CONSUMER DURABLE GOODS INDUSTRIES

AND ECONOMIC INSTABILITY

By

DOROTHY COOPER DEMPSEY

Bachelor of Science

Arkansas State Teachers College

Conway, Arkansas

1958

Submitted to the Faculty of the Graduate School of
Oklahoma State University
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE
August, 1961

CONSUMER DURABLE GOODS INDUSTRIES

AND ECONOMIC INSTABILITY

Thesis Approved:

Julian H. Bradshaw
Thesis Adviser

W Tranter

Robert MacVicar
Dean of the Graduate School

PREFACE

Very little recognition has been given the impact of consumer durable industries on economic stability. The purpose of this study is twofold: (1) to show that the fluctuations in these industries substantially augment economic instability and (2) to examine the effectiveness of existing economic policy measures in combatting the destabilizing effects of these industries.

To make this study, it was necessary to collect a great deal of statistical data. Some of the problems encountered here were having a series discontinued indefinitely pending revision, finding that some series were not sufficiently subdivided to depict activity in consumer durable industries, and having conclusions reversed by the sometimes unusual discrepancy in series before and after revision.

Indebtedness is acknowledged to Dr. Julian H. Bradsher for his valuable guidance, and for the assistance given by Dr. Richard H. Leftwich and Dr. Rudolph W. Trenton; and to Duck W. Nam and other classmates for their helpful suggestions and criticisms; and to Louisiana Polytechnic College librarians for their aid in verifying the documentation of this study.

Special gratitude is expressed to Jack Dempsey, my husband, for his assistance in preparation of the thesis manuscript.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Statement of the Problem

The volatile element in economic output is considered to be investment goods. Thus, it is fluctuations in this type of output that economists tend to emphasize when considering economic stability. At the same time, they tend to view the production of consumer goods as being rather stable and relatively unimportant in this respect. The hypothesis of the writer is, however, that there is a component in the output of consumer goods which is highly volatile--even more so than the output of investment goods. In addition, the writer believes that this specific type of consumer goods production affects the use of a sufficient share of total resources for its variable character to influence the stability of the economy as a whole. This highly-fluctuating part of consumer goods output is consumer durable goods.

While some economic writings point to the fluctuating character of consumer durable goods, the length of such expositions is usually limited to two or three paragraphs--and in some cases to two or three lines. In view of this, this paper consists of a study of the importance of consumer durable goods industries as a fluctuating part of the economy in the postwar world and the responsiveness of this economic sector to existing stabilization measures.

Plan of Study

The plan for studying the problem delineated above is as follows. Chapter II will examine the share of total resources involved in the production of consumer durable goods. Also, the trend toward the utilization of a larger proportion of total resources by this part of the economy will be discussed. The purpose of this chapter is to make it clear that fluctuations in the supply of goods flowing from consumer durable industries have ramifications great enough to substantially affect the system as a whole.

Chapter III deals with the nature and causes of instability in industries supplying consumer durable goods. Charts are presented which compare consumer durable goods production and expenditures with economic series which are commonly recognized as being very changeable, thus pointing up the instability in consumer durable industries. Then the pattern of this instability is examined to show that it is such that it helps generate business cycles. Finally, we study in detail the behavior of consumer durable goods during the postwar recessions. In these recessions, we consider the declines in consumer durable production as a response to the highly variable demand for such goods. Then by determining the variables behind demand for consumer durable goods, we can arrive at some of the ultimate forces behind instability in consumer durable production.

Chapter IV takes up the responsiveness of the above mentioned variables to existing stabilization policy. Taking each variable one at a time, we point out the following about it: (1) the relationship existing between the variable and consumer durable expenditures and (2) the policy measures which could be used to counteract the variable's destabilizing effect on consumer purchases and production of such goods.

The summary of this paper and conclusions reached are laid out in Chapter V, which delineates the findings with regard to the importance of consumer durable industries as a fluctuating sector of the economy and the responsiveness of this economic component to current destabilization measures.

Method

The term consumer durable goods designates those commodities so classified in the Federal Reserve System's index of output of consumer durable goods. Table I shows the items classified as consumer durable goods. In this table, the goods are grouped as to whether they are "Major Durables" or "Other Durables." Major Durables are further divided into "Autos" and "Major Household Goods," and the latter is again broken down into the various categories of household furnishings and equipment. Other Durables also has two major subdivisions: "Auto Parts and Tires" and "Miscellaneous Home and Personal Goods," each of which is further divided into its various components. Table I also shows the relative importance of the various consumer durable goods in the base period of 1947-49. This information will aid the reader in assessing the economic impact of percentage declines in production of various consumer durable goods as they are discussed in Chapter III.

In Chapter III of this thesis, we will be especially concerned with measuring the variation in supply and demand for consumer durable goods. In view of this, the methods used to determine the amount of such variation will now be taken up. Fluctuations in the supply of consumer durable goods will be measured by variations in the Federal Reserve System's output of consumer durable goods index. As can be seen in Table I, autos and major household goods each constitute about one-third of this index, and the remaining third represents auto parts and tires and miscellaneous home and personal goods.

Variations in the output of consumer durable goods occur largely in response to two major sources of demand: (1) expenditures by consumers for durable goods and (2) expenditures by distributors to maintain or expand their inventories of such goods. Variation in consumer demand for durable goods is measured by changes in personal consumption expenditures for durable goods, an index published by the Department of Commerce. However, statistics are not available on variations in inventory spending for these commodities (Department of Commerce series on changes in inventories do not distinguish between producer durable and consumer durable inventories). The method used in this paper to arrive at some qualitative estimate of the role played by fluctuations in inventory demand in causing supply variation is to compare the percentage changes in the index of consumer durable goods output and the index of personal-consumption expenditures for such goods. For example, if there is a 20 per cent decrease in the supply of consumer durable goods coupled with only a 2 per cent decline in consumer expenditures for them, it can be inferred that part of the decrease in supply must have been a response to reduced inventory investment.

It is recognized that there are important differences between the two indices being compared. While these differences would prevent

TABLE I

CONSUMER DURABLE GOODS OUTPUT INDEX:

RELATIVE IMPORTANCE OF COMPONENTS

		1947-1949 proportion
Consumer durables--total		100.00
Major durables		69.72
Autos		32.10
Major household goods		36.13
Furniture and floor coverings		15.32
Household furniture	11.31	
Floor coverings	4.01	
Woven carpets	2.60	
(Tufted and hard-surface floor coverings)	1.41	
Appliances and heaters		15.60
Major appliances	11.88	
Ranges: gas ranges and electric ranges	2.60	
Refrigeration appliances: refrigerators; freezers; (room air conditioners and dehumidifiers)	4.98	
Laundry appliances; washing machines dryers and ironers	2.51	
Vacuum cleaners	.79	
(Other major appliances)	1.00	
Heating apparatus	3.72	
Furnaces	2.75	
Water Heaters: (gas water heaters); (electric water heaters)	.97	
Radio and television sets		5.21
Radio sets	3.42	
Auto radios	.74	
Household radios	2.68	
Television sets	1.79	
Table model TV	.85	
Console model TV	.94	
(Auto trailers, bicycles, and motorcycles)		1.49

TABLE I (Continued)

Other consumer durables		30.28
Auto parts and tires		14.00
(Motor-vehicle repair parts)	9.79	
(Auto replacement tires)	2.71	
(Replacement batteries)	1.50	
Miscellaneous home and personal goods		16.28
(Small appliances, records, and electrical products not elsewhere classified)	2.78	
(Cutlery)	.96	
(Home glassware and pottery)	1.73	
(Household glassware)	.70	
(Household pottery)	1.03	
(Luggage and related goods)	2.87	
(Watches and clocks)	2.11	
(Ophthalmic goods)	.73	
(Other miscellaneous consumer durables)	5.10	

Source: R. M. Snyder, Measuring Business Changes, (New York, 1955), pp. 177-178.

arriving at a quantitative estimate of the amount of decrease in inventory investment during a certain period, they do not prohibit qualitative statements as to whether output variation is more or less a response to changes in consumer durable inventories.

Before leaving this subsection, it is necessary to define a term which will be used a good deal in Chapters III and IV. This term is "Discretionary Income", and it is important because it is a significant determinant of expenditures on consumer durable goods. Discretionary income is arrived at by extracting from disposable personal income the following:[1]

A. Imputed income and income in kind

B. Major fixed commitments, including

   1. Scheduled home mortgage debt repayments
   2. Consumer installment debt repayments
   3. Payments into insurance and pension reserves (net of receipts)
   4. Homeowner taxes
   5. Tenant rent

C. Essential expenditures, including

   1. Outlays for food required to maintain per capita physical consumption of food at its average level in the years 1947-49
   2. Outlays for clothing required to maintain physical apparel purchases at their per capita level of 1951
   3. All medical, health insurance and death expenses
   4. All outlays for household utilities
   5. All purchases of local transportation

---

[1] "Discretionary Income," Conference Board Business Records, XV (1958), 196-199.

CHAPTER II

ECONOMIC IMPACT OF ACTIVITY IN CONSUMER DURABLE INDUSTRIES

We are interested in establishing the cyclical behavior of consumer durable goods production. However, before fluctuations in an economic sector are important, it must be shown that a significant share of the economic resources are tied up with this part of the economy. When this is true, instability is meaningful in terms of substantial variation in income, output, and employment. The purpose of the following discourse is to give some idea of the share of our resources connected with industries supplying consumer durables.

Manufacturing statistics are not broken down in such a way that we can tell what percentage of our labor force is employed in the production of these goods. But employment data for the production of a few specific consumer durables adequately convey the idea that a substantial number of people would be affected by instability in this part of the economy. For example, four-fifths of a million people are employed in the manufacturing of automobiles alone. Around 370 thousand employees are required to turn out the annual supply of furniture and fixtures while about 50 thousand more are needed to manufacture carpets, rugs and other floor coverings. Electrical appliance output also utilizes close to 50 thousand employees.[2]

Some insight into the amount of materials other than labor used to produce consumer durables can be gained from looking at the amount and variety of finished durable goods delivered to consumers during the first ten years of the postwar period. In this period alone, consumers purchased almost 40 million automobiles, over 30 million refrigerators, almost 27 million washing machines, 10 million electric ranges, 24 million vacuum cleaners and nearly 37 million television sets.[3] At this time it should be pointed out that instability in consumer durable production ramifies into the industries which supply raw materials going into such production. For example, reduced automobile output means decreased sales for iron and steel foundries, rubber plants, glass manufacturers and so on. Manufacturers of stone, clay and glass products depend on makers of household appliances to purchase their output as do producers of electrical equipment. The activity of carpet manufacturers influences activity in scouring and combing plants, yarn and thread mills, and knitting mills--just as variation in furniture production influences the demand for products of logging camps and contractors, sawmills, and fabric manufacturers.

