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# REGULARIZATION OF FIXED INVESTMENT IN THE BUILDING MATERIALS INDUSTRY

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REGULARIZATION of capital investment appears offhand to be a very desirable management objective in the highly diversified and far-flung building materials industry. Public interest in efforts to level the peaks and fill in the deepest valleys of national economic activity has mounted in recent years. Business managements, too, quite naturally would be pleased if some practical method, free of regimentation, could be found to minimize economic swings, particularly on the low side. In this connection, business managements already have given a great deal of thought to greater stabilization and what they actually can do to achieve it.

Consideration of regularization of capital investment as a specific policy objective, however, raises many perplexing questions in the minds of individual-company executives. Some believe that it would be incompatible with the operation of our profit and loss system. Some are convinced that predominant attention to regularization of fixed investment would soon be reflected in reduced productivity and lost incentive to expand. This eventually would mean lower output as well as reduced living standards across the country. There is considerable doubt that our complex economy could be stabilized effectively through any program to promote greater regularity in capital investment.

When the desirability and feasibility of greater regularization of fixed capital expenditures are carefully considered by executives in the building materials field, several pointed conclusions almost invariably emerge:

1. The building materials "industry" is too heterogeneous to permit accurate appraisal of regularization potentials (or almost anything else). This is because of the innumerable types of products involved in construction, the widespread use of raw materials cutting across virtually all manufactures and commodities, and the myriad of companies represented—ranging, for example, from the marginal sawmill operator to the large-scale, diversified producer of highly complex electronic controls.

2. Greater regularization of investment requires sooner or later

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some form of concerted action by producers and/or more government controls.<sup>1</sup> Either of these would weaken competition, which is absolutely indispensable to assure increasing productive efficiency and better goods and services.

3. There can be no real assurance that in practice a determined policy of greater regularization of capital investment actually would lead to more economic stability. A strict regularization policy might promote seriously disrupting short-term adjustments and introduce considerable frustration in management planning as well. Companies could not be expected to suddenly curtail or to sharply expand their capital outlays whenever the regularization objective dictated a reversal of expenditure policy.

4. Product development, highly dependent upon scientific research, cannot be timed with the precision needed to meet the requirements implied by greater regularization of investment.

5. Capital for investment in new facilities is usually available only in prosperous times. High taxes seriously limit not only what amounts can be spent during periods of peak activity but also the extent to which capital can be "carried over" for use in more depressed times, a prerequisite to greater regularization of fixed investment.

6. Persistent action by individual companies for greater stability in new plant and equipment expenditures unquestionably would reduce risk taking and in time lead to an "average" level of investment lower than that to be expected when profit is the primary motivation.

7. Any policy intended to stabilize capital expenditures presupposes much more accurate forecasts of future business conditions, including construction activity, than have been developed so far by private business or government. Nor are such forecasts likely to become available in the future.

<sup>1</sup> M. G. de Chazeau observes that greater regularization of fixed investment should be considered apart from "concerted action" by industry or the "direction of some central government agency." This would be highly desirable if indeed either or both could be avoided in developing an effective program of greater stability in capital expenditures. For the reasons developed subsequently, there appears at the present time to be insufficient individual-company self-interest to lend support to a strong uncoordinated effort toward greater regularization of fixed investment. The fundamental question is how much greater regularization must be achieved to be significant. Obviously, some limited amount can be gained voluntarily and independently, but if any noticeable results across industry are desired, a determined program organized by private or public interests would seem almost inescapable.

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8. Managements among the largest building materials companies are particularly conscious of the general problem of economic stability. As a matter of policy, they continually strive to reduce wide variations in production and employment. Individual company managements are making progress toward these ends by such direct and tangible means as product diversification, careful control of inventories, sales promotions, and production control schedules, rather than by such indirect efforts as increased regularization of fixed investment.

### *The Role of the Individual Company*

Manufacturers of all types of building materials number in the tens of thousands. While these companies are subject to the same general economic influences, they face an infinite variety of problems, depending upon the precise nature and end uses of their products. Some building materials, such as cement and sheathing, enter into the early phases of construction, while many others, such as hardware and floor coverings, find use in the final building stages. Many products, such as glass and insulation, are used outside, as well as within, the building field.

