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PROMOTING STEADIER OUTPUT AND SALES

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CHAMBER OF COMMERCE OF THE UNITED STATES

BECAUSE capital investment is among the most volatile components of economic activity, business cycle research has concentrated most heavily on this aspect of economic instability. The "durable" character of capital investment makes replacements and new capital investment postponable.

Has this focus been accompanied by inadequate research on other lines of approach? Can business management take any effective anticyclical steps through policies relating to the product mix, research and product development, pricing, advertising, and other factors? If so, what business policies are most effective once a contraction has set in? What policies during prosperous times will help to prevent contraction from setting in? It is to these questions that the exploration in this paper is directed.[1]

It has generally been assumed that when markets soften and demand curves shift downward, there is not much that the individual business can do to prevent such a shift. Is this assumption valid? Is this a complete statement of the problem? Is it inevitable that the demand curve will shift downward?

Business management does not wholly accept the assumption that markets must be left to themselves. Conferences of businessmen, whether within the local community or on some broader regional or national basis, whether of a trade association or more heterogeneous in character, are constantly concerned with "the business outlook." Rarely do these groups meet for a day's session without some time being set aside for a prognosis of the economic outlook. Economists are in demand as speakers and analysts. These forecasting sessions are among the best attended. If the speaker can make suggestions as to how to avoid a downturn or as to what can be done to maintain

[1] This does not minimize the importance of continuity of investment. As David McCord Wright has said: "But *investment* is the basic problem. Measures to stabilize consumption (public works, unbalanced budgets, etc.) may indeed keep the slump from getting worse. But they are after all mere first aid, that is, if we are not just trying to smuggle socialism in by the back door. Until growth once more gets under way and with it new investment, there cannot be a spontaneous recovery of the private economy." *Capitalism*, McGraw-Hill, 1951, p. 205.

business volume, he is listened to avidly.[2] The businessman does not regard himself wholly as a victim of blind economic forces. He knows that he helps to shape these forces and that he has some power to adapt his operations to them. Widespread recognition of, and continuous alertness to, the fact that business volume may contract as well as expand may serve as a stabilizing force. More and more companies are adding economists to their staffs.

Patient, persistent, and more extensive analysis by business executives, by the trade and business press, and by business economists of business and economic developments both within the economy as a whole and within a specific industry should be on the side of greater stability. The enormous growth of business and economic statistics provides the basis for a much better grasp of the economic terrain, and extensive analysis and use of them may be expected to help dampen excessive and unsustainable booms.

Business management's horizon has shifted and broadened in the last generation. Formerly, company annual reports were largely confined to accounting data with a minimum of text. Today, annual reports, especially those of the larger and expanding companies, generally devote considerable space to a broad range of economic and political considerations: earnings, dividends, and reserves, including special reserves; buyers, consumers, and markets; research and new product development; expansion plans; and frequently community relations. Business management experiences the tug of many forces that affect its operations and its future. The impact of company policies and operations upon the community where the executives work and live is in the forefront of considerations.[3]

Continuity of production with a minimum of fluctuations is placed high in the field of objectives. The search for ways and means of attaining regularity of operations ranks high.

Regardless of what evidence can be marshalled to show that man-

[2] That universities give more attention to training economists for business employment and that business executives utilize more economists have been suggested by the Chamber of Commerce of the United States. See *Business Management and Economic Analysis*, 1951.

[3] Henry S. Dennison, president of the Dennison Manufacturing Company (which has a thirty-year record of attempting stabilization), stated before the American Economic Association: "In sum, the central concept of *sustained* growth and such ideals as dependable merchandise, man-to-man relations with our employees, election of directors by the managerial group, mutual interests with customers and suppliers, and fair return to investors have come to form the pattern or frame of reference within which decisions are made." *Proceedings*, Sixty-third Annual Meeting, American Economic Association, May 1951, p. 99.

agement has taken anticyclical steps, this attitude of mind on the part of a growing number of business executives is itself a fact of some importance. Even if the results to date are unsubstantial or inconclusive, this does not necessarily foretell what may, or could, be in prospect.

Seasonal and Other Short-Run Instability

Business management generally does not make the clear-cut distinction between seasonal and other short-run fluctuations, on the one hand, and cyclical fluctuations, on the other, that is made by the business cycle researcher. The businessman does not regard the break between the two to be as sharp as it seems to the student of economic instability. This may be advantageous as well as disadvantageous.

Considerable progress, and in many lines outstanding progress, has been made by business management in mitigating seasonal and other short-run instability of sales, production, and employment.

The adoption of experience rating in state unemployment insurance laws has placed a premium on continuity of employment. Savings in the form of unemployment compensation tax abatement ranging from one or two per cent to as high as four per cent of the payroll in some states can result from regularized employment. The potential unemployment benefit cost per layoff runs to over $500 in most states, and up to $800 or $900 in some states. Thus labor costs have taken on an aspect of overhead costs that must be borne even if employees are laid off. Private pension plans may be so designed as to have the same effect. Engineering and economic consultants have come into being to advise management on ways and means to smooth out fluctuations.

To some extent, the techniques or devices helpful in eliminating seasonal and other short-run fluctuations are useful in mitigating longer-run fluctuations. Experience in smoothing out short-run cycles may pave the way for tackling the longer-run cycles, in terms both of attitude and techniques.

The following techniques, classified into three groups—marketing or sales policies, production policies, and personnel policies—are among those most widely used by business management to mitigate short-run instability.[4]

[4] The literature on suggestions and experience in the mitigation of seasonal and other short-run fluctuations is extensive. The following are typical. Herman Feldman, *Stabilizing Jobs and Wages*, Harper, 1940, is a comprehensive discus-

MARKETING OR SALES POLICIES:

Avoid special sales drives that create production or employment instability.

Intensify market research to probe and mitigate the underlying causes of irregular buying.

Bring out new models and designs or adopt new packaging in slack or dull periods.

Increase sales effort by advertising or incentives for salesmen to overcome dull periods.

Create out-of-season uses for seasonal products.

Diversify the market geographically or otherwise to avoid seasonality.

Change the product to give it an all-season appeal.

Employ a discount system, graduated or straight, to encourage wholesalers, retailers, and buyers to place early orders.

Eliminate extreme fashion aspects.

PRODUCTION POLICIES:

Produce parts, subassemblies, or finished products for stock during slack periods.

Carry on continuing research in production for stock and in warehousing problems.

Simplify the product mix, with a view to facilitating production for stock.

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sion of business plans and techniques to regularize production, employment, and wage income. Emerson P. Schmidt, ed., *To Make Jobs More Steady and to Make More Steady Jobs*, Webb, 1942, covers over 100 case histories of individual company plans and programs; a government publication, *Guaranteed Wages*, states that it is the most comprehensive study of "stabilization opportunities and techniques" available. *Employment Stabilization*, National Association of Manufacturers, 1948, discusses the advantages and problems inherent in employment stabilization, fixes responsibility for program action, appraises current studies, and evaluates prospects. Ernest Dale, *Annual Wages and Employmentment Stabilization Techniques*, American Management Association, 1945, has a full and comprehensive analysis of employment stabilization devices and techniques, and discusses the relation of steadier jobs to guaranteed wages. Sam A. Lewisohn, Ernest G. Draper, John R. Commons, and Don D. Lescohier, *Can Business Prevent Unemployment?* Knopf, 1925, is a pioneer study of seasonal and cyclical countermeasures. Simon Kuznets, *Seasonal Variations in Industry and Trade*, National Bureau of Economic Research, 1923, sets forth methodology for measuring and comparing seasonal variations and provides extensive analysis of these variations in numerous industries. *Sustaining Prosperity*, Chamber of Commerce of the United States, 1953, outlines for businesss management a series of concrete steps and policies to help mitigate fluctuations.

Diversify the product mix, developing slack-period lines.

Carry on maintenance, repair, and construction work in slack periods.

Spread out orders at the peak.

Meet peak demands by special production-incentive systems.

Charge unemployment compensation costs to departments responsible for the layoffs.

Contract work out to avoid peaks.

Intensify production planning and budgeting for twelve or more months ahead, with a view to eliminating shortages of supplies and components.

PERSONNEL POLICIES:

Recruit people with more versatility and flexibility to ease shifting from slack to busy departments.

Train employees for more than one task.

Transfer employees from slack to busy departments.

Centralize all hiring and layoffs in one office.

Use slack periods for training and retraining personnel.

Schedule vacations and retirements during slack periods.

Develop a "flying squadron," "utility crew," or "extra gang" to meet temporary department peaks.

Meet peak demands by a special production-incentive system.

Hire part-time people, especially students and others not wanting full-time work.

Use a flexible workweek with stable weekly pay.

Develop arrangements with one or more other employers to borrow and lend employees (systematic dovetailing).

Examination of the publications listed in footnote 4 shows that all of these techniques and devices have found extensive use. A study of the case histories discloses much exploration and experimentation, many ingenious adaptations, and, in many cases, revolutionary changes overcoming climatic obstacles (to year-round construction, for example), irregularity in raw material supplies, or instability of demand. Common practices of today were regarded as wholly impractical a generation ago, except by the few pioneers found both in industry and in a few universities, particularly the University of Wisconsin.[5] Knowledge of these accomplishments

[5] See, particularly, Lewisohn, Draper, Commons, and Lescohier, *op.cit.*, and references therein.

should help to keep open the question of how management can approach the admittedly more difficult task of ironing out the longer-run fluctuations in investment and in the general level of economic activities.

While the evidence is far from clear, there is some reason to believe that seasonal declines reinforce the cumulative process of cyclical declines and that this in turn slows down seasonal recoveries. If this view has any validity, it strengthens the case for a strong management effort to mitigate seasonal instability.[6]

The usefulness of these three sets of policies in mitigating the longer-run cyclical fluctuations depends upon many factors (an important one may be the success with which governmental monetary and fiscal policies are applied). The effectiveness of these proven short-run policies can be both overemphasized and underemphasized in meeting the longer-run and more severe economic fluctuations. One business executive put the matter this way: "After we cut our eye teeth in meeting the seasonal layoff problems we found ourselves in a problem-solving mood to tackle the depression problem."

Because of the greater importance of the longer-run instability and because the literature on techniques and policies for meeting shorter-run fluctuations is extensive and readily available, discussion will now turn to the more basic problem—*indirect* management approaches to the regularization of business investment.[7]

The Individual-Company Approach and Business Cycle Theory

One's estimate of the usefulness of the company approach to the mitigation of the business cycle depends on many factors, among the most important of which may be some knowledge of what individual companies have done and what theory of business cycle causation one holds.

This paper provides some information and evidence of company contracyclical policies and programs. Some companies have made outstanding progress. Many companies, of course, have a high

[6] In the period since the end of World War II, seasonal variations of the prewar type have not taken place in a number of industries. The strong demand pressure may partly account for this development. It might be worth while to compare recent seasonal variations with the findings of Kuznets, *op.cit.*, to see what other forces have been at work in reducing seasonal fluctuations.

[7] For some counsel on how management can prepare itself against volume decline, see James C. Olson, "Is Your Company Prepared for Rough Weather?" *Harvard Business Review*, autumn 1947, p. 595.

degree of stability because of the income inelasticity of demand for their products or services. These latter cases do not concern us here.