A large share of resources is tied up in consumer durable goods industries also in the form of capital for the production of such goods. For the year 1957, the investment in new plant and equipment for motor

---

[2]U. S. Department of Labor, Employment and Earnings, August, 1957, pp. 2-7.

[3]"A Long Look at the Postwar Boom," Conference Board Business Records, XI (1954), 432.

vehicles and equipment ran up to $1,058 million; and this is just one of the consumer durable goods industries.[4] In other industries statistics do not allow us to distinguish between investment for consumer durable production and producer durable production. But, considering the plantand equipment needed for the production of refrigerators, ranges, laundry appliances, television sets, etcetera, and the inventory carried by these manufacturers, it is conceivable that the value of such investments runs into many billions of dollars each year.

In the above, we have tried to get at the share of our resources which are tied up with the production of consumer durable goods. Perhaps we can view this problem in a more concise way and from a different angle by looking at the amount consumers spend on these goods. Since the war, or from 1946 to 1958, $392 billion--almost as much as Gross National Product in 1955--has been spent on consumer durable goods.[5] And in recent years, 1957, 1959 and 1960, consumers have spent over $40 billion annually on consumer durables. This means that in each of the above years, consumer durables have accounted for almost 10 per cent of Gross National Product--or that approximately 10 per cent of our total resources are being channeled into the production of these goods.[6]

From the discussion thus far, it is apparent that a significant share of our resources flows into the production of consumer durable goods; and, therefore, instability in this production can cause substantial variation in output and employment not only in industries

---

[4]U. S. Department of Commerce, U. S. Income and Output, 1958 Supplement to the Survey of Current Business, p. 193.

[5]Ibid., pp. 120-121.

[6]Federal Reserve Bulletin, XLVII (1961), 362.

supplying these goods, but in supporting industries into which there have been ramifications of such instability. Now let us focus our attention on the future role of consumer durable industries in the economy.

Will variations in consumer durable industries in the future be more or less serious with respect to economic stability? That is, will the share of economic resources absorbed by this part of the economy be increasing or decreasing relative to the share used in the rest of the economy? Will they be increasing or decreasing in an absolute sense? Let us start pursuing the answer to these questions first by looking at the growth in the share of total consumer spending going for durable goods. A study of trends from 1869 to 1929 made by Simon Kuznets shows an increase in the ratio of consumer durable goods spending to total consumption expenditures from about 8 to 9 per cent at the beginning of this period to 10 to 11 per cent at the end.[7] Throughout the 30's, the share of durable spending was considerably smaller as a result of the great depression; but in 1941 such expenditures reached 12 per cent of total consumer spending. During World War II, this ratio again sank to low levels because of restrictions on the flow of resources into consumer durable goods production. In postwar years, after reconversion, 13 to 14 per cent of consumer spending was on durable goods; and in 1950, anticipatory buying because of the Korean crisis raised this ratio to more than 15 per cent.[8] The current ratio of consumer spending on

---

[7]William Fellner, Trends and Cycles in Economic Activity (New York, 1956), p. 64.

[8]Erik Lundberg, The Business Cycle in the Post-War World (New York, 1955), pp. 15-16.

durables to total personal consumption spending is about 14 per cent.[9] Thus, in the last 90 years, this ratio has increased from 8 to 14 per cent, or consumer durable goods have almost doubled their share of total consumption expenditures.

It appears that the proportion of disposable income going to consumer durable goods purchases increases as income rises. In 1929 this proportion stood at 11 per cent. During the depression years, it declined to 8 per cent, falling further to 5 per cent during World War II because of the restrictions in this period which were mentioned earlier. In postwar years, this proportion has been slowly climbing upward as income increases with the exception of the 1953-54 and 1957-58 recessions. In 1946 the ratio of consumer durable expenditures to disposable income was 10 per cent. After reaching a high of 14 per cent during 1950 because of the Korean War, this ratio has fluctuated between 12 and 13 per cent in recent years.[10]

If the ratio of consumer durable expenditures to total consumption spending and disposable income remained constant, these industries would still increase in absolute economic significance as national income and consumer spending continue to grow. The trend of increases in these ratios indicates the speed with which consumer durable industries are becoming a more significant part of the economy. But let us turn from looking at increases in the share of resources going to this sector in relative terms and consider its growth in terms of constant (1954) dollar expenditures.

---

[9] Federal Reserve Bulletin, XLIV (1958), 1223.

[10] See Table II, p. 48.

In 1929, expenditures on consumer durable goods totaled $14.9 billion. By 1957, the amount of this spending had increased by $23.2 billion to $38.1 billion. In the postwar years spending on these goods has increased at the rate of $1.7 billion a year. If this rate of increase should continue, 40 years from now or around the turn of the century, spending on these goods would total $106 billion annually or over one-fifth of today's Gross National Product.[11]

To summarize, the ratio of consumer durable spending to total spending on consumption has almost doubled in the last 90 years. Likewise the ratio of consumer spending on durable items to disposable income appears to be gradually climbing upward as national income increases. In terms of constant (1954) dollars, expenditures on durable goods has increased over $23 billion since 1929 and has been increasing at the rate of $1.7 billion a year in the postwar period. These trends clearly imply that activity in consumer durable goods industries will have a much greater impact on economic stability in the years to come.

---

[11] U. S. Department of Commerce, U. S. Income and Output, 1958 Supplement to the Survey of Current Business, pp. 118-119.

CHAPTER III

NATURE AND CAUSES OF INSTABILITY IN CONSUMER DURABLE INDUSTRIES IN THE POSTWAR PERIOD

It was established in Chapter II that a substantial share of total resources flows into the production of consumer durable goods, and that a trend exists toward the utilization of a greater share of total resources in the production of these goods. From this it was concluded that instability in consumer durable industries would result in substantial variations in income, output and employment.

Instability in Consumer Durable Goods Industries

The instability in consumer durable goods production since World War II is immediately obvious from Figure 1. In the ten-year period depicted, this series has ranged from less than 100 per cent of its 1947-49 average to over 150 per cent. Figure 1 compares consumer durable output with industrial production, a series consisting of manufacturing and mining output. Although industrial production generally has fluctuated more than the economy as a whole, output of consumer durables has shown greater variation than has this volatile series.

Investment outlay on plant and equipment is often considered the most volatile component of Gross National Product. A comparison of

FLUCTUATIONS IN CONSUMER DURABLE OUTPUT AND INDUSTRIAL PRODUCTION
(1947-49 = 100)

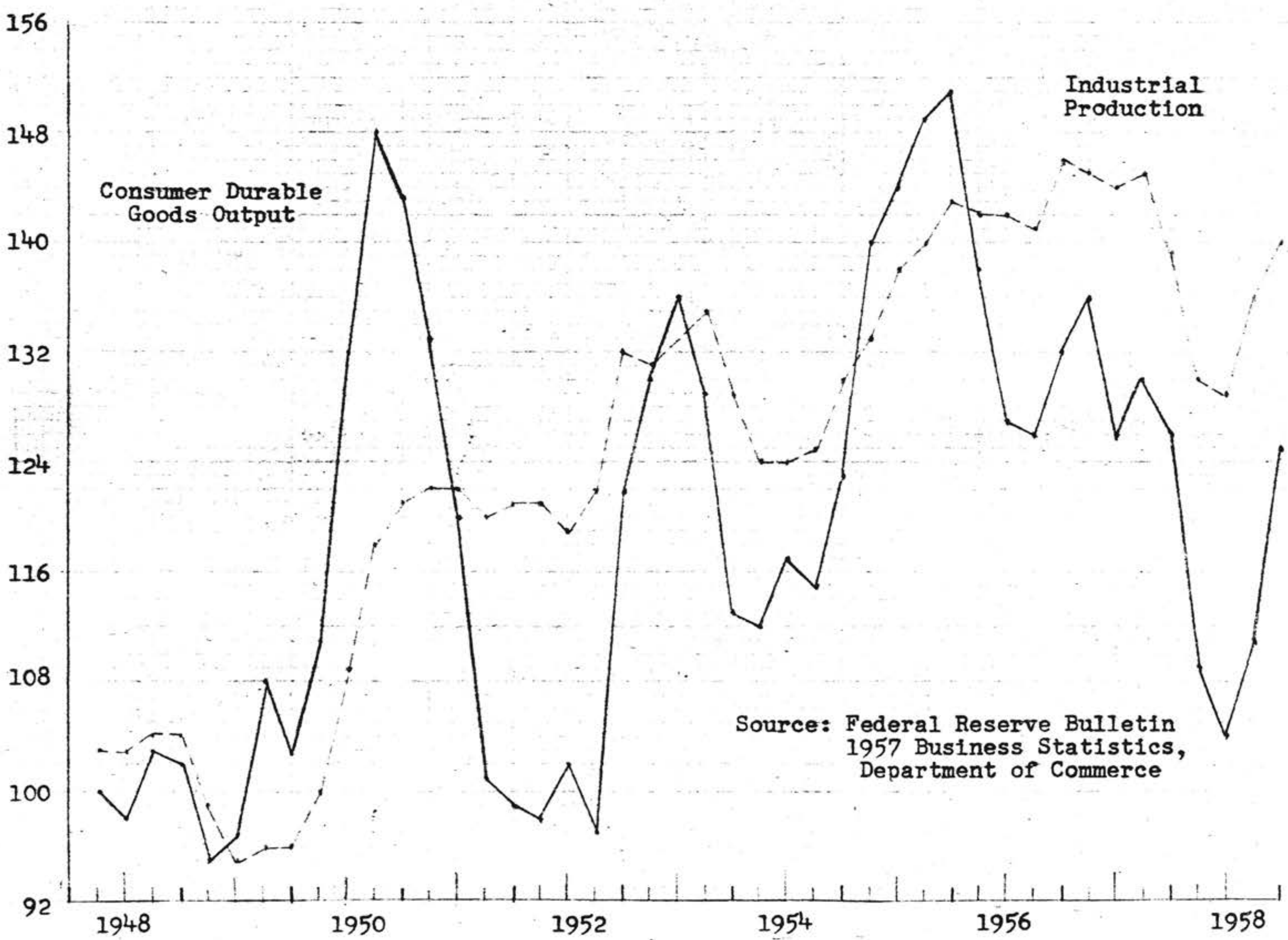


Figure 1

plant and equipment expenditures to Gross National Product in the postwar period--as shown in Figure 2--points up the instability of the former. Figure 2 also shows that fluctuations in consumer durable outlays are even greater than in plant and equipment investment.