In view of these heterogeneous conditions, almost any regularization proposal for the "building materials industry" is likely to raise grave doubts among producers. Their "community of interest" is far less than is commonly supposed. To a greater extent than in many other lines of business, survival is dependent upon management's ability to meet challenging day-to-day developments. These involve not only sharp variations in demand and at times intense competition, but also the inevitable dislocations that result from government efforts to use the building industry as a contracyclical force in the national economy.

Company executives, therefore, understandably judge such a broad objective as regularization of fixed capital investment as exceedingly difficult to attain at best, and particularly at the individual-company level. Stability in capital expenditures cannot be an end in itself for individual companies. Managements see this goal as secondary to the vigorous pursuit of earnings, which means taking full advantage of opportunities for profitable investment at any time. Any other course of action, it is believed, would be a dereliction of management responsibilities.

If the objective of greater regularization of fixed investment is attainable, there is good reason to believe that eventually it cannot

be disassociated from some form of concerted action by producers, which would be highly undesirable for both the public and building materials producers generally, or further government regulation of such a far-reaching nature as to be incompatible with our system of enterprise.

One of the most fundamental motivations behind capital investment planning by individual-company managements is the desire to "get the jump" on competitors and above all to avoid falling behind in market position relative to competitors. Here is a continuing driving force found widely among executives in the companies contributing to the most dynamic growth and progress in the field. While in practice capital investments in building materials plants generally come in waves, nevertheless individual-company management decisions are controlling, rather than the concerted actions of managements of companies selling in the same markets.

For competitive-market reasons, building materials producers have always tended to make fairly simultaneous investment decisions. This mass tendency to invest or not to invest lies at the heart of the regularization problem of plant and equipment expenditures. Closely related is the fact that most management decisions tend to be geared to fairly short-run market expectations. More longer-range planning is now being undertaken, but no fundamental change is anticipated in management willingness to plan several years ahead so long as the conviction persists that sharp and extended cycles in building will recur.<sup>2</sup>

It follows that greater regularization of fixed investment among building materials producers would require that managements of at least the largest companies collectively "read" the economic future almost entirely in terms of general stability or gradual growth, and that alteration of present dominant motivations of getting or keeping ahead of competition take place to assure that no individual firm pursues an "independent" course of action that might touch off a new wave of competitive capital investment expenditures. In other

<sup>2</sup> Although many capital expenditures for the manufacture of building materials involve facilities that admittedly will remain in service for many years, present management tendencies are to authorize such large investments almost exclusively when short-term earnings prospects are quite favorable. Moreover, there must be an expected opportunity to recapture the funds invested in a comparatively few years. As Professor de Chazeau correctly states, so long as this "short-run" investment attitude persists, the possibilities for greater regularization are severely limited. Only greater confidence in long-run business prospects could bring about a change in management thinking along these lines.

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words, under present conditions, there seems to be little reason to expect that greater regularization of fixed investment among building materials producers generally could "just happen." Some strong, and at the moment highly remote, consensus that such a policy would be individually (and collectively) profitable would be needed. In isolated cases, individual companies might be expected to adhere to a policy of greater regularization of fixed investment expenditures, possibly because of deep public interest or because such a policy would be consistent with some other management objective. But no voluntary course of action could be expected among building materials manufacturers generally, because they simply cannot see that it would be to their practical advantage. Nor is it easily demonstrated that it would be, particularly in the short run, which necessarily is of greatest concern to business managements.

Collusive efforts, of course, would be contrary to both short- and long-term public interest because they perpetuate inefficiencies and stifle innovations. However well intended, some suggested government policies directed toward greater regularization of investment by the individual firm—e.g., taxes on inventory changes and gross investment—almost inevitably would force more industrial management decisions into the hands of government administrators. The recent overwhelming experience in defense controls clearly demonstrates the serious shortcomings of further moves in this direction. Rather clearly, such proposals also would lead to gross inequities among individual companies. As already suggested, the "average company" has little meaning in a field of such enormous variation as building materials. The problems to be faced in adjusting legislative rulings to cover different growth trends among individual companies alone would be formidable. Serious administrative complications, widespread management frustrations, and dangerous implications for our system of enterprise would seem inescapable.<sup>3</sup>