In some cases, the achievements are due more to the march of science, discovery, and invention than to a carefully planned contracyclical program. In other cases companies, and in a few cases entire industries, have studied the nature of their product demand, their markets, and the factors that caused previous difficulties. This has led to policies or programs that make company operations less vulnerable to (or in) cyclical declines.[8] The lines of approach vary greatly from company to company, some relying chiefly on a single policy but most of them using a combination of policies.

The area of discretionary executive decision and policy making includes such matters as price policy; the product mix; research and new product development, including geographical and other diversification; contracyclical products; demand studies; sales effort, including advertising; inventory as to quantities and pricing; financial structure; and still others. Some have moved from business forecasting to demand analysis, to attempts to manipulate demand.[9]

After reading what follows, few will deny that American business executives have taken a considerable number of significant contracyclical steps to make *their* operations more stable. But does this create greater stability of employment, income, production, and investment throughout the economy as a whole? Even after examining what has been done, readers are likely to come to varying

[8] The overbuilding and excessive debt creation in the hotel industry in the 1920's followed by all-but-universal default in the 1930's induced the industry to engage in a study and self-analysis that, it is generally agreed within the industry, placed the business on a much sounder and less vulnerable basis. Similar industry studies might make a major contribution to contracyclical capital formation and reduce the severity of depressions. See American Hotel Association, *The Future Outlook of the Hotel Industry*, 1946.

[9] Concentration on the instability of investment, because its large cyclical fluctuations make it seem to many an "originating cause," may account for the constantly recurring conclusions that business management can contribute little to economic stability and that the business of business (indeed, in the public interest) is to maximize earnings. One of the most recent negative conclusions grew out of the Minnesota capital investment study. A participant states: "Management investment policies are so closely geared to realized profits that such stability-promoting proposals as slack-period plant construction and equipment purchases and conscious inventory stabilization simply do not seem to fit into the pattern of thinking. The appeal such proposals might have in the way of lowering the cost of acquiring plant and equipment and inventories is overshadowed by the greater risk believed to be involved in making commitments that are not geared to profits already made or easily in sight." Walter W. Heller, "The Anatomy of Investment Decisions," *Harvard Business Review*, March 1951, p. 95.

conclusions depending on how they view the causes of economic fluctuations.

Questions like this will arise: If all companies took on essentially depression-proof lines, for example, so that during a period of capacity operation 50 per cent of each company's sales were in these lines, would a depression be less steep and prolonged than if one half of the companies were engaged exclusively in producing lines with high income inelasticity and the other half were turning out producers' and other goods with high income elasticity?

If the impact of a decline is spread broadly across the economy, does this inhibit the spiral effect? If so, how?

An individual company may advertise itself out of a depression or prevent a depression from overtaking it by superior sales effort. This may merely increase its market share at the expense of its competitors with no benefit to the economy as a whole. If its competition is stimulated to follow its lead and this broad, vigorous sales effort overcomes spending timidity and maintains or expands sales, it may be possible to show that a cyclical decline is arrested, or merely that sales of other industries have declined.

One company, by cutting prices and concentrating on cheaper lines, may increase its volume and net income. If all companies, that is, a whole industry, followed similar policies, would this inhibit the downward spiral, or might it defer buying by raising widespread anticipation of trouble ahead or still greater bargains to come?

These are the types of questions that will come to the reader's mind as he reads what follows. It would be possible to set up various models that would answer these questions. While such model building is important for certain purposes, the numerous variables that would have to be embraced might make the models of not much more than academic interest.

It should be noted, in passing, that questions of similar type arise under public policy for mitigating the business cycle. What is to be stabilized is not even agreed upon. Should the goal be to stabilize the price level? If so, what price level? Or employment? Or both? If both, will these goals collide? Will public works drive up material and labor costs and thereby delay the recovery of private investment? If taxes are abated because of a threatening downturn in business, will the announcement of the abatement reduce velocity of money turnover and increase spending timidity? If deficit spending is to be resorted to, how will the authorities determine the size

of the needed spending? And the timing? Will Congress and public opinion tolerate a deficit of sufficient size to accomplish the job? Will such spending restore balanced private investment or merely take up the slack of existing capacity? If public opinion accepts the deficit, but considers that it will mean a steady deterioration in the value of the dollar, what will happen to the government bond market and how will the deficit be financed? What are the implications for postdepression stability of the liquid asset creation growing out of the deficit spending? Can deficit spending be properly timed under our complicated governmental structure?

To raise these questions is enough to suggest that any public contracyclical program opens a number of important problems not too different from those raised by a private contracyclical program.[10]

Recognizing the difficulties of evaluation, we shall now turn to a review of what business executives and business economists have to say about their experience in working upon and thinking about the problem of the company approach to regularization of output and investment.

Indirect Regularization

In order to get the benefit of industrial experience for this study, the author sent some 200 letters to business economists and industrial executives asking them to examine in terms of their own experience, with a view to mitigating longer-run instability, the following areas of managerial discretion:

1. Price policy adaptations to changing phases of the cycle;
2. Product-mix changes to fit changing phases of the cycle;
3. The timing and acceleration of research and innovation, new products, etc.;
4. The volume and timing of sales effort, including salesmen, advertising, and market research (this item is closely related to nos. 2 and 3);
5. Developing supplementary lines that either are more or less depression-proof or have a different cycle;
6. Wage policy, including personnel administration, i.e., shifts in retirement age;
7. Financial structure, debt versus equity, short-term versus intermediate loans, commercial credit;
8. Inventory pricing policy and rate of purchases;

[10] See, for example, the discussions in A. G. Hart, *Money, Debt, and Economic Activity*, Prentice-Hall, 1948, particularly on pp. 415-438, 459-514.

9. Cost accounting, i.e., cost accounting on a historical cost basis exaggerates profit figures and profit anticipations;
10. Depreciation policy; and
11. Special financial reserves for lean years.

Three specific questions were asked:

Which of the above eleven areas of policy-making do you regard as offering business management the most promising line of approach?

What do you think the individual company can do in these areas?

Could you give me some actual illustrations of what companies with which you have been associated, or are now associated, or are familiar, have done in these areas?

Some fifty responses that revealed some systematic consideration and experience in this general area were received. Much of what follows is quoted from the responses and much of the comment is based on them.[11]

Negative Reactions

From both business executives and business economists a number of negative reactions were received. The economists raised questions of both practical and theoretical difficulties as well as of basic philosophy. The business executives who were negative came to the conclusion that little or nothing could be done by the individual company partly because of numerous government policies (taxation, rules on depreciation, compulsory distribution of earnings) and partly on the basis of labor union rigidities. In many cases, their reactions were based on the view that the company is subject to competitive and market forces that severely restrict managerial discretion.[12]

The economist for a life insurance company, who, however, was not wholly negative, expressed his reservation in these words: "Businessmen, it seems to me, . . . should be expected to act like

[11] In sending out these letters, the expectation was that the responses would serve as a guide and furnish illustrative materials and cases for the preparation of this paper. The responses indicated a high level of economic understanding, a richness of thought and experience, and a sense of challenge and responsibility. In order to convey to the reader the character and quality of the responses, and because in this preliminary exploration it is of some importance to indicate the reactions and experience of business executives and business economists, quotation from the letters is relied upon primarily, and much more so than was originally intended.

[12] In addition, many of the respondents questioned the feasibility of managerial action in one or more of the eleven areas of policy previously mentioned.

businessmen. The effort to mitigate cyclical fluctuations gets on dubious ground if and when it makes them act or think of acting like something other than businessmen. In saying this, I mean that businessmen should be expected to try to maximize profit in the broadest sense, which of course does not necessarily mean each day viewed separately. I am not sure that mitigation of cyclical fluctuations and maximization of profit even in the broad sense are compatible within the same breast at all times."

This leaves open the question of short-run versus long-run maximization of earnings. It views the businessman in a somewhat narrower focus than he generally views himself.

A consulting economist, with extensive experience, concluded that the competitive enterprise *élan* precludes management consideration along the lines indicated in my letter. Here are his words: "I do not believe that a bona fide competitive enterprise system as a whole can do anything much to mitigate the impact of business cycles on itself. One can argue that the exercise of restraint on upswings is likely to dampen the subsequent downswing, but such restraint is not in conformance with the principles of competition and is in direct conflict with the spirit if not the letter of antitrust legislation. Competition means expansion at the risk of periodic overexpansion. It is the function of government, including primarily the monetary authorities, to prevent overexpansion. It would seem suicidal to saddle the enterprise system with responsibility for dampening economic fluctuations, when to do so is clearly beyond its power and also contrary to the social-economic environment in which it operates."

This view was expressed perhaps even more forcibly by the economist of a steel producer. His views merit quotation at length: ". . . I come up with the conclusion that in your place I would ask to be excused from writing a paper on what an individual firm can do to mitigate cyclical fluctuations in the volume of its business. The reason . . . is that it is my considered judgment that there is absolutely nothing that any individual firm can do to mitigate business cycles that is worth mentioning. I think that time spent in trying to formulate policies for individual firms to follow in the hope that pursuit of such policies will mitigate business cycles is time that is wasted. Each of the 11 policies . . . [is a policy] to which every individual firm should pay attention in developing the growth of its company. Indeed in a properly functioning economy they would be competitively compelled to pay attention to such matters. But the

hope that such policies would mitigate business cycles is, I believe, a completely forlorn one.

". . . But if any one firm in a period of boom fails to make the expansion otherwise competitively indicated, the net result is that it makes such expansion on the part of its competitor the cheaper and more easily effected. When the . . . depression comes along, the competitor who did not restrain himself has better equipment, more customers . . . at the lowered cost by reason of the restraint of the given producer. In short, all that this kind of . . . effort leads to is to put the 'cooperating' employer at a progressively greater competitive disadvantage. In other words, he is just putting himself out of business and leaving the field to those 'recalcitrants' who are perfectly happy to produce the boom and the bust!

". . . I don't see how individual businesses can, in the light of the events just illustrated, do anything to mitigate business cycles without embracing each other in some sort of an enforceable limitation of production in [a] time supposed to be boom. This would be the road to some sort of fascism—and I want none of it."

This reaction, from an economist who regards major cycles as essentially monetary phenomena, is based on a strong conviction as to the desirability and actuality of the competitive character of our economy.

The economist of a private research organization, although not so negative as some of the others, expressed his reservation in these words: "I have always doubted whether the individual business concern, acting independently, can exert very much effect upon the level or rate of change in general economic activity; and collusive activity . . . that might yield substantial benefit is likely to be illegal—to say nothing of the possibility that it might have . . . unfavorable structural by-products."

Part of this same thought was reported by an economist associated with a motor vehicle manufacturer: "It has been shown in the past that many firms have been highly successful in avoiding violent fluctuations through the adoption of policies such as outlined in your letter. In a great many of these instances, their success, however, seems to have been based upon an alteration of their competitive situation. Thus, the gain of one may have been to a large extent the loss of others, and there was no discernible effect upon the national volume of business."

The economist of a fat and oil products manufacturer, while not wholly negative as to individual management actions, regards the

use of credit as the key to cyclical stability: "I assume that a cyclical peak in production and trade is experienced when people have been investing larger sums than they can continue to invest, or people have been spending more money for consumption than they can continue to spend, or when expenditure for political purposes has been larger than the authorities can maintain. In practice all three of these types of expenditure are varied almost simultaneously. The reason why expenditure in the first two of these categories is reduced ordinarily is that accumulated savings or credit have been used to finance expenditure and no longer can be or will be employed for that purpose."