Figures 1 and 2 reveal that consumer durable production and outlays may well be the most fluctuating series in the economy. Thus, consumer durable goods output could have much influence on business cycles. This will depend, of course, on whether the behavior of consumer durable output conforms to that of business cycles.

Conformity of Fluctuations in Consumer Durable Output to Cyclical Fluctuations in General Business

To provide perspective in this discussion, first we will take up the findings of the National Bureau of Economic Research with regard to the conformity of consumer durable output to business cycles during the interwar period--1919 to 1938. It was found that this economic sector conformed perfectly to business cycles during this period, scoring a +100. This means that production of consumer durables fell in every contraction and rose in every expansion for the period studied.[12]

Figure 3 depicts the behavior of consumer durable output during the postwar period. The turning point dates in general business activity marked off by the vertical lines were taken from National Bureau of Economic Research estimates with the exception of the lower turning

---

[12] W. C. Mitchell, What Happens During Business Cycles (National Bureau of Economic Research, Inc.; Cambridge, 1951), pp. 15, 16, and 162.

FLUCTUATIONS IN SPENDING RELATIVE TO TREND
SELECTED SERIES
1946-59

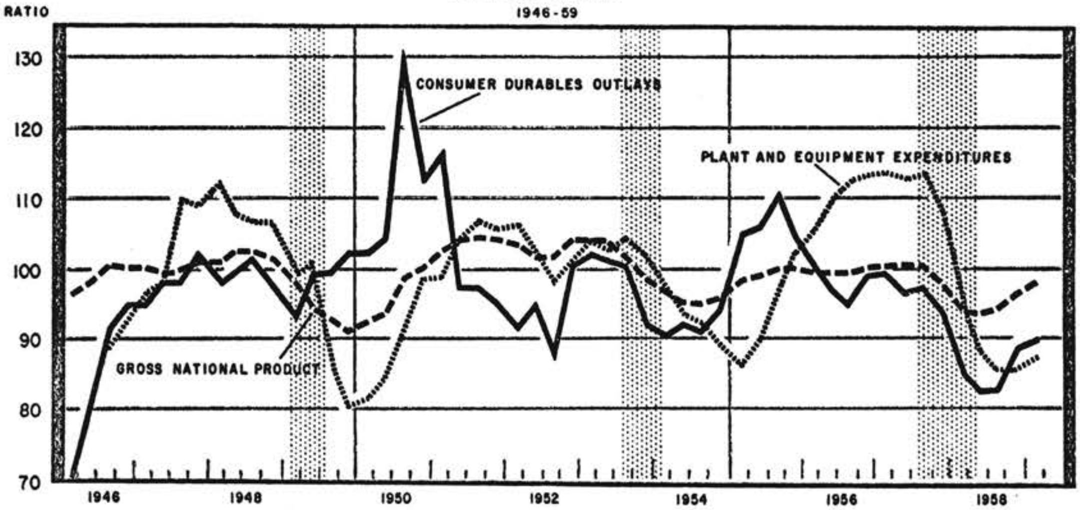


Figure 2

Source:

United States Department of Commerce
Data adjusted by Federal Reserve Bank of San Francisco
for postwar trend

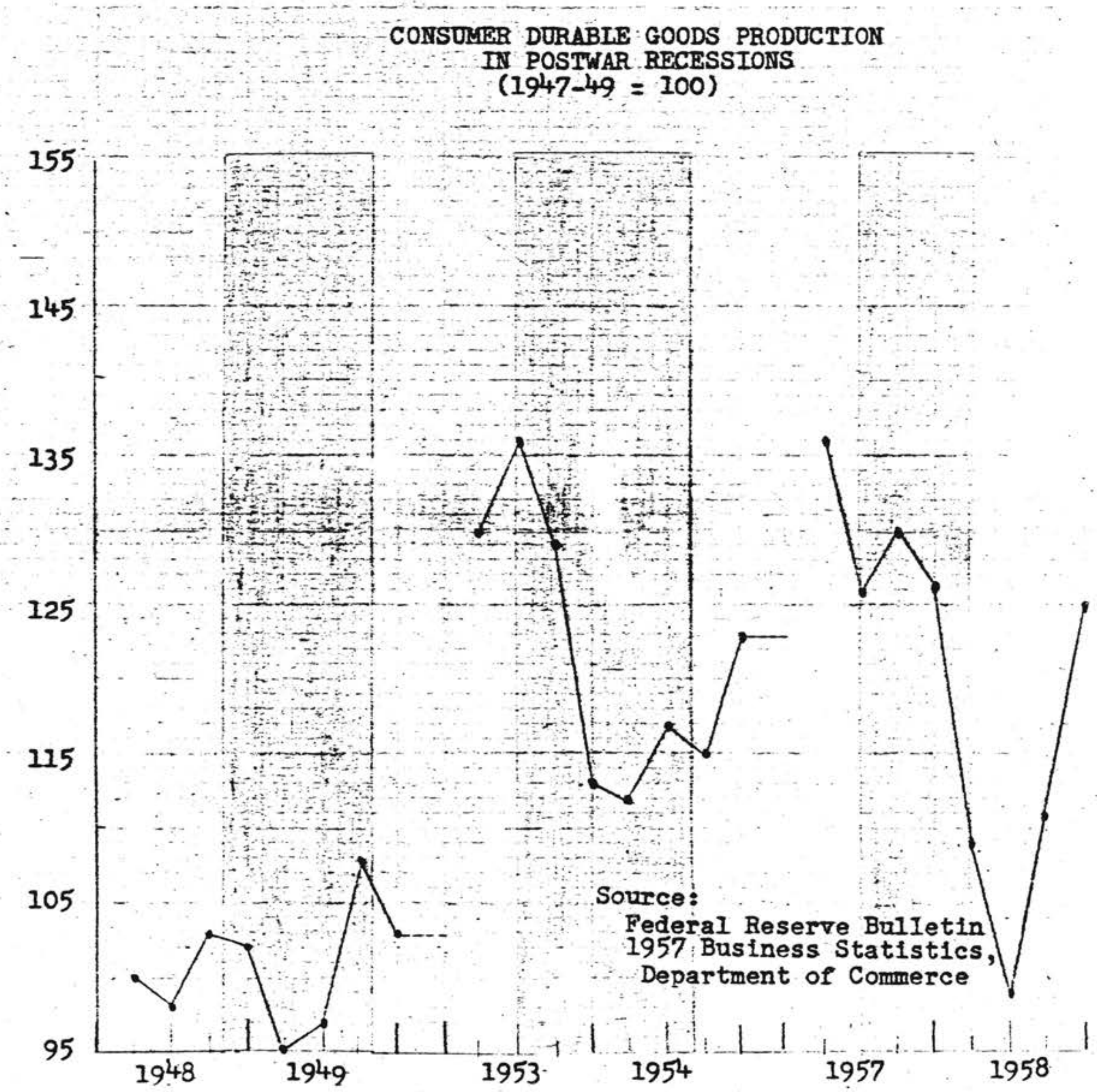
point for the 1957-58 recession.[13] The shaded areas represent periods of contraction and the white areas represent expansionary periods. From this Figure it can easily be seen that consumer durable output rose in every expansion and fell in every recession with the exception of the 1948-49 period. Output of such goods in this period--which will be discussed later--is unusual due to the pent-up demand for automobiles resulting from World War II which had not yet been satisfied. It can be said, then, that discounting the first postwar recession, consumer durable production has increased in every expansion and declined in every contraction in the postwar period.

It should now be apparent from the discussion in this section that consumer durable goods industries help to generate cyclical activity or business cycles and thus contribute to economic instability.

Now that it has been shown that there are fluctuations in consumer durable industries which enhance economic instability, we must know more about the nature and causes of these fluctuations. We will approach this by studying in detail the behavior of consumer durable goods output during the postwar recessions. This should yield much helpful information, the most important being the ultimate causes of recurrent declines in consumer durable goods production which by conforming to declines in general business activity help generate economic instability.

---

[13] NBER has not yet released a date for the lower turning point of the 1957-58 recession. Various authorities, however, designate March, 1958, as this date.



CONSUMER DURABLE GOODS PRODUCTION
IN POSTWAR RECESSIONS
(1947-49 = 100)
155
145
135
125
115
105
95
1948
1949
1953
1954
1957
1958
Source:
Federal Reserve Bulletin
1957 Business Statistics,
Department of Commerce

Figure 3

Behavior of Consumer Durable Output in the Postwar Recessions[14]

This section has three main subsections. We will consider the behavior of consumer durable goods first in the 1948-49 recession, then in the 1953-54 decline and finally in the 1957-58 recession. The dates of the postwar recessions--as will be recalled from Figure 3--are as follows: November, 1948, to October, 1949; July, 1953, to August, 1954; and July, 1957, to March, 1958.

For each recession we will consider the following aspects of consumer durable goods activity: (1) nature of the decline in consumer durable goods production, (2) decreased consumer durable production as a response to declining demand for these goods and (3) factors responsible for decreased demand for consumer durables and thus for their decreased production.

In number one we will be concerned with picking out the declining consumer durable goods peculiar to each recession. For example, in the 1948-49 period, output of household equipment and furniture declined while production of automobiles increased. In addition we will examine the timing of the downturn and upturn in the consumer durable industries to determine if they lead or lag behind changes in general business.

Number two involves a look at the instability in consumer durable output as a response to variations in the demand for them.

---

[14]Discussion of the behavior of consumer durable goods series other than those shown in Figures 4 and 5 is based on monthly data. However, monthly data are not available for the demand series in Figures 4 and 5. Therefore, data used to discuss the series shown in Figures 4 and 5 will be read directly off such figures.

Since in number one we discuss the nature of the decline in consumer durable output in each recession, and look at such declines in output as a response to the decreased demand for consumer durable goods in number two, in the third section we will try to arrive at the causes for this decreased demand--and thus at some of the ultimate causes of instability in the output of consumer durable goods industries. In addition we will show that the decreased demand for these goods in recessionary periods accounts for a substantial portion of the total decrease in Gross National Product during such periods.

Consumer Durable Production in the 1948-49 Recession

Nature of the decline in output. Total consumer durable output turned down about a month before the beginning of the recession, thereby showing a lead at the upper turning point. This series continued to decline through the first quarter of 1949. From this point it increased throughout the remainder of the recession. Output for the month ending the downturn was ten per cent higher than that for the month beginning the decline.

Before discussing the consumer durable industries in which production declined during this period, we will digress briefly to point out why total consumer durable production increased over the 1948-49 recession. This increase is largely accounted for by the tremendous increase in automobile production. The restrictions on automobile production during the war created a huge pent-up demand for this item which had not been satisfied by the 1948-49 period. Thus automobile output stood almost 40 per cent higher at the end of the recession than at its beginning. Rising output of television sets also contributed significantly to the growth in consumer durable output during the 1948-49 period. Being an innovation of this period, their production increased around 100 per cent from the beginning to the end of the recession.