<sup>3</sup> Many of the foregoing observations have been challenged by D. G. Tyndall (see Comments, below) as based upon an "unnecessarily restricted frame of reference." Such criticism reflects a lack of appreciation of the practical limitations of applying broad government policy objectives to such a complex area of management decision-making as capital investment. It should be pointed out that capital investment is one of the principal areas of management responsibility that still remain relatively free of government regulation or other direct interference, except tax legislation. Within the area of fixed investment lies the critical spark of risk-taking and initiative, which activates our economic system. This is no small matter, to be tampered with casually. As vitally important to our economy as greater stability is, the need for continuing dynamic growth

*Regularization: Theory and Practice*

The fragmentary data available show that capital investment by building materials companies has followed an irregular pattern over the years. It is far from clear, however, that in actual practice strong, positive action by individual companies to regularize new plant and equipment expenditures would necessarily minimize instability; or, even if more "stability" could be achieved, that it would be worth the eventual cost to the economy in reduced incentive to expand and, consequently, in lowered actual as well as potential production and living standards.

Ideally, a steadily advancing level of capital expenditures, in balance with the needs of the economy, seems highly desirable. A more even flow of capital investment suggests the possibility of better company financial and budgetary control and better use of the staff concerned with planning and executing new capital investment plans. But this ideal objective, viewed realistically, appears virtually impossible to reach. This is simply because it has yet to be demonstrated that regularization and "dynamic" secular growth—essential to keeping any company competitively strong or a nation always sufficiently powerful to resist aggression—are mutually attainable over any extended period of time.

It is hard to judge what criteria could be used by individual companies or the industry to time investment decisions and to determine the size of allowable expenditures under any general regularization objective. On the one hand, no attempt might be made to draw up a guide that individual managements could use to regularize their investment plans. Any accomplishments toward regularization under these circumstances would seem doubtful. On the other hand, some guiding principles (i.e., for determining when "ceiling" or "bottom" limits had been reached) might be developed privately or by government. How such principles or controls could be adapted to the heterogeneous building materials field is obscure, to say the least.

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is at least equally important. Population growth naturally assures some continued expansion of sales of building materials and virtually all other goods and services over the years ahead. But future significant general advances in living standards, as well as the ability of the nation to have both "guns and butter" or to win another war almost certainly will depend fundamentally upon the wisdom of capital investment decisions. It would be unfortunate indeed if regularization—as important as it is—were pursued as a national objective to the detriment of what is in the country's still more fundamental long-run self-interest—dynamic growth.

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If such devices touched off abrupt changes in expenditure policies from time to time, undoubtedly they would have highly disrupting—rather than regularizing—effects upon individual companies and the nation generally. “Getting under the wire” before a “ceiling” point had been reached, “jumping the gun” at the beginning of another period of expansion, and the need for policy exceptions to allow uninterrupted capital outlays for “growth” products or those deemed essential on some other grounds would all be major deterrents to regularization efforts.

Perhaps an even more fundamental shortcoming of attempts to smooth the flow of capital investment would be the frustrating effect upon managements trying to operate their businesses. Greater stability in capital outlays obviously would mean reduced expenditures in boom periods and larger replacement-expansion expenditures in depressed periods. No one can overlook the fact that, rightly or wrongly, *such policies are contrary to the “traditional” and “natural” instincts and attitudes of business managements.* In any field, the prospects for mass action contrary to short-run self-interest seldom can be considered bright.

In many respects, more difficulty can be expected in trying to restrain capital expenditures during upswing periods than in stimulating investment at times of low activity. Among business executives, the charge of “having missed the boat” is far more serious than having “made a common mistake” along with competitors. It is hard to visualize many executives who, as a matter of policy, would feel justified in foregoing or postponing capital expenditures that offer immediate prospects of an attractive return. This would be particularly true if there were any danger that a competitor might step in and take advantage of the same opportunity. In other words, the alternatives would seem to be freedom for managements to act upon capital expenditure plans, and a fairly rigid system of controlled investment. The outlook for an acceptable middle ground position now seems rather dim.

How long any management group would be willing to forego needed and desired capital investment outlays, under other than emergency conditions, without losing some incentive to push through such plans is open to question. It would seem reasonable to expect, however, that either “voluntary” or “imposed” roadblocks to capital investment would in time destroy part of the present strong urge to modernize and enlarge productive facilities. To the extent that such incentive is reduced, there would obviously be a permanent loss in

the amount of new plant and equipment, with resultant depressing effects upon future levels of output and consumer living standards.