These skeptical views may be summarized in the following propositions:

1. The individual business unit is primarily the victim or the beneficiary of market and competitive forces and pressures over which it has little or no substantial control (and many add that this is just as it should be).
2. Regularization efforts by the individual business unit are not in keeping with the basic drive of the entrepreneur or the spirit underlying a competitive private enterprise economy.
3. Antidepression action would require concerted action by members of an industry, which would violate not only the spirit but the letter of our antitrust legislation.
4. The power of an individual business to take action against depression involves some insulation from the rigors of competition and a move toward some preferred position, or some degree of monopoly position.
5. There is danger in accepting the idea that business can overcome the cycle when in fact this is beyond its power.
6. The gain of one company in achieving a stabilization program is likely to be at the expense of other producers or other parts of the economy.

These reactions raise questions of fact, of semantics, of conceptions, of ideology, and of executive motivations. These matters are discussed more fully in other papers in this series. They are not typical of the responses received.[13] But they do express considerations of first importance.

[13] For a much less pessimistic conclusion, see Adolph G. Abramson, "Business Management Action against Depression," *The Future of Business Research*, Chamber of Commerce of the United States, 1949.

The author, being reasonably familiar with the literature on mitigating seasonal and other short-run instability, sees a marked similarity between these negative approaches and the pessimistic views generally taken a generation ago in regard to short-run instability. The accomplishments of management in mitigating short-run instability should at least keep open the possibility that this negative approach may not be wholly valid. It must be recognized, however, that substantially mitigating market declines of longer-run instability raises difficulties of a magnitude and character not encountered by management in attempting to overcome short-run instability. Furthermore, the dollar savings of short-run continuity of operation generally are recurring, tangible, and measurable. Savings made by anticyclical policies are in doubt, uncertain, and not necessarily recurring.

Of the less skeptical responses received, few indicated any outstanding conviction that the cyclical problem had been solved. A considerable number stated that positive action taken had made the company less vulnerable, and in some cases substantially less vulnerable. The degree to which the problem has been given consideration and actions have been taken promises a continued lively interest in further exploration. If an extensive literature of both an analytic and guidepost character were created in the period ahead, this could be expected to lead to considerable practical exploration and experimentation by business executives, economists, and consultants.

Adaptive Price Policy and Product Mix

While a considerable number of respondents emphasized adaptive price policy in general as of importance in mitigating the cycle, when it came to discussing actual achievements and the practical problems and limitations, they were generally, but not always, less confident.

This is not too surprising since, upon more mature consideration, a good many economic theorists now express considerable uncertainty as to the wisdom of price (wage) flexibility. Joel Dean, although recognizing that a company should have a cyclical price policy, makes the sweeping statement that "Much publicity has been given to the thought that flexible prices would help to cut short the descent into depressions and reduce fluctuations in business activity. Nevertheless, there is little support for this idea either in accepted economic theory or in history."[14]

[14] Joel Dean, *Managerial Economics*, Prentice-Hall, 1951, p. 466.

Even if this is a valid generalization, it still leaves open the question in the case of a specific industry, a specific company, or a specific product. During booms, differential price movements are substantial, and it would be surprising if all such relationships are adaptable to a period of softer markets.[15]

The margin available for price reduction, especially if the overhead costs are spread over a reduced volume during declines (full current-cost pricing), is not very large. Average net profit per dollar of sales in prosperous 1929 was about 5 cents. Even in peak years one third or more of the active corporations make no net profits. In 1929, out of 456,000 active corporations 41 per cent earned no net income. In 1948 the proportion was more than one third.

The earlier view that depressions may be caused, and in any case deepened, by "sticky prices" set by the "concentrated monopolistic power" of the "administered price" industries is no longer generally held. Alfred C. Neal has made a careful study of the relationship among costs, prices, and concentration during the period 1929 to 1933, the low point of the depression. He found that there was a very close connection between price declines and *cost* declines and each in turn showed little or no correlation with concentration. He concluded: "We should expect concentration to have had some influence upon prices, but this effect cannot be found by examining price behavior. . . . It is to be found instead in *the behavior of prices relative to cost.* Pricing in concentrated industries is based upon costs, and apparently these industries pass along lower costs for materials and labor about as well as non-concentrated industries."[16]

This research finding is confirmed by most businessmen. Nor are they confident generally that price cutting will stimulate markets.

An executive of a farm-implement-producing company states: "The majority of businesses fluctuate in accordance with a general fluctuation in the over-all business cycle and from my own manufacturing and selling experience, reduced volume very adversely affects your costs and most businesses are not in the position to lower

[15] In the case of manufactured products, management has, of course, price decisions to make. Even if prices are held rigid when markets soften, this itself is a price policy. Price changes may be made to conform to changes in the price of substitutes, or in the general price level, or to maintain the "market share," or to reflect changes in costs. Costs themselves may be variously defined to include incremental costs, standard full costs, or current full costs. These do not exhaust the possibilities.

[16] "Pricing Aspect of Business Cycle History," *Pricing Problems and the Stabilization of Prosperity*, Chamber of Commerce of the United States, 1947, p. 37.

prices, in my opinion, during a period of reduced volume. While . . . competitive pressure may drive prices down some during a period of that kind, I seriously doubt that this offers . . . an opportunity to reverse the cycle of the individual business to a point where it becomes an answer to the problem."

A similar line of thinking is expressed by an executive of a food processing company: "The pricing policy must necessarily be related to the product and the market, taking full cognizance of the general practices in the industry. Many products can be sold on a relatively fixed-price basis, and the price is set to yield a satisfactory margin when related to an anticipated volume of business. If for any reason the volume is not forthcoming, management may reduce the price in the hope of attracting more buyers, or it may decide to use a greater part of the margin for sales effort or advertising to accomplish the same purpose. As a general practice, I do not believe it is wise to change the price of products which generally sell at a fixed price in order to smooth out seasonal variations in volume or declines in volume which may be of relatively short duration. Frequent price changes on a fixed-price product lead to less confidence on the part of customers, particularly in a buyer's market. Other types of products are generally sold on the basis of competitive pricing. In such cases the concern must be able and willing to make price concessions, or see its plants operate at a low rate of capacity."

The president of a life insurance company with considerable industrial experience states: ". . . price margins should tend to be made higher as the business cycle moves upward and lower as it moves downward. Competition probably works toward this in any event, but even if it did not, in periods of depression the margin of profit on sales should be low in order to stimulate sales. I realize, of course, that this plays havoc with profits because the volume of sales will be low at the same time the margin of profit on them is also low."

The economist of a paper-products-manufacturing company says: "Prices in a competitive business will naturally follow the cycle, but this may increase rather than reduce the swings. Holding prices down during the boom may help to enlarge the market before the depression sets in, but to reduce prices during the boom is likely to be taken as a sign of market weakness and as reason for waiting for further cuts. It takes fear of rising prices to induce increased buying. . . . The Robinson Patman Act tends to prevent experimentation with reduced prices in limited areas."

A banking economist puts his conclusion in these words: "Theoretically, an anticyclical price policy would call for high prices in periods of prosperity and high demand, and for lower prices in periods of recession and reduced demand. The higher prices would to some extent have the effect of reducing consumer demand when it tends to be high or when excessive, and the lower prices should stimulate demand when it tends to be inadequate. As a practical matter, however, there are serious difficulties in the way of such a policy, especially for very large concerns. While such concerns can benefit, from a public relations point of view, by reducing their prices in a period of business recession, they are almost certain to be accused of gouging and inordinate greed if they raise their prices materially in a period of prosperity. Furthermore, the rapid growth in their profits in prosperous years is usually taken by the labor unions as an open invitation to demand large increases in wages and other benefits at the time when the employers are in the weakest position to resist; and if they do not resist, the result is to increase production costs, which makes it more difficult to reduce prices in ensuing periods of recession. Perhaps the best policy for prominent concerns may be to follow their smaller competitors in raising prices and to take the lead in reducing prices. (Even then, however, they cannot expect to be immune to criticism as, in the latter case, they may be accused of seeking to destroy their smaller competitors.)"

Adapting prices to changing market conditions is closely related to changes in types of products offered for sale. For companies that manufacture or distribute numerous product lines of varying grades and prices, experience shows that there is considerable variation in the behavior of the different products over the course of a business cycle. It is, of course, good business management to anticipate and to be sensitive to shifts in taste and demand. Can the individual company reduce its vulnerability to cyclical declines by advance planning of its line of products?

A building supply manufacturer at the present time (1951) is not even producing his less expensive lines. It has been his company's policy, when markets soften, to promote existing low-priced lines and to introduce new low-priced lines. The other lines are priced on what the company calls a quality basis, whereas the low-priced lines are highly competitive, and in postwar years have been reserved for the period when sales resistance occurs.

At the time of writing, this company is concentrating on a fiber board used for insulation in industrial construction. As new capital

investment declines, repair and modernization materials are expected to be in greater demand, and these will be promoted. Should a major depression develop, the company has made plans for vigorous emphasis of repair and modernization materials.

The president of a rubber products company recognizes the advantage of changing product mix in the several phases of the cycle, but views management as being more led than leading: "We believe that the cycle determines the product-mix, not the reverse. All companies try to sell all their products at all times, but the consumers' ability to defer purchase until better times changes the mix. Also, under depression conditions, the demand for lower-quality merchandise, which offers buyers with low incomes something that will tide them over, will inevitably increase against the higher-priced lines, which represent better value but take too large a portion of reduced take-home pay."

An executive of a food-processing company states: "I believe management must be alert to changes in the demand for specific products. If a product sells to a wide cross-section of the public, it is necessary to appraise the effect of lower mass purchasing power and to determine whether the product can be changed . . . to sell at a lower price and still meet the needs of people who want it. With the next upswing of the cycle, the trimmings which were removed may be restored, adding to the popular appeal of the product. However, I do not believe that a standard product should be cheapened—certainly not where its utility is materially impaired. Rather, a similar product might be produced in a lower price range."

In the depression of the 1930's the mechanical refrigerator industry brought out the so-called strip box, a cheap variation with few features and little ornamentation, and thereby stimulated sales.

The economist of a large retail establishment expresses his company's experiences in these words: "In retailing, we are constantly changing emphasis on price lines to fit conditions as we see them. The problem is to keep a proper balance and to know when to push the next higher price lines or the next lower price lines. For balanced production, the right product-mix is very important. Many companies do not think about this kind of protection to operations until they are actually confronted with a vanishing demand for the main product. It is not easy to change price policies in manufacturing; but if the product lines are properly adjusted to fit the mass, medium and high priced markets, it is often possible to make relatively smooth adjustments when conditions are unfavorable."

An economist with considerable experience in endeavoring to insulate a number of companies against depression's impact states: "Changing the product-mix with the changing phases of the cycle is most challenging and, though inapplicable to a great number of businesses, has a very considerable scope. Certainly a business that manufactures a considerable number of lines should know which sells best in periods of depression and which in periods of activity, and be able to handle its business on this basis. As I see it, the problem is maintaining sales so as to minimize the reduction in employment. I presume that there is a considerable flexibility in many businesses which enables them to keep their organizations operating by accommodation to the particular market situation that arises from the fluctuations of the cycle."