Although total output of durables increased over the 1948-49 period, by looking behind the total figures it can be seen that output declined in several consumer durable industries: Household furniture, floor coverings, ranges, refrigeration appliances, radio sets, auto parts and tires and miscellaneous home and personal goods. Of these goods, ranges and refrigeration appliances show the most severe and protracted decline.[15]

Declining Consumer Durable Goods Production as a Response to Declining Consumer Durable Goods Demand. At the beginning of a given period of time, producers of consumer durable goods have tentative plans to produce some definite amount of goods during the interval. As they cannot correctly anticipate consumer demand for their products, the amount of their output has to be adjusted during the given time period to fit more closely the demand for it. The direction such adjustments take depends in large part on the behavior of inventory investment in consumer durable goods. In turn, increases and decreases in consumer durable inventories by distributors are based on the distributors' convictions about final or consumer demand for such goods. So it can be said that consumer durable output is a response to both final and investment demand, the stimulus of the former being transmitted through the latter and being magnified in this process by way of the acceleration principle. For example,

---

[15] Federal Reserve Bulletin, XL (1954), 450-451.

during any recession the decline in purchases of consumer durable goods from producers will be greater than the decline in sales to consumers of such goods. This occurs because distributors reduce purchases in the amount of the decrease (or expected decrease) in final sales plus the amount of inventories usually carried for this amount of sales.[16] From this it would seem that although declining inventory demand certainly plays an important role with respect to decreased consumer durable production, it is declining final demand which is at the source of such declines in consumer durable goods production.

Final demand for consumer durables is very sensitive to economic stresses present in the economy around the top of the expansionary period. This is true because such goods are purchased out of discretionary income and because they may be thought of as semi-luxury goods. As a result, final demand for durable goods is among the first economic series to decline as a response to various stresses existing at the top of an expansion.

Now let us look at the relationship between declining production of consumer durable goods and declining demand for the same during the 1949 recession. To facilitate this, we will separate consumer durable goods into two categories: (1) Automobiles and Auto Parts and (2) Household Equipment and Furniture (approximately the same as major household goods and miscellaneous home and personal goods). By making this distinction we are able to plot in Figures 4 and 5 the equivalent of the demand and supply for each of these categories during each of the postwar recessions. Since such categories have been found to behave

---

[16]R. A. Gordon, Business Fluctuations (New York, 1952), pp. 111-112.

differently during recession periods, this distinction is very helpful.

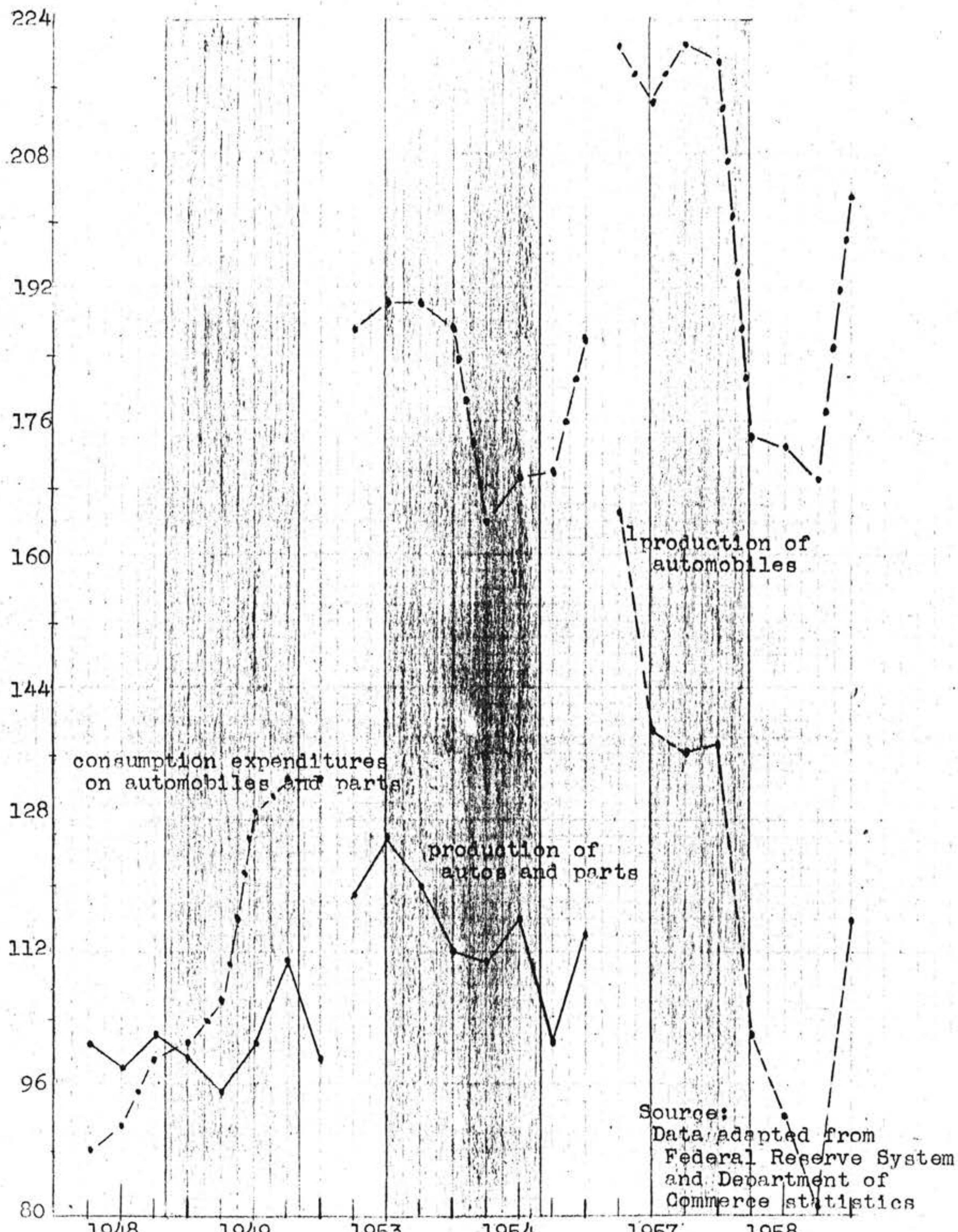
As our purpose is to discover the reasons for the decline in consumer durable goods production during recessions, we will discuss with reference to the 1948-49 recession only the demand and supply for household equipment and furniture since demand and supply for automobiles and auto parts increased during this period. Household equipment supply and demand is shown on Figure 5.

The declines in spending on and production of household furniture and equipment preceded the downturn in the economy as a whole by about one month. As spending dropped sharply downward, production declined at a much slower rate into the first two months of the recession, then dropped at a much faster rate and to a much greater depth. Both series turned upward before the end of the recession. Comparing the beginning of the recession to its end, consumer demand for furniture and household equipment was down only two per cent while production was down nine per cent for such goods.

It would appear that production of furniture and household equipment started softening gradually as a first response to decreased final demand for the same; then as distributors became more pessimistic and the rate of decrease in inventory investment picked up, production took a much steeper dive--while final demand was decreasing at about the same rate--and continued to decrease even after final demand had turned up.

In the theory advanced as to why decreasing consumer durable production is a response to decreasing demand for the same, both final and investment demand played significant roles. However, in trying to arrive at the ultimate determinants of the decline in consumer durable production,

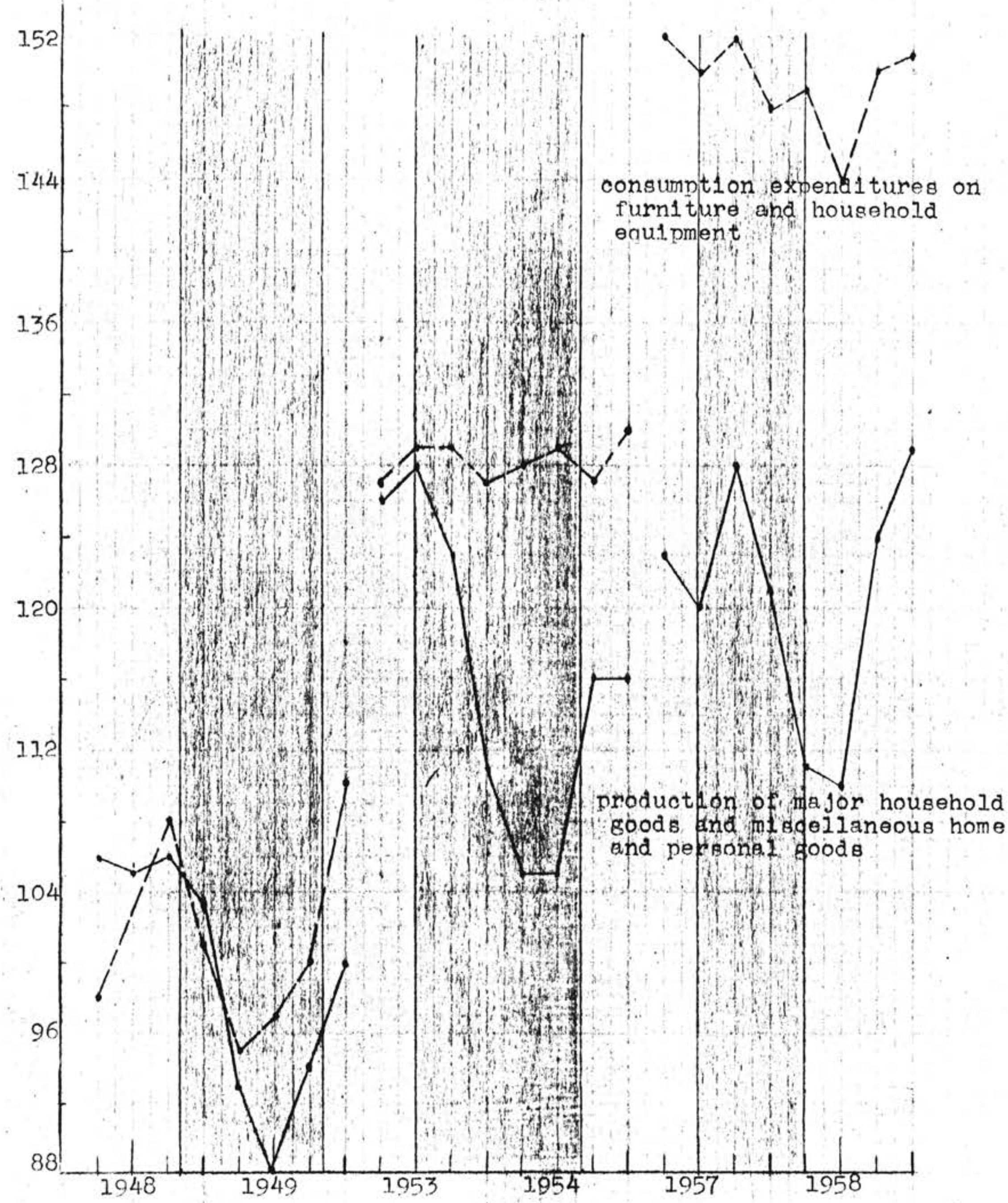
DEMAND AND SUPPLY FOR AUTOMOBILES AND PARTS
IN POSTWAR RECESSIONS
1947-49 = 100



1Parts data for this period has been suspended pending revision.