*Regularization Presupposes Accurate Forecasting*

Not only does the restraint of capital expenditures during expanding periods of business pose many far-reaching problems for individual-company managements and the national economy, but there are also serious questions to be faced in attempting to stimulate increased investment when sales volumes are low. Financial stringencies, abundant idle capacity, the risk of obsolescence, and the continued expectation of still lower costs all dampen enthusiasm for large capital outlays in depressed periods, regardless of the lessons to be learned from history.

In a real sense, the key to well-maintained expenditures for plant and equipment is the degree of confidence with which managements face future sales and earnings prospects. Confidence in the future does not require continued boom conditions, but it does imply some fairly definite indication that any downturn will be followed by a revival within a reasonably short period of time.

The timing of cyclical movements obviously is crucial to investment planning. A "few" years or "several" months may seem insignificant periods to the general economic analyst studying the national problem of instability at long range, but these same periods tend to be "long" for most managements. This difference in viewpoint is apparent when it is realized that most building materials companies would exhaust their liquid assets in three months or less in the face of a deep sales decline; similarly, maintenance of full payrolls without any sales income at all would force liquidation of most company assets in eighteen to thirty months.

Under these circumstances, most building materials managements necessarily keep their eye on short-run developments, especially current and near-term earnings. While producers make some efforts to plan capital investments on the basis of longer-run expectations, they recognize that an error in timing judgment could prove disastrous.

To regularize capital expenditures in any precise sense obviously would require quite accurate forecasts of future sales demand, and also sufficient management experience with such "reliable" forecasts as to warrant their wholehearted use in planning new plant and equipment expenditures. Neither condition seems likely in the foreseeable future.

Individual company managements, of course, make and use their own forecasts of future trends, but the explicit purpose of such forecasts is to permit prompt and informative decisions on pending matters. It is not likely that managements will wait—in the interest of capital investment regularization—for either building or general business activity to slow down or to improve before they decide to act on a proposed expenditure program. For the present at least, building materials managements would not feel justified in linking detailed investment plans as rigidly to forecasts of the uncertain longer-run future as regularization would seem to require. There would be particularly strong resistance to any efforts to tie investment decisions, voluntarily or otherwise, to forecasts made outside the company, and especially those influenced or dictated by competitors or government officials.

*Some Uncontrollable Influences upon Capital Expenditures*

Capital outlays tend to fluctuate above the bare minimum of annual depreciation allowances, especially with today's exceedingly high replacement costs. Expenditures for expansion purposes usually are linked closely to such questions as: Is existing capacity adequate to meet definitely foreseeable demands? Is there an opportunity for greater production efficiency? Can product improvements or new products be introduced? Should facilities of other companies be acquired?

Because the answers to these questions vary sharply from time to time, capital expenditures often are not readily predictable, by managements or anyone else, even within fairly broad time limits. First, managements have relatively little control over the timing of research developments. Only sheer duplication of existing facilities, not a typical situation, would eliminate the need for research to precede a capital investment program. Research directors are constantly under pressure from managements to set deadlines for completion of specific projects, but such predictions necessarily are subject to wide ranges of error. From a capital investment standpoint, the critical need is to try to foresee when a research development will reach the stage preparatory to full-scale factory operation. In the building materials field, numerous research discoveries have occurred well ahead of "schedule," forcing a sharp acceleration in capital expenditure programs. Similarly, failures of "promising" pilot-scale developments to meet performance tests for mass production and general market acceptance have delayed capital expenditures.

Second, the availability of capital often is an important deterrent to precise timing of actual plant and equipment expenditures. Post-war developments in the capital markets have forced managements to rely increasingly upon internal sources of funds, with the result that current earnings directly influence to a very large degree the level of capital expenditures. In other words, managements are now heavily dependent upon prosperous times for capital, a situation that obviously works against any policy of regularization of capital investment. This is particularly true in view of present high tax rates, which, in combination with inflated costs of capital goods, leave relatively little capital for potential use during periods of low activity.

Third, under semi-war conditions highly uncertain supplies of materials and shifting market outlets, which are directly attributable to government policies and foreign restrictions, also may change management plans for the timing and amount of capital expenditures. Not only do shortages of machinery and materials from time to time delay many specific projects, but also they may create entirely new capital expenditure projects to produce substitute products.