An economist associated with the textile trade, basing his comment on close observation, says: "On the down side of the inventory cycle it may be possible, through bringing out lower priced merchandise, to create new demand and enlarge the firm's total output, thus holding up employment. A wholly different product would, of course, stimulate employment. Even with a cheaper product, however, the chances are that demand would not increase substantially until the price stabilized. All buyers wait for the bottom. If it is a new product it is possible that demand could be developed even during a period of falling prices. Manufacturers have . . . given some, but perhaps not enough, attention to this problem. As a practical matter there are, of course, limitations to the number of lines that a company can carry if its lines are already well balanced and have pretty wide coverage."

These quotations, plus the analysis by Alfred Neal and the fact that for the most part American business relates prices closely to cost, indicate some of the possibilities and difficulties in following adaptive pricing and product-mix policies when markets soften. If there is merit in these ideas, as seems to be the case, it suggests the necessity of advance planning.[17]

General price and wage cutting when depression threatens may not prevent depression because, while this will cut costs, it may also cut incomes, leaving the general situation just where it was before the cuts. It may also raise anticipations of further cuts. How-

[17] Many prices appear more stable and rigid than they are in fact. During periods of soft markets concealed price concessions may be made. Changes may be made in discounts, guarantees, cancellation and returnable privileges, and advertising allowances. When markets boom the quoted price may remain the same while the effective price changes in terms of the other conditions of sale.

ever, selective price and wage adjustments on a more or less continuous basis (rather than after fear and timidity have taken over) may do much to continue to clear markets. During booms the short-lived excessive demand may push some prices and wages upward and out of line. When demand threatens to recede, a careful examination of costs, prices, and product lines may indicate possibilities of tapping new but lower levels of demand and thereby mitigate the tendency toward recession.

In the early stages of the depression of the 1930's, in some cases both wages and prices were actually raised as volume declined and overhead costs were spread over smaller output. This was self-defeating. An electric supply producer announced a substantial price increase after the 1929 decline was in full swing. The economist of this company now states, "Never again will we do that."

For each business concern to review constantly its price policies in terms of counteracting these alternate booms and depressions would require a high order of business statesmanship and economic analysis. Since at the time the executive never knows whether a major depression or merely a minor wave is in prospect, he faces some difficulty, although forecasting, beyond that done by management of necessity in any case, is not necessary.[18]

During the latter stages of the war and after V-J Day, general depression was widely and persistently predicted, especially in Washington. One factor that no doubt helped prevent general depression was the steady readjustments that took place in plant after plant and industry after industry. The fur industry was in serious difficulty in 1946. The same was true of the jewelry industry, and certain soft goods lines. But as each industry experienced difficulties in maintaining output, certain production and price readjustments were promptly instituted and this helped to maintain markets. Indeed, a new term, "rotation adjustment," came into vogue, suggesting the successive readjustments that took place. Possibly this adaptive behavior helped to prevent a decline of the whole economy. This may have considerable significance for the business executive in indicating an area for adaptive policy.

The degree to which markets are maintained and strengthened will determine the stimulation of maintenance, replacements, and possibly new capital investment.

[18] Abramson has pointed out that contracyclical business policy management need not rest on business forecasting. *op.cit.*, p. 36.

Accelerating Research, Innovation, and New Products

American business is research-minded in terms of new processes and technology, new products, and market expansion and development. Can the individual company through its research and new-product policy mitigate its cyclical vulnerability?

Most of the respondents emphasize that research is not something that can be turned on and off like a spigot. They believe that sustained research pays off handsomely and that it reduces the impact of depression. But they tend to question the possibility of effective timing to offset cyclical fluctuations. Many stress the advantage and ease of introducing new products when markets are strong.

The economist of a paper products manufacturing company, which for a generation has emphasized new product development as a contracyclical device, said that the effort has not been entirely successful. He put it in these words: "If one has a new product, one wants to market it ahead of competitors; and the time of the next depression is likely to be unknown. To the extent, however, that research helps to keep the business growing and healthy and that expansion of capacity is guided by secular rather than by cyclical growth, the secular growth should help to offset any cyclical decline."

The economist for a rubber products company emphasized the difficulty of introducing new products when markets in general are soft and uncertain. Although recognizing the possible value of better timing, he said: "I think most business managers would prefer to introduce the new product at a time when market demand was high, in order to get it firmly established in the market ahead of competition. Thus on the whole, I believe that new product development and introduction of new products has in the past accentuated rather than ameliorated the swings in the business cycles."

The economist of another rubber products company takes the opposite view: ". . . it is frequently more successful to launch a new or improved product during the periods of business recession than at other times, because the relatively smaller amount of promotional effort at such times allows these innovations to stand out by contrast."

Such contradictory conclusions may, of course, be valid in terms of different experiences, products, and periods.

The economist for a building products manufacturer states that the company's research people will not admit that it is practical to

time research to help offset the cycle. However, experience does not completely verify this negative conclusion. The economist points out that the several new products and product improvements are generally at varying stages of development, and that it is always possible to select particular research projects for additional acceleration. This company has broad over-all anticyclical policies of which new product research is only one.

An executive of a food-processing company, with exceptionally extensive research experience, puts the matter in this way: "It is possible that the timing of research and innovation may be controlled to some extent so as to have new or improved products ready at the opportune time. However, I am inclined to believe that once a new product is ready for the market, it should be offered without too much delay. I might say that we have had success in launching new products in the depths of the depression as well as in the postwar boom. The important thing is to have the innovations and new products coming along. Gaining a market for a new product is difficult under any circumstances and is a part of the growth process."

Philip D. Reed, chairman of the board, General Electric Company, doubts the possibility and wisdom of holding back major innovations: "Any self-imposed 'automatic' checks which would deter expansion in periods of high demand would be bound to place us ultimately at a serious competitive disadvantage and it seems to me that any national or industry-wide checks of this nature might well delay the introduction of new products to the American public. For example, would the country really be better off if all capital expenditures for the production of television had been deferred until the time of the next business recession?"[19]

Similar views were expressed by most of the respondents; only a few rejected the idea completely. Many respondents believed that new product research pays off in terms of mitigating cyclical declines. A paper and paper products manufacturer with a definite anticyclical policy on new products states: "Within the last month we ourselves have increased our research appropriation by . . . more than 30 per cent. Three times in the last thirty odd years, as a result of research and development, we have made major changes in our basic lines of products with the result that our operating ratio overall has been better than the industry in times of recession or major

[19] "Volume and Stability of Private Investment," *Hearings before the Joint Committee on the Economic Report*, 81st Congress, 1949, part 2.

depression. Today in the field of standard white papers we are not making any of the grades that we were making twenty years ago. We introduced a new line in 1932 and not more than 5 per cent of our total volume consists of grades we were making fifteen years ago . . . our own increase in research activity in all of its phases is intended to give us new or better products or lower costs, or all of these, when demand slackens."

A chemical manufacturer, substantially free from cyclical difficulties, expresses somewhat the same view in these words: "This policy of product diversification has been in effect for a great many years and is based upon the principle that business health and stability is most readily obtained when there is diversification of product lines and sales outlets."

Another chemical producer, one of the leaders in the proportion of the sales dollar devoted to research, puts the matter this way: "I would say that we are just becoming aware of the timing of real efforts on new products. There is a cliché in our industry which says that the timing from laboratory to market on a new product is seven years. We are constantly engaged in trying to speed up that cycle and are beginning to give more emphasis to watching the product after its initial production to see when it is ripe for real promotion. There is, of course, a period—sometimes too protracted—in which a product is finding acceptance, customer-by-customer, in its new application. There is a certain psychological moment when it is ready for all-out sales effort, and we are now consciously trying to time that so that our advertising and field sales forces can be brought into play neither too early nor too late."

The executive of a farm implement manufacturing firm explains that his company has kept ahead of his industry through research development. He has this to say: "During the last depression in our own business the only departments that were not substantially reduced in personnel were our research and new development departments. A check that was made during that period indicates that we were granted more patents than any of our competitors and I think much of our gain positionwise in the industry that followed can be attributed to the aggressive policy pursued during that period of accelerating research, but I would not say that it had given us any particular assistance during the depression period. It paid off, in other words, after 1935 when we and all other businesses began to recover."

Several respondents emphasized their advantage in coupling new-

product research and cost-reducing research. An economist puts the matter in these words: "Similarly, innovations in processes—particularly those of cost-saving types—would be most useful and necessary in periods of recession. And if new equipment is required it could presumably be obtained most easily and cheaply, and with benefit to the economy, at such times."

The same idea was expressed by the economist of a large banking investment group with experience in helping clients: "There should be new products to be ready when present lines sag in volume, and these should include less expensive models, and models with new economy features for introduction in times of cyclical downturn. These can be very helpful in keeping the sales force full of drive when sales are hard to secure. Here I think that this applies to both consumers' and producers' goods as there should be many opportunities to sell labor-saving, material-saving, and cost-saving productive equipment even when the business curves are pointing downward. This would have the advantage of increasing demand for metals, which must be held up if business is to be good."

The economist of a fat and oil products company questions the possibility of useful acceleration, but also sees the function of research as cost-reducing: "I would be reluctant to work in any enterprise where my colleagues did not do everything they could at all times to provide the best products at a proper price for their customers. I do not see how one can accelerate research, innovation, and sales effort in a company where the men are doing these things to the limit of their capacities at all times. I think the managers of any company who are not utilizing capacity in respect to the performance of these functions will lose out in the competitive struggle. I have seen this happen so many times that I do not believe that it is possible for a competent management to accelerate selling effort or research because sales are being reduced. Their role is to reduce costs and increase efficiency at all times."

This brief review may be somewhat inconclusive. It does suggest the possibility that widespread research on a sustained basis might help to make the economy less vulnerable to depression. It further suggests that if the business executive once sees the role of research and new-product development in this light, his own longer-run self-interest may induce him to support research appropriations and expenditures on a more sustained basis.

Possibly of more importance are a research staff and facilities large enough to make it unnecessary to divert research talent from

new-product or -process development to customer problems during periods of high prosperity. If new research is sacrificed to current sales development in boom times and commercial exploitation is deferred in the face of weakening markets, research and development are likely to have a procyclical impact.

Developing Supplementary Lines

The idea of developing supplementary product lines that either are more or less depression-proof or have a different cycle was endorsed more frequently by the respondents than any other single idea. The concept and practice of product diversification and broadening product lines are, of course, of long standing in American industry. The emphasis on research works in this direction. The size of the American market and the geographical spread of buyers over a wide range of territory, with consequent heavy freight charges, similarly encourage product broadening and diversification. For these reasons, it is not surprising that American management has given much consideration to gearing this diversification to mitigate market shifts, including cyclical declines.

Joel Dean, an economist with extensive consultive experience, states: "The practice of adding new products to mitigate cyclical fluctuations and thereby mop up excess capacity is common enough. Manufacturers of building materials, banking on the past independence of building cycles and business cycles, have added industrial products."[20]

He cites the example of one firm that, to use the excess capacity of felt mills in the early thirties, added a line of products for insulating and sound-proofing automobiles. The product proved successful, even though it did not use the company's regular distribution channels and required a new sales force to sell directly to the automobile manufacturers. The limited number of buyers helped in market penetration.

There is considerable experience, as well as statistical evidence, to show that new products and diversification provide some insurance against a general market decline. The diesel locomotive was launched in the depression of the 1930's and experienced substantial growth so that, by the latter part of the depression, diesels outsold steam locomotives by a substantial margin. Among its other advantages, the economy of the diesel's operation was a strong selling point.