Figure 4

DEMAND AND SUPPLY FOR HOUSEHOLD EQUIPMENT AND FURNITURE IN POSTWAR RECESSIONS
1947-49 = 100



Source: data adapted from Federal Reserve System and Department of Commerce statistics.

Figure 5

only the causal factors behind the decrease in final demand will be considered. Reasons for this are that the variables underlying these two types of demand are so different that both cannot be taken up in one study, and inventory liquidations and buildups may be looked at as a response to the highly dynamic character of consumer expenditures for durable items.

Variables influencing consumer durable expenditures. Disposable income, the most important factor affecting spending, declined from $194 to $189.3 billion during the 1948-49 period--a total decline of $4.7 billion. Discretionary income fell by an even larger amount--around $9 billion.[17]

Another important reason for the decline in spending on major household goods and other small appliances was the large amount of such purchases following World War II. This was a result of the deferred demand for these goods and increased liquid asset holdings created by the War. By the 1948-49 period this deferred demand had been largely satisfied and there was a decrease in liquid assets on hand as compared with the immediate postwar period.

Following the War, prices of durables were at a high level. During the three months prior to the recession, they were still rising. During this pre-recession period, prices of household furnishings were increasing at the rate of one per cent a month on the wholesale level. On the retail level they were also increasing. Over the period of the recession, household furnishings prices fell 2.6 per cent and 5.8 per cent on the

[17] Conference Board Business Records, XV (1958), 197.

wholesale and retail level, respectively. This indicates that a price adjustment may have been in order and that this was a factor in the decreased spending on durables.[18]

In addition to the squeeze on purchasing power caused by the decline in disposable and discretionary income and decreased liquid asset holdings, purchasing power was further reduced by a contraction in installment credit over the 1948-49 period. The revival of consumer credit controls in September, 1948, is partly responsible for the behavior of this series.

> Prior to this month bank loans to consumers had been expanding at the rate of approximately 80 million dollars a month. After September, however, this type of bank lending abruptly ceased. Simultaneously, sales of consumer durables, which had been setting records during the first three-quarters of the year, suddenly began lagging behind at an alarming rate. There can be little doubt that the abrupt change in the volume of consumer loans by banks and the sudden lagging tendency of sales of consumer durables reflected to a large extent the reimposition of consumer credit controls by the Federal Reserve System.[19]

A look at total installment credit extended helps explain the decreased spending on some consumer durables while spending on automobiles increased. Total new credit extended for buying cars moved upward late in 1948 and continued rising practically throughout 1949. Other consumer-goods credit declined in the spring of 1949.[20] Although people were willing and able to go in debt to finance automobiles, they were

---

[18]"Price Behavior in Nine Recessions," Conference Board Business Records, XV (1958), 178-183.

[19]D. Hamberg, Business Cycles (New York, 1951), pp. 496-497.

[20]Richard Snyder, Measuring Business Changes (New York, 1955), p. 277.

not willing or were unable because of the restrictions mentioned above to go into debt to finance purchases of major household goods and other appliances.

Before leaving the discussion of the forces causing the decline in spending for (and thus production of) consumer durable goods, we would like to briefly recall these forces here. They consisted of factors causing a direct reduction in purchasing power--decreased disposable and discretionary income, decreased liquid asset holdings and contracted installment credit. Other forces were the increased stock of consumer durable goods resulting from early postwar satisfaction of deferred demand and the high prices of consumer durable goods in the pre-recession period.

Our objective in this section was to find why output of consumer durable goods declined during the 1948-49 recession, thus enhancing the total decline in economic activity during this period. Along this line, the specific consumer durable industries in which production declined over the 1948-49 period were pointed out. These declines were considered a response to decreased demand for goods produced by these industries. Finally the causal factors behind such a decrease in demand were examined in an attempt to discover the ultimate forces causing consumer durable output to decrease during this recession.

Consumer Durable Goods Production in the 1953-54 Recession

Nature of the decline in output. Total consumer durable output turned downward around the same time as did general business activity, but started to recover more than a quarter before the end of the recession. The decline in these goods during the 1953-54 period was 17 per cent.

Stated in terms of their 1947-49 average, consumer durable production declined from 137 per cent in the month marking the beginning of the recession to 114 per cent in the month ending the decline. This percentage decline takes on increased significance when one considers that we are speaking of goods on which Americans are currently spending about $40 billion per annum.

Nearly all consumer durable industries reduced production in this period. Automobile production dropped 28 per cent over the contraction. This series fell off sharply through the last half of 1953 and turned upward at the beginning of 1954. It had not regained its pre-recession level by the end of the downturn.

Major household goods declined 8 per cent. Almost all products in this classification declined. One product, television, however, appeared to have been almost unaffected by the recession. Being introduced in the early postwar period, television was still a relatively new product; therefore, the strength of consumer demand for it was great enough not to be weakened by the recession. Also the production of automobile parts and tires did not decline over the 1953-54 period.

The consumer durable goods showing the most severe declines--with the exception of automobiles--were radios, ranges, and miscellaneous home and personal goods. Smaller but significant declines were experienced by household furniture, refrigeration appliances, and laundry appliances. (Data for floor coverings are not available.)[21]

---

[21] Federal Reserve Bulletin, XL (1954), 450-451 and XLI (1955), 318.

Declining consumer durable goods production as a response to declining consumer durable goods demand. Figures 4 and 5 show the behavior of consumer durable goods spending and production during the 1953-54 period. When purchases of automobiles and parts leveled off in the third quarter of 1953, production of these goods decreased sharply. By the end of the recession, production had dropped 16 per cent whereas spending on automobiles and parts had only declined 11 per cent.

The decline in expenditures on furniture and household equipment was very slight, being less than 1 per cent. The decrease in production of such goods was much more significant and appears to have been initiated by the flattening out of consumer spending with the result that there was no further need for expansion of inventory investment. Production of furniture and household equipment fell 13 per cent over the contraction.

The decline in production of automobiles and parts and household furnishings and equipment was greater by 5 and 12 per cent respectively than the decrease in consumer purchases of these commodities. Production responded in this manner because of the decreased final demand and declining inventory investment.

Variables influencing consumer durable goods spending. A look at disposable income tells us that it did not exert a deflationary influence on consumer durable spending. Standing at an annual rate of $251.7 billion in the quarter beginning the downturn, it continued to rise throughout the recessionary period--partially as a result of increased transfer payments. In the quarter before the upturn, it had reached an annual rate of $252.8 billion. Thus the behavior of disposable income gives no clue as to the cause of the fall in spending.

However, the variation in discretionary income over this period furnishes a possible reason for the decreased consumer spending on durable items. This measure of income fell from an annual rate of \$90.6 billion in the third quarter of 1953 to \$86.5 billion in the third quarter of 1954--a decline of \$4.1 billion. This means that after consumers paid for fixed commitments and made essential expenditures, they had a smaller amount left with which to purchase consumer durable goods.[22]

Since it is unusual for disposable income and discretionary income to vary in opposite directions--as can be seen by observing that they moved together in both the 1948-49 recession and the recession of 1957-58--some explanation is in order. When disposable income increased by \$1.1 billion, discretionary income would have risen by a like amount had "income not received in dollars," "payments on fixed commitments," and "expenditures for necessities" remained constant. However, the net change in these factors was an increase of \$5.2 billion.[23] Or in other words, consumers overspent the \$1.1 billion increase in disposable income by \$4.1 billion on increased purchases of necessities--such as food, clothing and medical care--and fixed commitments--such as installment and mortgage debt repayment. The \$5.2 billion increase in these factors could have been a result of living costs rising faster than income.

Installment credit behavior affords another possible explanation for the decline in spending on durables. Total installment credit extended declined through the second half of 1953 and into early 1954 while

---

[22] Conference Board Business Records, XVI (1959), 222.

[23] Y_d = disposable income; D_y = discretionary income; X = A + B + C, as described on page 7. Numbers are stated in billions of dollars. $D_y + \Delta D_y = Y_d + \Delta Y_d - (X + \Delta X)$; $90.6 + (-4.1) = 251.7 + 1.1 - (161.1 + \Delta X)$; $\Delta X = 5.2$.

repayments increased over the same period. The result was a fall in outstanding installment credit. When the total amount of consumers' credit outstanding finally begins to show a decreasing rate of increase or an absolute decrease, a downward pressure is exerted on total consumption. A possible explanation for the decline in total installment credit extended lies in the rise of consumer credit outstanding from $15 billion in 1950 to about $23 billion in 1953. Consumers may have decided it was time to repay the large amount of previously contracted debt rather than increase new obligations.[24]

Since most of the decrease in spending is explained by decreased automobile purchases, some of the factors affecting these purchases will be examined. Stocks of used cars increased substantially during 1953 resulting in decreased used-car prices. Further, an estimated 25 per cent increase in the number of cars in use had occurred since mid-1950. There was also a reduction in the average age of automobiles on the road. List prices of new automobiles had changed little since 1952 and so were not a factor in the decline. In fact, during the latter part of 1953 there were larger discounts and more frequent special sales than before midyear.[25]

To summarize what we have said about the forces causing the decline in consumer spending on durable goods in the 1953-54 recession, we will make the following comments. Decreased discretionary income and installment credit extended and outstanding were the forces reducing consumer

---

[24] Federal Reserve Bulletin, XLV (1959), 56.

[25] Federal Reserve Bulletin, XL (1954), 435.

purchasing power and thus expenditures during the 1953-54 recession. Decreased automobile purchases accounted for most of this decrease in consumer spending; responsible forces here--in addition to the factors reducing purchasing power--were an increased stock of automobiles and a reduction in the average age of automobiles making up this stock. Decreased used-car prices may also have been a factor.

