up. When demand falls, prices should fall. Any tendency for prices to rise is taken as a signal that construction's specific demand is too high for supplies. This then means that construction resources are inadequate and demand should be cut.

The opposition believes that rising prices in building have little to do with the specific demand and supply situation of the industry, but are simply the result of the general cost-push forces at work in the economy. They point to increases in steel prices with falling steel demand and to rising wages in industries with growing unemployment. They feel that holding back demand in this specific field will have but slight impact on the general forces causing the cost push.

They go further and state that under existing conditions a cut in building demand will lead to higher costs and prices. This they believe will occur because their concept of the supply curve for construction, and especially for housing, is one in which costs decrease with volume. Curtailing demand will raise costs and prices both immediately and far into the future. They point to many years when housing has greatly increased its production with slight or nonexistent

price rises. Housing's one experience with lower prices came with an increase in scale and a shift from a contract to an operative basis. Contract firms tended to minimize overhead, land development, and forward planning. The postwar period of sustained strong demand brought forward larger, stronger operative firms with lower costs. Because of problems of overhead and of land and community development, these firms need a lead time of assured demand. The uncertainty brought about by Government action to curtail demand has particularly penalized these firms with a larger planning horizon and more future commitments. The result has been to raise costs by hindering or removing the most efficient type of producers.

Overall effects

A policy has also been suggested of lowering demand in construction as a means of combating the general inflationary situation. Here the issue is not what happens to building prices, but how spending in this area affects other demand. If surplus resources exist in the housing field, would it be improper to employ them on the assumption that any additional spending would increase the total pressure on the economy?

The overall inflationary effect of spending in a specific field depends on the source of funds and on the multiplier. Construction paid for by creating purchasing power will have an inflationary effect as it spills over from its initial spending purpose into other areas. However, if the purchasing power already exists and is simply taken from other uses, an inflationary impact need not occur. Its effect on prices will depend on the total consequences of the expenditures in their new channels as contrasted to how this money would have been spent if not taxed or borrowed to increase construction demand. (The results will, of course, be more inflationary than if the Government had taken the purchasing power and saved it.)

Provided there are underutilized resources in the industry or its supply curve leads to falling prices with increased volume, spending money for housing even in a period of high aggregate demand is likely to be deflationary. The purchasing power absorbed cuts back on the demand for all other goods. This money instead employs resources which otherwise would be wasted (assuming they could not easily be moved into high-demand areas). The result is to augment the total amount to goods produced. Aggregate prices will fall because total purchases have not been increased while the total utilized supply has.

Another erroneous impression is that there is a necessary difference between the effect of purchasing power taken through taxes and that borrowed. Provided the Federal Reserve maintains a constant level of credit (and contrary to their statements), borrowing to increase housing demand by the Government may have a deflationary effect.⁵ For example, when the Federal National Mortgage Association borrows in the money market to lend to house purchasers, this may raise interest rates and stop other potential borrowers. The available funds might, if not borrowed, have augmented consumer expenditures or business purchases of durables. Expenditures in areas with shorter supplies could lead to larger price increases.

⁵ U. S. Senate Subcommittee on Housing of the Senate Banking and Currency Committee. Hearings on Housing Amendments of 1957 (85th Cong., 2d sess.), p. 279.

The overall results will depend also on the effectiveness with which the funds are taken. But little effort has been made to judge the relative costs of using programs of taxes, borrowing, or qualitative monetary controls to obtain funds for specific fields, even though each may have definite advantages in a certain situation. If important differences prevail in the secondary effects of money spent in separate fields, then these must also be taken into account. No obvious divergent secondary effects appear to exist, however.

ACTUAL MOVEMENTS OF EXPENDITURES

The history of shifting Government expenditures in the postwar period bears out the previous analysis. There has been a great deal of difficulty in determining when it would be efficient to expand or cut public construction. As a result, with the exception of the housing field, only mild action has been taken to promote stability by varying expenditures in this sphere. The few attempts have not been very effective.

In the recession of 1948-49, increased Government spending and decreased Government taxes played a significant role in maintaining stability. Because of poor forecasting, however, most of this occurred in an unplanned manner. Moreover, as would be expected in a short recession, the best results were achieved by nonconstruction items.

The excess of Government "withdrawals from" over "additions to" the income stream dropped at an annual rate of \$13.3 billion between the first halves of 1948 and 1949, the period when such a drop was most desirable. Of this sum income taxes decreased by \$4.3 billion, and \$1.6 billion was from other falls in revenue. The largest increase in spending, at a rate of \$2.4 billion a year, occurred in payments to farmers through loans and crop purchases. Purchases for foreign aid went up at the rate of \$2.1 billion. Other increases totaling \$2.9 billion were spread among unemployment compensation, wages, higher defense spending, and a few miscellaneous categories. During this most critical period, public construction expanded somewhat, but at less than its normal postwar recovery rate. Housing slumped. As a result, the desired expansionary effects of public construction and housing were less than normal.

Again in the recession of 1953-54, public construction played only a slight role in halting the decline. In this period, although the President apparently issued instructions to speed up public works, Federal construction actually fell.⁶ State and local construction expanded slightly, while housing did make an important contribution to income. Other Federal expenditures contracted sharply. The sharp fall in military expenditures was, of course, one of the major causes of the general decline.

One other lesson can be drawn from the postwar experience. In the initial planning under the Employment Act of 1946, it was hoped that public housing and urban redevelopment could make important contributions to anticyclical policy. The Housing Act of 1949 contained specific authority for the President to speed up these programs if necessary to promote stability.

⁶ Cf., the article by R. J. Donovan, *New York Herald Tribune*, May 4, 1956.

Table 3 shows the time required to complete expenditures of the first year's authorizations under this act. From this record, there appears to be slight likelihood that these items could become an important anticyclical device. Redevelopment was a brand new program that had to set up new organizations and establish new procedures. Contracts for the spending of the first year's authorizations of Federal grants took over 4 years to write, and the period for contracting loans was more than 7½ years. Over 8 years elapsed before the funds were finally disbursed. Clearly, this time will be cut in the future if the agencies stay in operation. Even so, considerable time must elapse between authorizations and contract approvals. Furthermore, the average lag between contract and expenditure, which depends more on technical problems, was from 2 to 3 years. Only one project was actually completed in the program's first 8 years.

TABLE 3.—*Time to complete 1st year's program authorized under the Housing Act of 1949*

	Years from passage of act	
	Average (median)	Total
Public housing (135,000 dwelling units): ¹		
Put under construction.....	2.0	3.0
Construction completed.....	3.7	4.8
Urban redevelopment:		
Capital grants (\$100,000,000):		
Contracts authorized.....	3.3	4.3
Grants disbursed.....	6.0	8.1
Project loans (\$250,000,000):		
Contracts authorized.....	5.1	7.5
Grants disbursed.....	7.2	8.5

¹ Program was delayed 2 to 5 months by Korean war.

² Estimated.

Source: U. S. Housing and Home Finance Agency, Housing Statistics.

Because the housing program was actually in operation, the initial steps for this program went much faster. Even so, it was about 4½ years (correcting for the delay of Korea) from authorization to completion of the first year's program. The physical construction lag was about 20 months from start to completion of construction.

These programs seem to show again that public construction cannot be speeded up so as to increase stability in any but fairly long, severe depressions. Since the additional efficiency of these programs is also in doubt, recent policy statements putting greater stress on adjustments of other types of Government spending and receipts seem sensible.