[20] *op.cit.*, p. 116.

Similarly, as shown in table 1, a number of consumer durable goods resisted the depression in the 1930's remarkably well or actually expanded in volume. Radio receiver output declined much more slowly than most consumer durables and by the middle 1930's production exceeded the 1929 levels by a wide margin. In the case

TABLE 1
DURABLE GOODS RESISTING DEPRESSION

	LOCOMOTIVES, NEW INSTALLATIONS		NUMBER OF ELECTRIC APPLIANCES SOLD		
	Steam	*Diesel units*[a]	*Radio receivers*	*Household refrigerators*	*Electric washing machines*
1929	762	n.a.	4,428,000	630,000	956,000
1930	782	n.a.	3,827,800	791,000	802,000
1931	124	n.a.	3,420,000	906,000	812,000
1932	31	4	2,620,000	798,000	569,930
1933	1	2	3,806,000	1,016,000	966,698
1934	59	18	4,084,000	1,283,000	1,121,137
1935	36	15	5,500,016	1,568,000	1,228,774
1936	66	32	8,248,000	1,996,000	1,528,585
1937	362	74	8,065,000	2,310,000	1,465,405
1938	138	98	7,100,000	1,254,000	1,031,353
1939	76	205	10,538,000	1,900,000	1,329,377
1940	120	281	11,531,000	2,600,000	1,454,831

[a] Includes a small number of gas-electric and gasoline locomotives.

Sources: Locomotive data from Association of American Railroads, *Railroad Transportation*, November 1950, p. 17. Electrical appliance data from *Electrical Merchandising*, January 1935, pp. 9-11; January 1940, pp. 8-9; January 1948, p. 40.

n.a.: Not available.

of household refrigerators, there was an actual expansion of sales by nearly 50 per cent from 1929 to 1931. Electric washing machines showed considerable resistance to contraction, and in 1933, sales exceeded the level attained in 1929, after which substantial growth took place. Diesels, radios, and refrigerators, of course, were in the developmental stages. Enlarged or mass production itself made price cuts practical and helped to penetrate the market.

These items are merely a few of the considerable range that might be mentioned. They do indicate that expansion took place in spite of a general and precipitous contraction of the gross national product and disposable income, and in the face of rising unemployment.[21] This reemphasizes the importance of new-product develop-

[21] Wesley C. Mitchell's last work states: "According to our definition, the basic feature of business cycles is substantial agreement among many economic

ment and innovations, a matter discussed elsewhere.[22] This experience might suggest that the more research-minded American industry becomes, the greater are the prospects of putting a floor under depression and stimulating recovery.

There are, of course, certain dangers in broadening the product line and taking on new lines. The problem is frequently not one of technical know-how or factory production but rather one of marketing, sales organization, distribution outlets, and the gaining of consumer acceptance.

An economist who has been associated with several companies that have outstanding achievements of this kind to their credit strongly endorses the idea of supplementary lines if they can be made profitable, but states: ". . . when men enter lines of business which they do not understand, where their problems are quite different from those to which they are accustomed, the results often are a waste of raw materials, management effort, labor, and capital. I do not mean to imply that changing the structure of a business is an unreasonable practice—I merely wish to indicate that I do not think there are many businesses which can be so changed in a structural sense with the major object being that of improving the stability of sales."

An executive of a chemical company that has made specific efforts to develop supplementary lines says: ". . . this approach appears particularly fruitful in our business, which caters to every other industry there is. We are engaged at present, in my division, in a study of how our various products have behaved during previous depressions or recessions. We are also studying the industries we serve to see which ones have proven most depression-proof and, as a matter of policy, we try to steer our research and development work principally in such direction. There is a high mortality on our products, and in a typical good year about 45 per cent of our sales and profits will come from products which have been developed within the past ten years."

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activities in the timing of their expansions and of their contractions. Yet less than half of the average patterns of the series in our sample characteristically reach their lowest points at reference troughs and their highest points at reference peaks. Our efforts to observe and to understand what happens during business cycles begin with the differences found in this fundamental trait." *What Happens during Business Cycles*, National Bureau of Economic Research, 1951, p. 51. Also of interest is the National Bureau's *Cyclical Diversities in the Fortunes of Industrial Corporations*, by Thor Hultgren, 1950.

[22] See pp. 299-316, above.

The president of a rubber products company refers to several successful experiences in these words: "Depression-proof lines can be very helpful. . . . Recognition of the difference in timing by product is useful. For example, in our company the impact of a change in the business cycle falls at a different point for several of our key products. However . . . the success of one company in this direction merely takes business from another, without significant change in national sales or employment."

The vice-president of another rubber company states: ". . . the development of supplementary lines which are contracyclical or show less reaction to swings in the business cycle . . . is a very fruitful area for management study. A number of companies with whom I am acquainted have done some worthwhile work in this field and it has paid dividends for them in enabling them to balance production and inventory, and in maintaining a stable working force."

The economist of still another rubber products company states: "It is amazing how few concerns in lines which are very vulnerable to fluctuations in the business cycle have taken steps to develop less vulnerable lines. It is also amazing how few concerns have attempted to develop products which have a different cycle of fluctuation from those which they already have. . . .

". . . the rubber companies were trying to get into fields which would be less chronically depressed and less sporadically aggravated. This example is not one of conscious effort at developing products that will be proof against general economic depression. However, the items which the rubber industry has taken on—plastics, steel products, general merchandise, batteries, spark plugs, aircraft, footwear, wheels, brakes, etc.—have in fact all tended to have different cycles of fluctuation under adverse economic conditions."

A building supply manufacturer, formerly subject to extreme seasonal and cyclical fluctuations, has sought, with considerable success, to broaden the use of its main raw materials. The impact of the instability was disastrous to both the company and the community. As a result of its planned program the company now produces 35 per cent nondurable consumer goods, 30 per cent consumer durables, and about 35 per cent capital goods. This company added a glass container and closure business primarily because of its resistance to depression.

An executive of a company manufacturing producers' equipment, whose sales of its chief product tend to approach zero in a major

depression, reports a comprehensive long-range plan designed to make the enterprise less vulnerable in depression. His comment is worth quoting at some length: "Some 20 years ago the company decided that its future existence was pretty much contingent on diversification. The problem was to take a plant which was set up for large and heavy metal working projects and fill it with other type products. You can understand that this was and still is a metal working plant and it would be absurd for it to consider the manufacture of small consumers' goods or even soft goods. Thus, again, the question of how to go about accomplishing this diversification arose. The management considered starting from scratch to develop products but that was rejected because it was the long and difficult way of doing it. So the decision was made to acquire a company which manufactured heavy capital goods but which had some promise of not being subject to the same violent economic swings as in the case of the original product. This diversification has proved satisfactory over the years since we now enjoy very satisfactory and profitable business in materials testing equipment, hydraulic turbines, and hydraulic presses.

"However, in recent years it has been realized that even these newer products are not completely depression-proof (what is?) and, as you have probably read in the newspapers, within the last year we have acquired a company which manufactures road building equipment and another which manufactures earth moving and construction equipment, such as cranes, hoists, and draglines, etc. We believe the road building equipment, and the cranes, hoists, and dragline items should be about as good as any in . . . maintaining the profitability of our company in poor times. Generally speaking, they will feed into projects which may be supported by the pump priming techniques in the period of serious economic recession.

"We have not exhausted as yet our search for other products which will . . . add to our diversification but, of course, financial problems make it improbable that we can go at any great speed. We have some developments going forward but these necessarily must be on a very modest basis. . . . acquiring companies which can frequently be accomplished by the trading of common stock seems to be the quickest and easiest way of establishing one's self in the market place—and we are going more and more in that direction every day."

The president of a machinery company, with a long record of contracyclical research and planning, makes the following state-

ment: "Although we stay in lines of manufacture that require precision machining, we have diversified our customers and products to the extent that we serve many industries. Thus, in any given period, if one type of industry is depressed, we are able to turn our facilities over to another industry which may be operating more satisfactorily. We have also concentrated our past research efforts to development work in diversified fields."

The purchasing agent of an arms-producing company states: "Development of supplementary depression-proof lines is advisable, if only from the standpoint of diversification. My own company has recently made a heavy investment in a product in extremely wide demand and which for years has been underproduced. It is entirely foreign to our basic manufacturing processes and sales field. It looks very promising. With good management it should be an excellent hedge when our other products fall off. Some of these other products are in a category of declining demand for a number of years."

Investment counsels and consultants, in their professional advisory activities, pay considerable attention to this matter of diversification and the possible impact of depression. One such counsel makes the following comment:

"There have been many examples over a period of years of companies which have diversified their business with varying degrees of success in hopes of obtaining greater stability. One cannot make a case, however, that very many of these companies specifically attempted to wipe out the cycle in its normal economic concept. Rather, there appears to have been an effort to 'broaden the base' so that one group of products may be doing well while another is lagging. This variation in performance may coincide with the normal business cycle, but not necessarily so.

"One aspect of cycle protection that must be considered is that of partial integration. There have been many examples in the past, but I would like to point out a recent one. . . . [A textile mill] has become fully integrated through the converting stage. It has, however, sufficient finishing capacity to supply only possibly 60 per cent of its needs. In a period of declining volume it would expect first to cut off the custom finishers which it had been using to handle the remaining 40 per cent, continuing activities in its own finishing plants at a maximum level as long as possible. Obviously, to the extent that this can be done, costs are reduced and organizations are maintained—at the expense of others. . . . [This company] also believes it can reduce its cyclical variations through its integration

to the consumer level. In a period of poor business its people can actively fight for retail or clothing manufacturing business. Formerly when it was selling to converters, it could not reach the consumer and its only avenue to promote sales was to cut prices in competition with other mills.

"Another example is that of . . . [a manufacturer] of dairy machinery. Its business of course is quite cyclical. It has developed, however, a so-called jobbing business which has made up approximately 40 per cent of the sales in the last several years. This line includes milk bottles, caps and various other routine supply items. This jobbing line has been very beneficial. It carries a low profit margin but, nevertheless, has been helpful as it provides income for salesmen and helps to cover overhead and keep the organization together in poor periods. Furthermore, it enables the salesmen in the normal course of their jobbing calls to visit the dairies which are the markets for the company's major products. Thus, even in periods of poor business the salesmen can economically survey . . . customers' machinery needs and attempt to promote machinery sales even though the possibility of a machinery sale alone would not justify a call on the dairy."

A food machinery company merged with a chemical company, partly to reduce cyclical vulnerability. The food machinery company's business was highly cyclical because it supplied capital goods to a somewhat cyclical branch of the food business. The chemical company supplied chemicals to consumer goods industries but also had a strong growth trend that tended to mitigate the cycle. The combination of the two companies makes operations considerably less vulnerable. The president of the company further states:

"In addition, we have developed over the past twenty years a substantial volume of leased machinery income which is based on the number of units going over a machine rather than . . . on whether the customer is in position to buy equipment or not, and this we feel adds some stabilizing effect to our volume. . . .

"A few years ago we also endeavored to expand our operating base so that we would have a reasonable distribution in our volume between the sale of equipment which can be replaced only when it is worn out or when it is rendered obsolete, and the sale of consumable products, which are used up by the customer who purchases them.

"We have expanded substantially in the chemical field, and as of

December 31, 1950, our volume was 51 per cent in consumable products, and 49 per cent in the sale of machinery.