In addition to discussing the causal forces behind the decline in final demand during the 1953-54 recession, we want to show the contribution of such decline to the recession. Consumer purchases of durable goods declined $1.3 billion over the 1953-54 period while Gross National Product fell off by $5.1 billion (comparing third quarters of 1953 and 1954). This means that the decline in consumer durable purchases accounted for approximately one-fourth of the decrease in Gross National Product during the recession.[26] These statistics strikingly illustrate the significance of consumer purchases of durable goods on the stability of the economy.

Consumer Durable Goods Production in the 1957-58 Recession

Nature of the decline in output. Over the period of the 1957-58 recession, production of total consumer durables declined 19 per cent. This decline began about 3 months before the fall off in general business and continued downward for about the same length of time after activity in general business had picked up.

---

[26]U. S. Department of Commerce, U. S. Income and Output, 1958 Supplement to the Survey of Current Business, pp. 120-121.

As in the preceding recession, decreased production was pervasive in the consumer durable industries with automobile output declining 31 per cent and major household goods 20 per cent. All goods of the latter type showed a negative movement over the recession. However, the decrease in production of radio and television sets showed the greatest decline with decreased output of refrigeration and laundry appliances also contributing a large amount to the decline in consumer durable output over this period. Furniture and floor coverings, while declining a significant amount, were not so important a deflationary force as the other items just mentioned.

Ranges and heating apparatus showed still a smaller response to the recession. (Data on automobile parts and tires were not available.)[27]

<u>Declining consumer durable goods production as a response to declining consumer durable goods demand</u>. Both the demand for automobiles and auto parts and tires and the supply of automobiles (data on output of auto parts and tires are not available for this period) took a deep plunge in the 1957-58 period. These two series were showing a downward movement prior to the recession. With the beginning of the recession, demand picked up resulting in a leveling off of the decline in production. Both then plunged downward throughout the remainder of the recession. While demand declined 19 per cent, however, the decrease in production or supply was almost 10 per cent greater, being a total of 28 per cent.

---

[27]<u>Federal Reserve Bulletin</u>, XLIV (1958), 482 and XLV (1959), 310.

Demand for furniture and household equipment showed a fluctuating movement over the recession resulting in a decline of less than 1 per cent over this period. But over this same period production of these goods declined 8 per cent.

The behavior of the demand and supply for consumer durable goods in the 1957-58 period is surprisingly similar to their behavior in the 1953-54 period. In each period production dropped off by a greater amount than sales or purchases. Consumer durable production responded in this manner to the decline in final demand because of the behavior of investment demand for such goods. Distributors reduced purchases from producers by an amount equal to their expected decline in sales plus the amount of inventory carried for this amount of sales. Thus, depending upon distributors' ratio of inventory to sales and upon their expectations, the fall in investment demand will be a good deal larger than the decline in final demand.

It is possible that as a response to a large fall in final demand, distributors may feel they have a sufficient amount of goods on hand to take care of final demand. In this situation, purchases are reduced to zero and inventory disinvestment takes place.

Variables influencing consumer durable goods spending. Probably the most potent factor causing consumers to reduce their outlay for durable items was the decline in disposable income by $2.6 billion over the recession. Discretionary income fell by an even greater amount--$3.6 billion--leaving consumers a decreased fund from which expenditures could be devoted to durables or saving at option.[28]

---

[28] Conference Board Business Records, XVI (1959), 222.

Credit curbs also depressed consumer durable sales, particularly those of automobiles. But this curbing was done by the consumers rather than the lenders. Credit was available but consumers would not assume new obligations at the rates they had in recent years. Both extensions of automobile paper and the total of this paper outstanding declined considerably over the 1957-58 period. Other consumer goods paper extended and outstanding decreased only slightly.[29]

The bear market in securities resulted in speculative losses for many consumers, both in real and paper terms. Consumers ended up feeling poorer and in consequence decreased their demand for consumer durable goods. According to the Securities and Exchange Commission series, common stock prices declined 11 per cent during the contraction.[30]

The complexion of the demand for consumer durables over the recession was also partially a result of the size of stocks of such goods in the hands of consumers. Throughout the postwar period, the number of cars on the road has been rapidly increasing. In the decade, consumer stocks of automobiles had almost doubled; and there were now about 1.1 passenger cars per household, compared with about .8 ten years before.[31] The stocks of other consumer durables--such as refrigerator and laundry appliances, etc.--had increased to such an extent in the postwar period that demand for these goods changed from demand predominantly for new additions to

---

[29]"Exploring the 1958 Automobile Market," Conference Board Business Records, XV (1958), 304-305.

[30]Federal Reserve Bulletin, XL (1954), 488.

[31]"Exploring the 1958 Automobile Market," Conference Board Business Records, XV (1958), 304.

stock to demand for replacement of existing consumer stocks. It is interesting to note in this respect that in 1954 the stock of ranges was much lower than that for other durables, and that it was this item which showed no decline in the 1957-58 recession. The main demand for electric ranges was still "new" rather than replacement demand. Consumers can make an old range serve a while longer and thus postpone the purchase of a new one. That is, purchases resulting from replacement demand are postponable. Therefore, when primarily replacement demand--as opposed to new demand--exists for an item, purchases of this item are likely to move with the business cycle.[32]

As in the 1953-54 recession, most of the decrease in spending resulted because of decreased automobile purchases. Some have voiced the opinion that this decline in demand for automobiles was evidence of a wholesale rejection of current styles. In this respect it should be pointed out that automobile sales did not drop until the recession was well on its way. Some indications of the effect of the recession may be seen by comparing the drop in automobile registrations with the rise in unemployment in various states. If the slump in sales was largely the result of a change in tastes away from current styles, the decline would have taken place more or less in an equal degree throughout the economy,

---

[32] "A Long Look at the Postwar Boom," Conference Board Business Records, XI (1954), 437-440, footnotes equations used to calculate the level of stocks of several consumer durables. For example, the equation for calculating the level of stocks of ranges, which is based on years 1927-1940, is shown in a footnote on page 440 as follows: $\text{Log } Y = 0.8642 + 0.5125 X_1 + 0.00552 X_2$. Where Y = number of electric ranges in use (millions), X_1 = time in logarithms (1927 = 1, 1928 = 2, etc.); and X_2 = real disposable income (billions of 1947 dollars). k = 0.98.

and would have occurred gradually. Records reveal, however, that the states with the greatest increases in the number of jobless have tended to record the greatest declines in the sales of automobiles, and that the decrease in sales occurred very abruptly. So the sharp curtailment in auto purchases, it would seem, was a result of income and employment trends rather than style factors peculiar to the industry.[33]

It seems possible that the market structure in consumer durables is partially responsible for the 1957-58 instability in consumer durable output--even though no strong evidence of this existed with respect to the two previous recessions. The further away from pure competition this sector departs, the easier it is for businessmen to maintain prices by varying output over a wide range in response to cyclical shifts in demand. Let us look at the market response to the declining demand for consumer durable goods during the 1957-58 contraction. While consumers decreased their spending for these goods by 10 per cent, prices of these goods increased almost 2 per cent at both the retail and wholesale level and production was cut by 19 per cent.[34] Considering specifically the automobile industry, manufacturers raised prices by an average of 3 per cent in the face of weakening demand and experienced a 30 per cent decrease in automobile production. Such market responses are reflected in a statement made by the leader of a major industry during the 1957-58

---

[33] Conference Board Business Records, XV (1958), 304-305.

[34] "Price Behavior in Nine Recessions," Conference Board Business Records, XV (1958), 178-183.

recession. This person commented that companies in his industry would have to raise prices because the recession was reducing profits at the time.[35]

In the downturn of 1957-58, both disposable and discretionary income declined. At the same time both the amount of installment credit extended and outstanding were decreased. Added to this was a large dip in stock market prices. Also, since the war, there has been evidence that stocks of all durable assets in the hands of consumers have grown by large amounts, decreasing the necessity for purchasing new durable items. Finally, market imperfections have been clearly evident.

Let us now look at the significance of this decrease in consumer durable demand. As in the previous recession, the decline in expenditures for durable goods by consumers was very substantial relative to the decline in total spending during the 1957-58 period. During this time, consumers decreased their spending on durables from $40.4 billion to $36.3 billion--a total of $4.1 billion. This figure accounts for over one-fifth of the total decline in Gross National Product over the same period.

Recapitulation

In this chapter we have been concerned with the nature and causes of instability in consumer durable goods industries in the postwar period.

---

[35] M. W. Lee, Economic Fluctuations: Growth and Stability (2nd Ed., Homewood, Illinois; 1959), p. 544.

Our first step was to point out the fluctuations in consumer durable goods output since World War II and show that such fluctuations conformed to those in general business. We then examined the behavior of consumer durable goods output during the postwar recessions. From such examination we especially hoped to learn the reasons why production of consumer durable goods industries dropped off during these recessions, thereby joining the ranks of industries exhibiting economic instability.

From our study of consumer durable output during the postwar recessions, we are able to make the following statements. In each of these recessions the downturn in consumer durable output led the decline in general business, thus helping to initiate the downturn in the economy. Such output did not consistently lead or lag behind the lower turning point in these recessions. No specific group of consumer durables showed production declines in each recession while another specific group remained unaffected. Instead, the declines in consumer durable industries during the recessions were quite pervasive, affecting almost all consumer durable items. However, the declines in automobile production were significantly larger than the declines in household furnishings and equipment. Also it might be brought out that the production of television sets--these items being a new product during these recessions--did not respond to the 1948-49 and 1953-54 declines. Had only a few specific consumer durable goods shown declines over the postwar recessions, we would be concerned with only the reasons behind the decline in output of these items rather than the decline in output of all consumer durable goods industries.

The declines in consumer durable goods output during the recessions were considered to be responses to declines (or expected declines) in final and inventory demand for such items. The stimulus of the decline in final demand is transmitted through inventory demand and magnified in this process by way of the acceleration principle. Even though inventory demand plays an important part in the decline in consumer durable goods production, it is final demand which is at the source of such decline; <u>thus we discussed the causal factors behind declines in this type of demand to arrive at some of the ultimate causes behind the declines in consumer durable goods output</u>. The causal factors behind the declines in final demand during each of the postwar recessions will be briefly recalled in the following paragraphs. We also pointed out that the decrease in final demand during the postwar recessions accounted for a surprising portion of the decline in total demand during such periods--evidencing the importance of the impact of consumer durable industries on economic stability.

In the 1948-49 recession, decreases in disposable and discretionary income appeared to be the most important factors in reduced spending for durables. Installment credit contraction was another factor reducing purchasing power. In addition, liquid asset holdings were lower than immediately following the war; and it may have been that price adjustments were necessary.

While disposable income was not a causal factor in the decreased purchases of durables in the 1953-54 period, discretionary income again dropped substantially. Installment credit again tightened up. Also, increased stocks of durable goods appeared to be a factor in the large fall in sales.