Fourth, there are capital investment programs which become necessary because of unexpected competitive developments or market trends. Such market "surprises" may reflect either previous errors in management judgment or simply strikingly new developments. Whatever the cause, they call for speedy action and new capital investments by alert managements anxious to offset their market disadvantages at the earliest possible moment.

### *Management Efforts to Reduce Economic Instability*

The foregoing analysis has pointed out a number of serious shortcomings in any program of action intended to increase the regularization of capital investment by building materials manufacturers. It should not be inferred from what has been said, however, that building materials managements are neither willing nor able to take positive steps to promote greater stability. The record is clearly to the contrary.

To some extent, "stabilization" as a broad objective accompanies mature growth in industry as well as in many individuals. When a business organization obtains an established position in any industry, there is the almost instinctive minimum desire to maintain that position as well as the confidence of the individuals, financial insti-

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tutions, and others that have assisted the company over the years. It is not surprising, therefore, that larger, well-established companies tend to show greater willingness to assume responsibility for stability in employment and general operations than smaller organizations.

While a determined policy of regularization of new plant and equipment expenditures appears to many building materials executives to be an impractical, indirect, and potentially dangerous method of lessening variations in economic activity, several other more direct means seem more fruitful: careful planning of production schedules, flexible inventory policies, sales and promotion policies readily adaptable to changes in demand, cost reduction budgeting, product diversification, and a continuing appraisal of future prospects to reduce the need for sudden changes in key policy matters.

Building materials producers have made considerable progress in recent years in over-all production control, so that raw materials, productive capacity, manpower, output rates, and shipments are coordinated to minimize shutdowns as well as intermittent periods of overtime. Such careful scheduling obviously has the advantage of promoting steadier employment and payrolls, and is much more economical than the earlier methods of planning operations on a hand-to-mouth basis from incoming orders.

Inventories play an important part in any program of stabilization at the company level. Although the bulkiness of many building materials limits the size of stocks that can be carried, inventories can be used to "cushion" the effect of sharp variations in orders for seasonal or other reasons.

The Armstrong Cork Company for many years has recognized that sales to distributors are really not "final" sales. Only when the ultimate customer purchases and pays for the goods can the sales be considered final. As a result, it has long been a management policy to watch very carefully inventories of Armstrong products in the hands of distributors in order to gear production schedules to "final" rather than "intermediate" sales. These developing policies and practices, requiring close cooperation throughout distribution and production channels, took many years to build up the necessary understanding and confidence as well as the data-collection system upon which the program rests.

Experience has shown that an individual company can influence, at times markedly, the demand for its products by well-timed and vigorous sales promotions. Constant attention to sales trends and

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prospects, bulwarked by well-planned advertising and promotion programs ready for use, unquestionably helps stabilize production and employment within an individual company, and thus contributes to general stability as well.

Every well-managed organization, particularly under keenly competitive selling conditions, continually searches for ways to reduce costs in order to strengthen its position in the market and thus to lessen the impact of sharp cutbacks in its operations. Some firms, such as the Armstrong Cork Company, plan for cost reductions on a budget basis. This management device requires that stipulated, reasonable amounts of cost reductions be achieved by production and allied personnel during the budget period. Since the ranking production executive is in charge of cost reduction work, he assumes general responsibility for a never-ending appraisal of the savings that can be made by replacement and modernization of existing facilities.

The increasing diversity of manufactures within companies across American industry, and particularly in the field of building materials, is direct evidence of management efforts to stabilize over-all company operations. The severe variations in demand for building materials over the years have led to extensive diversification of products among many individual companies, clouding still further any meaning that might be attached to the "building materials industry." While admittedly the addition of new, less cyclically and seasonally vulnerable products to a company line cannot be expected to alter the variability of demand for individual building material items, the expected end result is more stabilized operations for the whole company. As a specific illustration, the Armstrong Cork Company entered the glass business and enlarged its closure-making capacity in the late 1930's to reduce its total corporate exposure to the wide variations in sales of products having a primary end use in construction.