"Our machinery volume is divided between sales to farmers, fresh fruit and vegetable packers and canners and industrial users. Our chemical sales are divided between sales to farmers, industrial users and other chemical companies."

Another investment counsel makes the following points:

". . . The aircraft companies were acutely aware of the problem in World War II, and fairly widespread attempts were made to add new lines. I believe one of the companies that made floats for hydroplanes was until recently turning out canoes, which they were well suited to produce. I would suggest that the whole record of this industry be examined, . . . for purposes of ascertaining what extraneous lines survived, and the reasons why others were discontinued. My impression is that one of the companies recently abandoning its nonaircraft line regarded its experience as a success, and is ready to pick it up again in case a similar situation had to be met.

"My years . . . were spent in the development division, which gave consideration to these and other marketing problems. A great many ideas were filtered through the division, which was staffed with engineers, marketing men and technicians. Many inventions were considered, and some of the older engineering devices were examined for use at present. The effort ended with the purchase of two auxiliary lines of manufacture, the discarding of certain inventions as nonworkable, and the development of one aircraft accessory which could have only a narrow market. Unexpectedly the problem of business organization appeared important, as well as the engineering and marketing considerations involved. The record for the industry as a whole ought to show the difficulties involved and probably a number of examples of what not to do.

"A more optimistic showing might be found among the industries that lived through the depression of the 1930's and found themselves with an entirely changed list of products when business again became active. . . . [The president of a company experiencing serious trouble in the 1930's] said that over 50 per cent of the items manufactured after the depression were not made before, and he did not believe that survival would have been possible without these changes."

An executive of a food-processing plant states: "Success and growth through depression and prosperity is in part the result of our efforts to diversify, first in the food field and later in other lines.

I do not know what would happen if we had another severe depression, but I do know that our diversified lines have had sustained earnings during the recent depressed conditions in the flour business."

In a few instances, respondents questioned the effectiveness of this trend in terms of the economy as a whole. For example, a bank economist said: "I suppose some people would stress developing depression-proof products, etc., but there is no stabilizing effect on the economy as a whole in such stability of the individual firm. If everybody tries to develop depression-proof products, I am afraid that there won't be many that are in fact depression-proof."

However, this type of comment was not typical. Business executives are heavily motivated in their diversification efforts by the impact of their instability on their own community, their personnel, and, in general, their "organization." Depression causes the loss of key men, the loss of momentum, the loss of morale, and the disintegration of sales forces and contact with individuals in the market. For all these reasons, many business executives would undoubtedly favor diversification, even though it could be proven that this movement has no net effect on total employment and production throughout the economy.

It is doubtful if this could be proven, although the converse may be equally difficult to prove. It does appear at least as a possibility that if more and more companies develop policies that prevent complete collapse and help maintain income, the cumulative contractive process of a depression may be steadied or halted. The spending and investing activities may be better maintained, even though, as some of the respondents point out, certain types of company policies may merely "export" unemployment to other companies.

Contracyclical Sales and Advertising Effort

The idea that we can advertise ourselves out of depression keeps recurring. The increasing emphasis, in economic analysis, on expectation as an important factor in governing the level of economic activity may suggest that the idea is not wholly wishful thinking.[23]

Research indicates that advertising outlays as a whole have probably accentuated cyclical fluctuations, even though there are many individual exceptions.[24] Table 2 shows that in general, advertising

[23] George Katona, *Psychological Analysis of Economic Behavior*, McGraw-Hill, 1951; Hart, *op.cit.*

[24] See S. M. Ramdell, "How Philco Doubled Sales during the Depression," *Printers' Ink*, October 22, 1931.

TABLE 2
PRINTERS' INK ADVERTISING INDEXES

	Business cycle peak or trough	Combined index	Individual medium index				
			Magazines	*Newspapers*	*Outdoor*	*Radio*	*Business papers*
			(1928-1932 average = 100)				
1919	T	92.1	83.2	94.5	n.a.	n.a.	n.a.
1920	P	106.8	104.2	107.5	n.a.	n.a.	n.a.
1921	T	91.3	68.4	98.2	n.a.	n.a.	n.a.
1922		97.2	77.8	102.4	n.a.	n.a.	n.a.
1923	P	106.9	95.0	109.4	n.a.	n.a.	n.a.
1924	T	107.0	97.1	109.0	n.a.	n.a.	n.a.
1925		112.0	98.8	113.6	125.8	n.a.	n.a.
1926	P	118.0	110.8	118.3	129.1	n.a.	n.a.
1927	T	115.8	112.6	114.5	133.5	n.a.	n.a.
1928		114.7	113.8	112.5	134.7	n.a.	n.a.
1929	P	120.7	125.4	118.9	124.8	n.a.	n.a.
1930		104.9	109.2	103.7	105.6	n.a.	n.a.
1931		91.9	88.2	92.0	79.1	n.a.	n.a.
1932	T	71.8	63.5	72.9	55.8	n.a.	n.a.
1933		65.0	58.9	66.7	47.7	n.a.	n.a.
1934		74.7	76.0	73.8	51.7	n.a.	n.a.
			(1935-1939 average = 100)				
1935		83	71	95	78	69	82
1936		99	95	107	96	89	97
1937	P	110	114	108	110	107	112
1938	T	101	101	94	107	112	97
1939		107	108	96	109	123	111
1940		118	119	102	112	144	122
1941		127	128	103	124	162	143
1942		121	125	90	103	179	158
1943		152	163	114	99	213	229
1944	P	180	193	123	131	265	284
1945		198	217	132	168	289	328
1946	T	230	271	155	202	299	340
1947		268	315	210	264	296	374
1948	P	290	327	246	299	309	394
1949	T	299	314	284	296	292	389
1950		337	330	318	322	284	392

Sources: 1919-1934 data from Dept. of Commerce, *Survey of Current Business,* 1942 Supplement, p. 29. Business cycle peak and trough dates from National Bureau of Economic Research. 1935-50 data from *Printers' Ink,* June 1, 1951, pp. 61-64.
n.a.: Not available.

outlays have fluctuated closely in accord with the general level of economic activity. Paul G. Hoffman, former president of the Studebaker Corporation and chairman of the Committee for Economic Development, stated: "We American businessmen have a strange sales habit. We cut our advertising and other sales expenditures when business is tough to get and we need it. Then we let those expenditures float skyhigh when business is easy to get and we have even too much of it. This is the exact reverse of sense."

The view that advertising may actually have accentuated economic fluctuations is indicated in a study by Louis C. Wagner.[25] He analyzed advertising outlays for the cycles in the 1920's and 1930's and found that the recovery of advertising expenditures lagged behind recovery of physical production, as measured by the Federal Reserve index, in each of four recovery periods. The downturn in advertising outlays lagged somewhat behind business downturns. The same general picture occurred when advertising outlays were correlated with factory employment and total national income payments.

No doubt these lags are explained in part by the method of handling advertising budgets and appropriations. There is likely to be a lag of weeks and months between budgeting, appropriating the funds, and deciding to proceed and the actual appearance of advertising copy in print (except in cases like that of retail advertising in newspapers).

A possible reason for the cyclical behavior of advertising is the lack of accurate knowledge on the part of the business executive as to the precise power of advertising. In some cases, such as department store displays in the local newspaper, the degree of consumer response to advertising outlays and different types of copy is measurable. Much of the advertising designed to stimulate longer-run consumer good will, consumer confidence, and consumer response does not result in clearly measurable sales changes. For this reason a modest, or perhaps even major, cut in advertising outlays may not be regarded as of serious immediate concern. In some cases, especially in the field of durable producer goods, the demand for the commodity may completely disappear during slack times and the manufacturer concludes that advertising could have no perceptible effect.

Another possible reason for the cyclical volatility of advertising

[25] "Advertising and the Business Cycle," *Journal of Marketing*, October 1941, p. 124.

outlays is traceable to the fact that when contraction takes place and expenses must be cut, it is easier to do the cutting in remote places, where the resistance to cuts is least and away from where the executives live and work—the advertising agency and the media in which the agency places the ads. This suggests that the faith of the business executive in the power of advertising is not full and abiding.

In terms of marginal analysis, advertising outlays should be expanded to the point where the last advertising dollar brings in an additional dollar above production costs. But this test requires ability to measure results.[26]

How are advertising budgets determined and appropriations made by business management?

It would appear that for most companies the number of dollars invested in advertising is determined by no formal rule or procedure. Much trial and error and experience over the years may suggest that a certain fraction of the expected sales dollar be allocated to advertising. Some such approach appears to be very general. This might be called the pro cycle or built-in-cycle policy of determining advertising budgets. When sales expand or are expected to expand, this trend is reinforced by more advertising. When sales shrink or are expected to shrink, the cut in advertising outlays will feed the shrinkage. Roland S. Vaile recognizes on-peak advertising as a source of trouble and correctly attributes at least a part of the overstimulation of demand toward the peak to an elastic money and credit system.[27]

Much advertising is geared to a new product, product improvement, or new packaging. Since these innovations tend to conform closely to the cycle, this method of determining the advertising outlay likewise accentuates the cycle.

It appears also that profitability of the product, or of company operations as a whole, is an important factor in governing the volume of advertising. If funds are available or appear to be in prospect, a certain proportion is allocated to advertising.

In many cases the competitive position of the company or product may govern the size of the advertising outlay. This intercompany competition likewise feeds the cycle.

Some advertising, of course, is directed not at creating immediate

[26] Joel Dean, "Cyclical Policy on the Advertising Appropriation," *Journal of Marketing*, January 1951, p. 265, attempts to set forth criteria and standards for measuring the usefulness of contracyclical advertising and for helping management to take out some of the guesswork.

[27] In *Journal of Marketing*, July 1951, p. 81, note.

sales but at establishing the company's name or the name of the product and developing long-term good will and favorable consumer reaction. This mode of allocating advertising on a sustained basis may help mitigate cyclical fluctuations.

In short, most of the methods of determining advertising outlays seem to rest on more or less chance factors. Considerable research and analysis have gone into determining the effects of advertising. The number of variables influencing consumer acceptance and response is large and is constantly changing.

Some experience indicates that advertising can be used to offset cyclical declines, but apparently it has not been sufficiently convincing to make advertising a substantial contracyclical weapon.[28] More research of like companies producing for like markets in which the only variable is the amount of advertising is needed.

The corporate income tax tends to favor concentration of advertising during prosperity (advertising outlays being deductible) and penalizes attempts to accumulate advertising reserves to be spent in depression. Proposals have been made on numerous occasions for the creation of "deferrable advertising funds" that would be tax-free.[29]

O. A. Keyser, basing his conclusion on the cumulative effect of depression anticipations, urges that long-range budgeting for advertising should provide sustained outlays, recognizing that this probably would involve special legislation to permit the accumulation of reserve funds.[30]

The progressive corporate income tax, e.g., the wartime excess profits tax, puts a special premium upon advertising outlays during wartime booms.[31] When downward revisions of corporate income tax rates can be anticipated, as after a war period, such taxes tend to be procyclical. Timing advertising to minimize corporate income taxes tends to encourage cyclical fluctuations in advertising outlays.

Whether advertising can have a stabilizing influence on the general level of economic activity, and therefore on investment, depends on a number of factors, including the degree to which it can change expectations and overcome spending timidity as well as the rapidity

[28] Roland S. Vaile, "The Use of Advertising During Depression," *Harvard Business Review*, vol. 5, 1927, p. 323.