In the downturn of 1957-58, again both disposable and discretionary income fell off. At the same time both the amounts of installment credit extended and outstanding were decreased. Added to this was a large dip in stock market prices. Also after the war, evidence existed that stocks of several durable assets in the hands of consumers grew by large amounts, decreasing the necessity of new purchases of such items. Finally, market imperfections were clearly evident. Instead of price reductions occurring in response to the decrease in consumer spending, prices were raised and production cut.

From the above description of the postwar recessions, we can gain some idea of the more volatile factors responsible for reductions in consumption expenditures for durable goods. We will designate these factors as follows: disposable and discretionary income, installment credit, liquid assets, speculative gains and losses, durable assets, and market imperfections.

CHAPTER IV

ECONOMIC POLICY AND CONSUMER DURABLE GOODS INDUSTRIES

Up to this point we have been concerned with establishing the importance of consumer durable goods industries as a fluctuating part of the economy. It was found that these industries definitely contribute to business cycles and are of such magnitude that their cyclical variations are quite significant in terms of income, output and employment. In addition, these industries are increasing yearly in importance in our present-day, high-income economy.

How well is the government policy tool kit equipped to combat instability in this sector of the economy? Are the variables responsible for fluctuations in these industries insensitive to the currently existing instruments of economic policy? To examine these issues, we will study the relationship between consumer durable purchases and each of the variables causing fluctuations in such purchases. By discussing this relationship we can better understand the usefulness of existing measures of economic policy in combatting the destabilizing effects of each variable. We shall try to show whether or not these variables can be effectively manipulated by utilizing the existing tools of general monetary and fiscal policy and certain selective policy devices.

Clearing Controversial Grounds

The difference between general and selective measures may be stated as follows. The former when executed affects the climate of the whole economy while the latter affects only a specific economic component--such as the consumer durable goods industries. In advocating the application of selective controls to consumer durable goods industries, we enter controversial grounds. Selective controls, it is argued, by stabilizing an economic sector, deter economic progress and limit economic freedom. It is said that fluctuations are desirable in individual economic sectors (such as the consumer durable goods industries) to allow for increased output of more desirable products and decreased production of less desirable ones and to reflect changes in consumer tastes and preferences.

To make our position clear, we would like to assert that the economic changes resulting from movements toward technological progress and/or changes in tastes and preferences are not the type of movements which we desire to mitigate or offset. Therefore, selective controls would not be directed at variations which are desirable for these reasons. A comparison of economic changes resulting from technological progress and varying tastes and preferences with the fluctuations with which we are concerned will make this point clear.

We are concerned only with those short-run changes in production occurring concurrently and in the same direction in all (or almost all) industries supplying consumer durable goods which tend to reverse themselves at unpredictable intervals. Such movements are exemplified by the decreases in nearly all lines of consumer durable output and contribute substantially to deflationary pressures.

In contrast, technological progress results in structural changes in individual consumer durable goods industries--such as decreased production of radios and increased production of television sets. Also, these changes do not consist of movements in the same direction in all industries as decreased production of a less desirable item takes place.

Variations in consumer durable industries as a result of the expression of consumer tastes and preferences (economic freedom) also contrast to the fluctuations with which we are concerned. Consumers' tastes and preferences change gradually. The devotion of more dollars to education at the expense of consumer durable items might be an example.

We do not believe that the pervasive, short-run, recurrent variations in the consumer durable industries, which we wish to mitigate or offset with selective and general policy measures, result from economic advances or the expression of economic freedom. We feel rather that these variations are a response to a variety of destabilizing forces inherent in the economy. Also, we believe that the stabilization of such fluctuations would be an aid to the economy rather than a deterent to the necessary resource reallocation that goes with technological progress and the expression of economic freedom. Such wastes as those resulting from cyclical movements in consumer durable production are certainly not consistent with an economic allocation of resources. Rather these wastes are the cost of resources that are over-committed in periods of boom and those not utilized during recession periods. And if selective regulation can reduce these wastes, we should not hesitate to include it in our measures to promote economic stability.

The preceding discussion was necessary to make clear our position with respect to selective controls since the use of such controls will be advocated later on in this chapter.

Destabilizing Effects of Certain Variables on Consumer Durable Industries--and Availability of Policy Measures to Combat Such Effects

As previously stated, we have to understand the relationship between "income, installment credit, liquid assets, speculative gains and losses, durable assets and market imperfections" and consumer durable purchases before we can determine if policy measures are available to combat the destabilizing effects of these variables on purchases of such items. Therefore, we will examine each variable first with respect to the relationship between it and consumer durable purchases, and second with respect to policy measures capable of combatting its destabilizing effects on the purchases of these goods. The first variable we will take up is income.

Income

The percentage of disposable personal income devoted to consumer durable expenditures is set forth in Table II. During periods of relatively low income levels, the ratio of consumer durable expenditures to disposable income has been relatively low. For example, in the year of 1929---a year in which income was relatively high--this ratio stood at 11 per cent. In the depression year 1936, the ratio was considerably lower at 7.5 per cent. It would appear that spending on consumer durable goods is lower at lower levels of income for two reasons: (1) because consumers

TABLE II

CONSUMER DURABLE GOODS EXPENDITURES AS A

PERCENTAGE OF DISPOSABLE PERSONAL INCOME[1]

Year	Total[2]	Autos & Parts	Furniture & Furnishings	Other
	---------- d u r a b l e		g o o d s ----------	
1929	11.1	3.9	5.7	1.5
1930	9.6	2.9	5.3	1.5
1931	8.6	2.5	4.8	1.3
1932	7.5	2.0	4.3	1.2
1933	7.6	2.3	4.2	1.1
1934	8.1	2.6	4.3	1.2
1935	8.8	3.2	4.4	1.2
1936	9.5	3.5	4.8	1.2
1937	9.8	3.4	5.0	1.3
1938	8.7	2.5	4.8	1.4
1939	9.5	3.1	5.0	1.4
1940	10.2	3.6	5.2	1.4
1941	10.4	3.6	5.3	1.5
1942	5.9	.6	4.0	1.4
1943	4.9	.6	2.9	1.4
1944	4.6	.5	2.6	1.5
1945	5.4	.7	3.0	1.7
1946	10.0	2.5	5.4	2.1
1947	12.2	3.7	6.5	2.0
1948	11.8	3.9	6.1	1.8
1949	12.5	5.0	5.8	1.7
1950	13.9	6.0	6.3	1.6
1951	12.0	4.8	5.6	1.6
1952	11.2	4.4	5.3	1.6
1953	11.9	5.3	5.1	1.5
1954	11.5	4.9	5.1	1.6
1955	13.2	6.3	5.3	1.6
1956	11.9	5.1	5.2	1.5
1957	13.0	5.6	5.7	1.8
1958	11.8	4.5	5.5	1.4

[1]Adapted from data taken from:
Survey of Current Business, May, 1957, p. 10, and July, 1959, pp. 10, 15.
U. S. Income and Output, 1958 Supplement to Survey of Current Business, pp. 147, 153.

[2]Detail will not necessarily add to totals due to rounding.

have less total purchasing power and (2) because a lower ratio of durable expenditures to disposable income exists at lower levels of income. When the income level is considerably lower, naturally the proportion of it required for payment for fixed commitments and for essential expenditures (food, clothing, medicine, etcetera) is larger, and consequently the proportion of it devoted to durables is smaller.

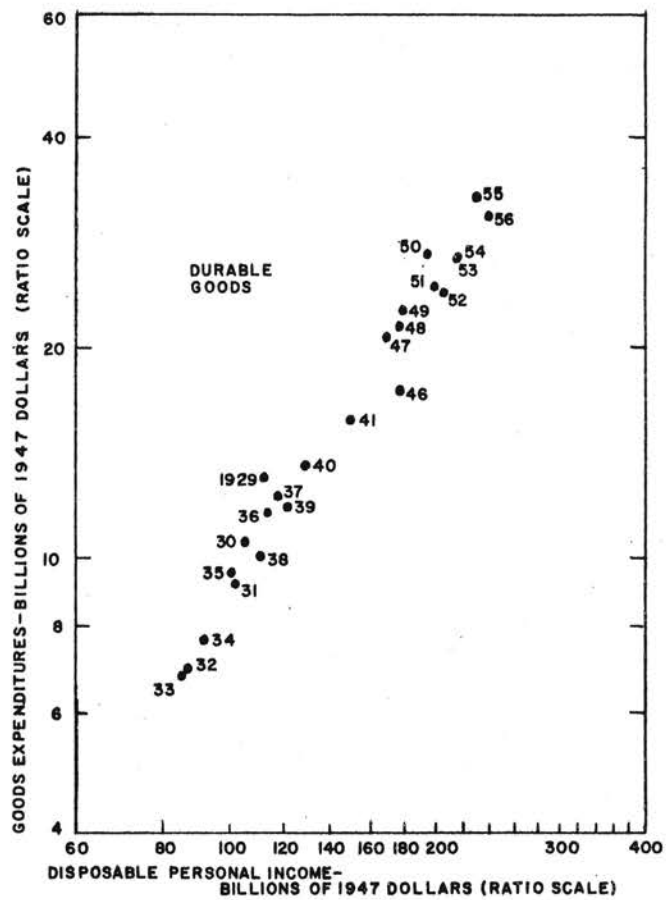
Now let us look at the relationship between income changes and spending on consumer durable goods. Change in income is an important factor in consumer allocation of funds to durable goods expenditures. A person does not immediately increase his outlay for food and other day-to-day expenses nor does he immediately move to better housing when income rises. However, part of most additions to income will be accumulated in the form of liquid assets or used for buying durable goods. Conversely, a consumer whose income declines may attempt to maintain customary living standards--at least for a short time. This may necessitate some decrease in durable goods spending and in current financial saving.[36]

Figure 6 shows real expenditures for goods plotted against real disposable personal income on a ratio scale for the period 1929 to 1956. The linear relationship shown indicates the close relationship between durable goods spending and income. It suggests that the income elasticity of consumer durable spending is fairly steady. Also, the rather steep slope of this linear relationship indicates the unusually high sensitivity of durable goods spending to income variation.

---

[36]"1958 Survey of Consumer Finances," Federal Reserve Bulletin, XLIV (1958), 762.