So long as the profit incentive remains strong, it can be expected that aggressive managements will seek opportunities for gain by carrying out plans to improve products, develop new ones, enter new fields, and in general accept calculated risks as pioneers in a wide variety of markets. The resultant benefits to the public are obvious. The almost instinctive desire, for example, to "buy low" in order to "sell high" or to "get the jump on competition" places a great premium on advance planning because of tangible prospects of profit. By contrast, planning on the basis of regularization of

capital investment would introduce the further uncertainty of an interim waiting period. This would take the form either of a postponement of a desired expenditure that otherwise could be expected to net an immediate profit, or a calculated "postponement" of a desired profit by making a capital expenditure when the level of demand does not require the outlay for new manufacturing facilities.

### *The Outlook*

Undoubtedly recent record boom years have influenced general thinking on the matter of economic stabilization to the point where the problem of deflation seems somewhat less acute to many people than it did during the 1930's or at the close of World War II. Certainly, other problems have attracted more immediate attention among building materials managements during the past few years. There is no conviction, however, that the "building cycle" has disappeared.

Currently building materials executives are becoming increasingly concerned over sales prospects. There also looms the possibility of a further, more severe adjustment (e.g., in 1954-1956) whenever the national boom in defense and capital expenditures begins to taper off noticeably. If these weaknesses appear, building materials managements will undoubtedly make full use of the methods just outlined to stimulate their sales and production.

There is now some preliminary evidence of planning of capital outlays to be undertaken in anticipation of the next cyclical upswing in demand following the widely expected intervening period of decline ahead if all-out war is avoided. The almost certain upsurge in family formations later in this decade and in the early 1960's, because of very high birth rates since 1940, provides a more definite basis for longer-range planning of fixed investment than we have had at any time in several decades. Consequently, the prospects now are for somewhat greater regularization of capital expenditures among building materials manufacturers in the years ahead, regardless of the success of any general program in bringing about more stability in such outlays on some other grounds.<sup>4</sup> Basic thinking

<sup>4</sup> If actually achieved, such regularization will be the result of decisions of managements of individual companies acting in their own self-interest. This obviously will be the ideal situation that Professor de Chazeau visualizes. It should be fully recognized, however, that to the extent that greater regularization occurs, it will be the result of a basic change in the economic environment and not in the attitudes of business managements making capital expenditures.

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among building materials managements, however, still stresses "offsetting" or "making the best" of the seemingly inevitable cyclical variations in construction and business; rather than action to achieve greater economic stabilization by such indirect means as regularization of capital investment.

Individual-company managements deem their decisions too insignificant, and national stability too dependent upon many variables more complex than capital expenditures, to devote more than secondary attention to such indirect stabilizing factors as regularization of capital investment. There is firm conviction that the future of an individual company as well as the national economy will continue to be promising so long as incentive—to produce, to take risks, and to expand—is preserved. If the principal objective of public and private action becomes stabilization, the outlook would seem to be far less promising.

In some respects the future alternatives may be these: a somewhat irregular upward trend, with real opportunities for individual company gains along the way; versus a more regular pattern of activity averaging at a lower level, with reduced incentive and more limitations on freedom for even the most prudent action. If so, it is not difficult to foretell which alternative building materials executives would favor.

## C O M M E N T

DAVID GORDON TYNDALL, American President Lines

Mr. Hoadley makes a strong case for his conclusion that greater regularization of business investment "would soon be reflected in reduced productivity and lost incentive to expand." It should be emphasized, however, that his conclusion is valid only within the unnecessarily restricted frame of reference which he employs, a frame of reference that would exclude many of the proposals put forward later by Professor Hart. It is not true of many of these proposals (e.g., a tax on inventory changes, or a tax on gross investment) that they would weaken competition. On the contrary, were such proposals moderately effective in reducing cyclical instability, many of the strongest pressures now forcing businesses into non-

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*Hence, there is no reason to alter the views presented at the outset, namely, that regularization per se cannot be a primary objective of managements among building materials companies.*

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competitive lines of action would be greatly weakened. Nor would the results of such proposals be to reduce average investment over the cycle. Only if greater stability reduced the need for large amounts of capacity that, though required for peak operations, would lie idle for most of its useful life, would investment fall off. Such a reduction would be desirable, but, in any case, it would almost certainly be outweighed by the increased demand for investment goods due to the greater total output over the cycle. Regularization of business investment induced by collusive action of business or by detailed direct controls of government might well have the effects which Hoadley envisages, but there are other alternatives which would not produce such effects.