[29] *Advertising Age*, April 16 and 30, 1951.

[30] See "A Countercyclical Fund for Advertising," *Advertising and Selling*, April 1947, p. 34.

[31] Beardsley Ruml, "Abolish Corporate Taxes," *Commercial and Financial Chronicle*, July 5, 1951.

with which it can induce such shifts. The economist of a group of textile industries concludes that "At best such advertising outlays might aid in bringing about an earlier revival of demand."

The president of a farm-implement-manufacturing company, while skeptical of the efficacy of depression advertising in his field, did say: "One thing that we did do during that period that did produce some volume for us and did have an effect was the liberalization of terms on which the goods were sold. In other words, we financed the retail business by accepting the farmers' notes for direct credit and there were farmers that bought equipment because of that who would not have bought otherwise. There was no bank that would loan them money and they simply did not have the resources to pay cash."

There are enough individual cases where a well-adapted and well-timed advertising program has put individual companies ahead of their competitors in recovery to suggest that here is an area in which considerable additional research might well be undertaken. Some system of incentives may have to be found to reduce on-peak advertising outlays.

The economist of a rubber products company believes that a change of attitude is taking place and that business executives are educable on this matter:

"A few years ago it was commonplace to see market research departments severely curtailed in number of personnel and in expenditures during periods of slow sales. This tendency is fortunately changing for the better. The same thing is true regarding the number of salesmen. At one time manufacturing concerns used to lay off salesmen when times got bad; they do so less frequently now. It is in the field of advertising that the old and unwise tendency to reduce expenditures in the face of needs for increase seems to have held ground . . . most firmly. Advertising expenditures still lag very sharply when sales fall off. . . .

"In this particular it is my own belief that the wisest course is to maintain a more-or-less regular and steady absolute volume of advertising, selling and market research expenditures during good times and bad. . . .

"But this is clearly a question on which businessmen are susceptible to education at the hands of their advisors in the trade association field, their marketing consultants and the writers in the business press. Incidentally, there is little uniformity of thinking among such groups as to which is the best course. . . ."

Contracyclical advertising standing alone would be a weak reed to rest upon. If it is coupled with other countermeasures, as, for example, in the penultimate quotation above, it may have some influence. This is a matter that may merit further systematic research.

Debt during Expansion and Depression

Business booms are financed to a considerable degree by expansion of debt. During periods of contraction debt is repaid. Most of the respondents to this inquiry conclude that this sequence should and could be substantially altered, thereby either mitigating depression or making the firm and the economy less vulnerable in a depression.[32]

Corporate debt expanded rapidly during the 1920's. From 1929 to 1935 nonrailway net corporate debt declined from $73.9 billion to $59.6 billion. In this period, net long-term debt declined more moderately, from $33.8 billion to $30 billion, while short-term debt dropped from $40.1 to $29.6 billion.[33] In the recession of 1949 there was also a minor decline in debt. While fluctuations in capital formation are viewed as the heart of the cycle, the rise and fall of debt play important facilitating roles.

Debt expansion is usually accompanied by an expansion of the money supply, and debt repayment by its contraction. To the degree to which this is the case, the cyclical character of our economy is deepened. The effects of slowdown in collections, insolvencies, difficulties in debt servicing and refundings—of a systemic "linkage of risks"—may spread throughout the economy when the general level of economic activity declines. The corporation income tax law places a high premium on financing growth through debt creation. "Trading on the equity" and artificially low interest rates work in the same direction.

Is it possible and desirable to finance business expansion to a greater degree without debt creation? The importance of the prompt investment of the community's current savings, of course, is fully recognized. Is it possible for savings institutions and financial organizations to take any practical steps to reduce the volume and increase the cost of financing toward the peak of the boom, and raise the volume and decrease the cost during periods of contraction?

The economist of an insurance company was inclined to question the contracyclical power of the nonfinancial individual enterprise

[32] Editor's note: For another view of the function of debt in relation to the cycle, see the paper by Jacoby and Weston, below.

[33] Dept. of Commerce, *Survey of Current Business*, October 1950, p. 9.

but is convinced that private financial institutions have an important contribution to make in terms of loan policy, financial instruments, and the like, a challenge to which they have not fully risen. He put his views in these words: "... the financial organizations are actually more important factors in cyclical fluctuations—or more accurately, the causes of cyclical fluctuations—than the nonfinancial. . . . For these financial organizations there is, I feel, a very clear line of action which would at least help to mitigate cyclical fluctuation and is at the same time consistent with profit maximization. This is to act more determinedly in applying the knowledge which has now been developed about their relation to cyclical fluctuation."

Then he gave one reason for this view: "A number of studies of different groups of loan and investment items all show quite clearly that losses and costs are largest on loans and investments made in the boom, and that losses and costs are least on loans and investments made during the lower phases of the cycle; in addition, yield is usually higher during the depressed phase. Financial institutions, it appears, can therefore improve their results by acting in a contracyclical manner. And I believe that if they did so their force on the economy would be found to be sufficiently large to make a major contribution against the cycle. I suspect that this influence would be greater than anything the nonfinancial institutions can reasonably be expected to do if they stay in character."

In reply to a request for his views as to how these institutions could be induced to operate contracyclically, this economist said:

". . . A lot of information has been developed, especially at the National Bureau of Economic Research and the financial concerns have contributed considerable sums to the research. The information has not yet all been published and so there will be further impact from additional publications. It is encouraging that discussions of the information occur at significant places like the Graduate School of Banking of the American Bankers Association and the Life Officers Investment Seminar of the American Life Convention.

"But I regretfully expect that it will receive the greatest attention and consideration the next time we have a considerable slump and investment mortality and morbidity. The depression of the 1930's largely stimulated the development of the information. The next slump may bring it into general use."

These are challenging ideas and they appear to merit considerably more attention than they have received. It appears that American

business is becoming more and more skeptical about the wisdom of incurring debt.

Net corporate debt (exclusive of railways) stood at $73.9 billion in 1929. By 1949, the figure had risen to $99 billion. In this same period, long-term debt grew from $33.8 billion to only $44.3 billion, while short-term debt increased from $40 billion to $55 billion, in spite of the relative expansion of the corporate sector of the economy, the substantial real growth of economic activity, and the depreciation in the value of the dollar.

This would suggest that American business has been developing what may be a desirable resistance to debt. It is sometimes suggested that corporations now do not need to go into debt because of the rise in corporate liquidity. Liquid assets of corporations (excluding public utilities, railroads, corporations engaged in finance and insurance, etc.) rose from $21.4 billion 1929 to $44 billion in 1947, a rise of 106 per cent, but sales and receipts from operations rose from $124 billion to $317 billion, or by 155 per cent, in the same period. From 1929 to 1949 the gross national product increased, in dollars, by 148 per cent. The rise in corporate debt since 1929 has lagged behind the rise in these figures.

Respondents in this inquiry, very generally, either advised against debt incursion during boom times or stated that company policy was committed to that in principle, or that the principle was followed closely. The economist of a building supply manufacturer stated that his company's policy was to reserve debt increase for depression periods only.

The economist of a fat and oil products manufacturer stated: "We experience major fluctuations in production and trade, and consequently in employment, chiefly because of the way in which we use our credit system. We permit persons buying for consumption purposes to seriously misuse credit. . . . We also permit the managers of enterprise to do the same thing . . . [credit should not] be used to finance the purchase of any commodity which is not to be sold to obtain funds with which to retire the credit extended—mortgages alone might be excepted. . . . Because I place so much importance on the use of credit, I think it would be beneficial if the managers of enterprise would be more cautious when borrowing money to expand capacity. It is obvious that managers miscalculate their financial budgets with the result that they invest working capital in fixed assets and are required to borrow money with which to replace the immobilized working capital when a cyclical high level in busi-

ness activity is being experienced. . . . [The] important objective in the interest of stabilization would be to develop a credit system which could not be so easily misused."

The general manager of a farm-implement-manufacturing concern, which has been making a special study of contracyclical capital formation, has given this matter such careful consideration that he merits quotation at some length:

"One of the greatest opportunities, in my opinion, for [business to make] a real contribution to the over-all recovery during a period of this kind . . . has to do with planned expansion and capital investment.

". . . most of it is done during a period of high business activity when building costs are very high, material and labor prices are way up and looking back over the long period of years . . . most companies would have not only been very much further ahead if they had expanded their plant facilities during those periods which would have given a lot of stimulus to the over-all recovery but such expansion would have cost them a lot less money than doing it when everybody else was wanting to do it and when productivity was at a peak.

"If we would have had the foresight during the depression years to have made some long-term loans and completed even a moderate portion of the expansion that has taken place in our company since 1935 we would have benefited tremendously. . . . We would have had a much larger share of the market on many items on which our design is such that they are in great demand, far in excess of what we could supply. We would have had, in my opinion, enough increased volume and profits to have paid for the expansion several times over and the amount of investment would have been a great deal less because we would not have paid the high labor and material costs which we have paid and which have been growing progressively higher since that time. Our own company doubled the amount invested in buildings and equipment since 1941 so you can see what a material advantage it would have been. I think that our history has been duplicated by practically every other industry in the country.

"It might be necessary to work out some long-range financing on a favorable basis, but it would be much better if private industry could provide that sort of activity rather than rely on public works during periods of depression. It takes a considerable amount of selling to get boards of directors to appropriate moneys for expansion

at a time when present facilities [are] more than adequate to take care of the demand, but the fact . . . remains that, over the past 50 years in this country, had industry expanded during these periods, it would have had a major effect in leveling the business cycle and eliminating some of these extreme fluctuations."

The president of a large chemical-manufacturing concern that has experienced spectacular growth states: "We favor equity financing [in contrast to obtaining some portion of corporate capital by debt financing] for many reasons, perhaps the most important of which is the feeling that equity financing would strengthen our ability to weather business fluctuations whatever their cause might be."

The president of a company manufacturing paper and paper products that has also been giving exceptional attention to anticyclical policies discusses debt in these terms: "It seems axiomatic that the strength of the enterprise—its ability to exist—will be strengthened if in periods of high business it uses a substantial amount of its earnings to retire its debt so that when and if there is a downturn its fixed charges will be minimized. Furthermore I assume as a matter of pure theory that short-term rather than long-term debt is preferable if the management is certain of its ability to repay the debt during the shorter term, again leaving it with a minimum of fixed charges. . . ."

The president of a rubber products company that has also taken numerous steps to reduce the cyclical impact puts the matter in these words: "It is obvious that the company with ample cash and a financial structure based on equity securities has the most sound position at the top of the cycle. From a financial viewpoint, a company should be prepared to expand when things look the worst, and be prepared to contract when things look the best. . . ."

The inability to expand capital investment during depression periods is recognized by many respondents as a serious hindrance to a contracyclical investment policy. An economist who is associated with numerous business institutions and companies and who has served as a consultant over a good many years puts the matter in these words:

"There are obvious advantages in being in a position to minimize expense cuts and to make capital expenditures and other unusual expenditures of various kinds at the bottom of the market, with important benefits to both the corporation and the general economy. Such expenditures are not likely to be made in the depression phase

of the business cycle unless there are surplus funds on hand, particularly if there is corporate debt outstanding. Certainly an important part of the impetus toward recovery from depression is the resumption of investment in one form or another by companies and individuals who still have available cash.

". . . I should think the greatest deterrent to countercyclical expenditures in time of depression would be the presence of debt in the capital structure. Of course, the following of these policies is more easily said than done, but it seems to me the subject of cash balances in industry has been a much neglected one."[34]

The chairman of the board of a food-processing plant states the company policy as follows: "In most businesses the capital obtained from the sale of common and preferred stock should be sufficient to cover the fixed investments in brick and mortar and equipment, together with working capital for average inventories and receivables. Then commercial credit can be used freely to take care of seasonal peaks and short-term requirements."

An economist for another food company states his company's policy as follows: "This is a question which is easy to answer in theory, difficult to apply in practice. In theory, one should contract debts and short-term loans in a depression and should pay them off with equity capital in prosperity. However, as a practical matter, it has been very difficult to raise large amounts of equity capital since the war on anything like a reasonable basis in comparison with the cost of debt or preferred stock money. However, our firm has attempted to use as little short-term financing as possible during the postwar period so that we will be in a position to use this type of financing if we can find a profitable use for it in a period of depression. . . ."

In a study of business executive motivations in buying equipment the question was asked: "To what extent is the customer's current liquid position a factor in his decision to buy or not to buy your product?" Eighty-two per cent of the replies stated that the liquid position was "determining or important."[35]

Insolvencies, bankruptcies, defaults, and refunding problems on a large scale, as in the 1930's in the case of railways, hotels, real estate companies, etc., create spending timidity and slow down forward

[34] The National Bureau of Economic Research has been concerned with this problem in some of its studies, particularly in the Financial Research Program and the Studies in Business Financing. The study by Friedrich A. Lutz, *Corporate Cash Balances, 1914-43*, NBER, 1945, is of particular relevance.

[35] George Terborgh, *Dynamic Equipment Policy*, McGraw-Hill, 1949, p. 229.

planning until "the picture clears."[36] In this period one large life insurance company found itself the owner of 138 hotels.

Assuming that the shift away from debt financing during boom periods continues, it would appear that when markets softened and demand receded, many companies would find themselves in a less vulnerable position. If this in turn placed these companies in a better position to finance improvements and extensions by borrowing during periods when the economic outlook is less favorable, capital formation might not decline so precipitously or so much. If in addition such a shift in financing did not retard the prompt offsetting of savings, it would seem to be a move in the right direction.

Employment Stabilization and the Guaranteed Wage

The regularization of employment and greater continuity of wage payments are widespread management objectives. Much has been accomplished with respect particularly to seasonal and other short-run instability of production or sales, or both, as previously pointed out. In a few cases, guaranteed annual wage plans have been worked out and adopted. Would a more widespread adoption of such plans be beneficial to the individual company and its employees? Would it make the economy, as a whole, more stable? As to the former, the answer given is frequently in the affirmative with the qualification "wherever practical." As to the latter, most students have answered in the negative.

Alvin H. Hansen and Paul A. Samuelson, in a report for the United States government, drew these conclusions:

"From a dispassionate appraisal of the efficacy of guaranteed wages, the device would appear to be, by itself alone, a weak reed upon which to rely in an attack on such widespread unemployment as our economy has encountered in recent years. Indeed it would be nothing less than tragic if, by management initiative or governmental and trade-union pressure, an ambitious program of guaranteed wages was undertaken without at the same time instituting other more important programs of government and business designed to promote high and stable levels of production, income and employment. . . .

"If other governmental measures were not instituted to cope with depressions, sober quantitative appraisal of the relationship of pay

[36] "By 1932, 81 per cent of the nation's hotels were in the hands of the courts, receivers, trustees and lending institutions." American Hotel Association, *op.cit.*

rolls to corporate net worth shows that insolvency and bankruptcy could well be the price of any guaranteed wage program which was not carefully limited in its coverage and duration. . . .

"Unless a general, many-sided attack is made upon the problem of business cycle stabilization, together with a step-by-step industry-wide attack upon seasonal instability of production, guaranteed wage plans are likely to be so costly as to be doomed to failure."[37]

This view is generally shared by other economists.[38] Some of them take the view that if a company tends to be stable cyclically or has worked out a regularization program, there is no harm and possibly some good in formalizing a guarantee of employment.

The business executives who have adopted the guaranteed wage, almost without exception, stress that their guaranteed wage program is a result of *prior* regularization policies and programs. For this reason, Jay C. Hormel, chairman of the board of the George A. Hormel Company, Austin, Minn., states that he now regrets that his stabilization program has become identified with the phrases "annual wages," "guaranteed wages," and the like. Richard R. Deupree, president of the Procter and Gamble Company, another leader in the field, has viewed the guarantee as a result of long-range management policies to regularize production and sales. The guarantee is incidental, especially since most companies reserve the right to terminate it.

Important for this paper, however, is the basic question as to whether such company guarantee programs are beneficial or harmful to the economy as a whole. At least one attempt has been made to study the impact of a company stabilization program upon the community.[39] This study by Chernick attempted to determine the impact of the Hormel plan (put into operation during the depressed 1930's) on spending habits of the employees of the company and on others in the community, and its effect on capital formation. Austin is a "one-industry" town. By an ingenious method, Chernick compared changes in the community with changes in similar communities and larger regions. Unfortunately for the conclusiveness of

[37] *Guaranteed Wages,* report to the President by the Advisory Board, Office of War Mobilization and Reconversion, U.S. Govt. Printing Office, 1947, p. 417.

[38] A. D. H. Kaplan, *The Guarantee of Wages,* chap. 7. Several other economists have come to similar negative conclusions. See particularly Rita Ricardo, "Annual Wage Guaranteed Plans," *American Economic Review,* December 1945, p. 870; Wassily Leontief, "The Pure Theory of the Guaranteed Annual Wage Contract," *Journal of Political Economy,* February 1946, p. 76.

[39] Jack Chernick, *Economic Effects of Steady Employment and Earnings,* University of Minnesota Press, 1942.

his studies, the Hormel Company experienced substantial growth during the period in question so that it was not possible to isolate completely the effects of this growth and the effects of the stabilization program.

Chernick's cautious conclusions on the effects of the program and policies merit quotation at some length:

". . . . They increased the velocity of circulation of money and, in a sense, the volume of purchasing power. . . . The Hormel employee was in a position to estimate his future earnings and to plan his expenditures in such a way as to permit him to buy a variety of durable consumers' goods without first accumulating the sum which those goods would require if purchased for cash. The local merchant, recognizing that the earnings of the Hormel employee were guaranteed for at least a year, displayed greater readiness to sell durable consumers' goods on an installment basis. The agencies in the city that make loans to individuals for buying or building a home also considered the Hormel employee a good credit risk after the introduction of the annual wage.

"The effect of Hormel policies on the consumption habits of company employees is evident in the fact that the proportion of purchases made on an installment basis was greater among Hormel employees than in the rest of the state and in various other centers in the United States. It may also be seen in the fact that the percentage of home-owners and the frequency of automobile ownership were greater among Hormel employees than among the residents of 29 small cities in four regions of the United States. . . .

"These facts support the conclusion that . . . the ultimate effect was an increase in employment in the community as a whole. Moreover, by stabilizing its own employment and payroll, the Hormel Company introduced elements into the economy of the city that made it possible for other enterprises to achieve stability of operations at a higher level of economic activity.

". . . . It is worth noting too that the building trades in Austin have gone a considerable distance toward overcoming variations in employment from season to season.

"With respect to the broader economic effects of stabilization, it is possible to conclude that, if the individual employer can introduce greater stability of operations, the direct and indirect effects may help greatly to mitigate or to prevent the collapse that is at present associated with the cyclical downswing."

Whether these beneficial consequences were caused by the formal guarantee of wages, or rather by the confidence on the part of the employees and general community that this company had solved the instability problem (the solution being symbolized by the guarantee) could be debated at length.

Whether Chernick's tentative conclusions are acceptable or not, this study does suggest a point of departure for a methodology that may be useful in any further studies of the interrelation between company regularization programs and systemic stability.

Limits of this Study

The foregoing comment by no means exhausts the scope of managerial discretion that may have contracyclical impact and be worthy of further exploration. Nor does it include all of the ideas and suggestions made by respondents to my inquiry.

Largely omitted from discussion are the following: wage policy; personnel administration; inventory policy with respect to forward purchases, quantities, and pricing; cost accounting and profit calculations; depreciation policy; and special financial reserves for lean years and for smoothing out rates of disbursements.[40] In most of these areas, responses were less frequent and often more vague and indeterminate. In some of these matters, most of the respondents either had not experimented much or had not considered them sufficiently to justify positive conclusions. This was less true in the cases of better inventory accounting and financial reserves. Several of these topics come within the purview of other papers prepared for this conference and, therefore, are much more thoroughly dealt with than could be the case in this paper. It should be said for the record, however, that there is a substantial additional inventory of experience and exploration in the responses that merits further review.

Perhaps it should also be said that, under the program outlined by the planning committee for the Conference, this paper was intended to explore only the *indirect* approach to the stabilization of investment. Other papers deal with a number of theoretical and systemic issues that will test the direct approach of the individual firm in its relation to the stabilization of the economy.

[40] Joel Dean, "Measurement of Profits for Executive Decisions," *Accounting Review*, April 1951, pp. 185-196, shows the need for a third set of accounts in meaningful economic terms, without denying the need for statutory and historical cost accounting. Similar views are put forward in George Terborgh's *Inflation and Postwar Profits*, Machinery and Allied Products Institute, 1949.

Conclusions

1. Systematic attempts to make the individual firm less vulnerable to depression are widespread, and business executives and business economists believe that considerable progress has been made.

2. The individual company has community, industrial relations, and public relations problems that it is increasingly inclined to solve by regularization efforts.

3. In terms of the individual company approach to the regularization of investment, the indirect attack through policies of pricing, product mix, supplementary lines, marketing and sales efforts, finance, etc. may be fruitful.

4. That these attempts make the economy as a whole more stable is suggested, but is not wholly clear. Whether they do or do not depends to a considerable degree on what specific-firm policies are followed.

5. To some extent, certain individual-company regularization policies "export" unemployment and instability to other companies. But in an expanding economy such readjustments, imposed over an extended period of time, can probably be expected to be absorbed and may have few adverse systemic effects. Other policies, such as diversification, may simply reduce the instability of individual-firm operations without contributing directly to over-all economic stability.

6. By reducing the vulnerability in depression or the degree of decline company by company, the cumulative downtrend of a depression may tend to be slowed down and halted. Such lessened vulnerability of the individual firm may not only reduce the risk of outright business failure or serious curtailment but also prevent panic type reactions that spread among firms and financial institutions.

7. A combination of company policies suitably adapted case by case is likely to be more effective than any one policy standing alone.

8. Several desirable company policies may require statutory changes.

9. The growing understanding among business executives and their advisors and consultants of the nature of the business cycle may be a fact of major importance.[41]

[41] An economist may be pardoned for attributing significance to the growth in the employment and use of economists in business. The "Capital Goods Economics" seminars of the Machinery and Allied Products Institute and the Economic Institutes of the Chamber of Commerce of the United States, conducted over a period of years, have reached hundreds of business executives.

10. Nothing in this paper should be interpreted as in any way deemphasizing the essential role that contracyclical fiscal and monetary policy should play.

11. An extensive literature on individual-company policy of both a theoretical and guidepost character would encourage more experimentation and exploration by the individual company.

12. More research, both in the theory and in the practice of the individual-firm approach related to the good health of the economy, would seem desirable.