Real Consumer Durable Goods Expenditures Related to Real Disposable Personal Income



Source:
Survey of Current
Business
37:11, May, 1957

Figure 6

In 1950 the Department of Commerce issued a study as to the manner in which consumer demand would vary with income. The method used to obtain income sensitivities was to relate (through multiple correlation) changes in the amount of money spent for each type of commodity and service to changes in disposable income and a time trend. For example, a change in consumer income of 10 per cent is associated, on the average, with a change of 20 per cent in expenditures for automobiles, with 31 per cent for boats and pleasure aircraft, and 25 per cent for radios, phonographs and other musical instruments. The average sensitivity for all durables was 1.6--that is, fluctuations in the demand for durable items were over one and one-half times greater than the fluctuations in income. Out of the 22 durable-goods groups, only two showed co-efficients of less than 1. For the majority the measure of sensitivity was 1.4 or higher.[37]

We have been considering the relationship between consumer durable goods spending and disposable income. But it may be that another measure of income--discretionary income--varies even more closely with consumer outlays for these goods. It will be recalled from Chapter III that even though disposable income increased in the 1953-54 period, consumers reduced their spending on durable items by a large amount. Thus, consumer durable goods spending varied indirectly with this measure of income at this time. However, discretionary income fell by a large amount during 1953-54, varying directly with such spending. In the other postwar

---

[37]Clement Winston and Mabel A. Smith, "Income Sensitivity of Consumption Expenditures," Survey of Current Business, January, 1950, pp. 18-19.

recessions discretionary income and consumer durable purchases also moved in the same direction. The case just presented suggests that the change in discretionary income may be a better indication than the change in disposable income of the direction to be taken by consumer spending on durable goods.

By definition this would also appear to be true. As laid out in greater detail in Chapter I, discretionary income is arrived at by extracting from disposable personal income the following: (1) imputed income and income in kind, (2) major fixed commitments and (3) essential expenses associated with a postwar standard. Thus, only liquid savings and consumer durable expenditures remain to compete for the residual after the above extractions are made. So it may very well be that discretionary income is the variable which is the major determinant of the amount consumers allocate to the purchase of durable goods.

Although common sense dictates that income is the major determinant of consumer durable purchases, we have gone into the relationship between these two factors in some detail. We have seen that the level of disposable income is very important in determining expenditures on consumer durable goods. Also, consumer purchases of these goods are unusually responsive to changes in disposable income. Even though the relationship between consumer durable goods purchases and disposable income is very close, it may be closer between such purchases and discretionary income. Regardless of the measure of income, however, the major point to be gained from this discussion is that any moderation in the cyclical instability of consumers' income will abate the cyclical fluctuation in consumers' outlays on durable goods.

There are various ways of moderating the cyclical instability in consumers' incomes. The more important ones may be summarized as follows:

1. Changes in the amount of tax revenue taken by government from incomes of individuals. Some change occurs automatically with changes in incomes. Alteration of tax rates or of the design of the tax structure could give greater change.

2. Change in the contributions to the income stream by the government through "transfer payments," particularly farm income supports and unemployment compensation. Some change occurs automatically here also, but more can be obtained by change in the rates or structure of "transfer payments."

3. Change in the amount of expenditure by the government on public works or other things bought by government.[38]

Changes in income are automatically accompanied by changes in tax revenues in the same direction. Tax revenues change when income changes not only because of the resulting variation in the tax base. This is also a result of our highly progressive tax rates. When income drops, for example, it is subjected to lower tax rates; when it rises, it is taxed at higher rates. This causes income tax payments to fall relatively much faster than total personal incomes in contractions (or rise relatively much faster during business booms). For a change in tax payments greater than that obtained by relying solely on this automatic effect, the government could raise tax rates (and reduce exemptions) during booms and follow the opposite policy during depressions. Cyclical fluctuations in disposable income would be moderated by such action.[39]

---

[38] Milton Friedman et al., "The Problem of Economic Instability," Readings in Fiscal Policy, ed. American Economic Association (Homewood, Illinois, 1955), p. 418.

[39] Gordon, p. 501.

The most important counter-cyclical government transfer payments are those coming under the social security and farm support programs. Unemployment compensation bears more directly on the problem of stabilization than do other social security programs. Old-age retirement and some other types of social security payments do not vary significantly with the business cycle, but the very stability of these types of expenditures helps to moderate the severity of income fluctuations.[40]

There are two unemployment insurance programs--one which deals with the railroad industry and another which applies to the economy as a whole. These programs combined cover about two-thirds of all employees and three-fourths of all wages and salaries employees as of the late fifties. Unemployment compensation payments by the government move inversely with the business cycle. Payments are automatically increased to the unemployed during business downswings and decreased during booms. It has been estimated--using certain assumptions--that such payments could provide an offset to the decline in wages and salaries of one-fourth the total loss.[41]

A stabilizing influence similar to the above is exerted by the farm support program. When agricultural prices and thus net farm income is falling, the government makes large payments to farmers; these payments are decreased when farm prices and net farm income are rising. In recent years the federal government's program for maintaining farm income has had two main aspects: cash benefits and price supports. Cash benefits are paid directly to farm operators, mainly to encourage

---

[40] Ibid., p. 500.

[41] Lee, pp. 523-529.

conservation practices and to give incentives for production control through withdrawal of acreage from cultivation for specified crops. In the price-support program, cash is received by the farmers directly from nonrecourse loans made or guaranteed by the Commodity Credit Corporation of the Department of Agriculture and from its direct purchase of commodities. This action, by helping to maintain the income of an important economic sector, helps stabilize aggregate income and thus consumption of durable goods.[42]

The changes in unemployment compensation payments and farm supports discussed above occur automatically. As pointed out earlier, however, more change can be obtained by altering the rates or structure of these transfer payments. During a depression the maximum payments to the unemployed could be increased and the period of unemployment for which payments are made could be made longer. Likewise, soil bank payments could be increased and crops could be supported at higher prices to obtain a greater increase in farm support payments during a contraction.

When downswings in economic activity are especially severe, changes in the amount of government resource-using expenditures are more effective in reversing the downward trend in the income stream. Movements in national income should not be allowed to gain such momentum that the situation is carried out of reach of quick and effective action. This calls for such advanced planning as maintaining a shelf of public works projects and providing for administrative discretion to employ them and

---

[42] Daniel Creamer, Personal Income During Business Cycles (National Bureau of Economic Research, Inc.; Princeton, 1956), pp. 90-91.

the funds to put them into effect. Expenditures on public works and other things bought by government can go a long way in substantially counteracting severe drops in income.

In this subsection the unusually close relationship between income and consumer durable purchases has been pointed out. It follows from this relationship that fluctuations in income result in instability in consumer durable goods purchases and that reducing these fluctuations results in decreased cyclical variation in the purchase of these goods. Before moving on to study the next determinant of consumer durable purchases, let us briefly summarize the public policy measures which can be used to abate fluctuations in income. These measures consist of adding to income during depressions and taking from it during booms. This can be accomplished by varying the size of the tax revenue taken by the government from individual incomes, by variation of the contributions to the income stream by the government through transfer payments and variation in resource-using expenditures by the government.

Installment Credit

Installment credit, evolving with the growth of consumer durables in the 1920's, today accounts for 75 per cent of all consumer credit. The amount of this credit outstanding today totals about $34 million.[43] Installment credit is used to finance a variety of expenditures, but the dominant proportion of it is used to finance consumer durable purchases. By comparing retail sales of automobiles and consumer spending

---

[43] Federal Reserve Bulletin, XLV (1959), 300.

on other durables (excluding automobiles) with the pertinent types of installment credit extensions, it was estimated that such credit financed 49 per cent of the purchases of the former and 53 per cent of the latter.[44]

It is apparent that installment credit is an important source of financing consumer purchases of durable goods. This method of financing intensifies instability in industries supplying these goods because it tends to accentuate the cyclical movement in income. Increases in incomes in periods of expansion influence people to spend more than their incomes by using credit, causing spending to rise faster than incomes; and an even larger use of credit may be encouraged in such periods by easier installment credit terms. When income declines, the repayment of debts previously incurred and the restriction of installment credit terms force people to reduce expenditures more sharply than the fall in incomes. So installment credit is an important source of the increase in consumer purchases of durable goods during expansion and of the contraction in such purchases during depression.

The point made in the preceding sentence is further demonstrated by the behavior of installment credit during the postwar recessions. In the 1948-49 recession there was a decline in credit extensions and the rate of increase in outstanding credit.[45] Declining installment credit extensions and amounts of credit outstanding also took place during the 1953-54 recession. Lenders apparently applied some restrictive pressure

---

[44] Consumer Instalment Credit, Board of Governors of the Federal Reserve System, Volume 1, Part 1 (Washington, 1957), pp. 211, 213, 216.

[45] It should be pointed out that the decline in installment credit extended during this period may have occurred partially as a response to credit regulations which were reinstituted at this time.

at this time by tightening credit standards and checking, or possibly reversing, the trend toward easier terms.[46] The above is also true for the recent 1957-58 recession. Both total installment credit extended and that outstanding fell sharply around the end of 1957.[47] The decline in installment credit in each of the postwar recessions exerted a downward pressure on purchases of consumer durable goods during such period. This is a contributing factor to the cyclical behavior of purchases of these goods.

It is possible that installment credit can be influenced by economic policy in such a way that the result will be a greater degree of stabilization in consumer durable industries. The amount of installment credit extended can be affected by changing the demand for or the supply of it.

General monetary policy is usually thought of as influencing the cost and availability of the supply of credit. The major tools of monetary management for regulating the reserve or cash position of the commercial banking system--open market operations, changes in the rediscount rate, and changes in reserve requirements--are methods of limiting and stimulating credit expansion. However, strong arguments have been advanced that installment credit, compared to other types of credit is insensitive to restrictive monetary measures.

It is said that profits made by lenders of installment credit are very high relative to those of other kinds of credit. This tends to

---

[46] Consumer Instalment Credit, Board of Governors of the Federal Reserve System, Volume 1, Part 1 (Washington, 1957), pp. 212, 215.

[47] Federal Reserve Chart Book on Financial and Business Statistics (May, 1959), p. 43.

keep banks from restricting installment credit during expansionary times when interest rates are increasing. Non-bank lenders, to some extent, protect themselves in advance against tighter credit conditions by obtaining firm lines of credit from banks. And if this bank credit is restricted to them, these institutions shift to borrowing in the general credit market. Here a sustained high-profit record gives them pre-emptive strength in bidding for available credit supplies. That is, they are able to compete effectively for funds in terms of interest rates and other loan conditions. Because of the high profitability of installment credit, lenders--both bank and non-bank--appear to be unaffected by tight money policies.

Another factor contributing to the insensitivity of installment credit to general monetary policy is the inflexibility of consumer demand for this credit. Consumers tend to gear their use of credit to the amount of monthly payments. Installment credit charges are paid, like the principal, in monthly installments, so that even sizable changes in the annual rate of charge results in only small changes in the amount of monthly payments. For example, assume the interest rate for financing a $1,500 automobile increases from 4 per cent to 10 per cent. While the annual interest payment increases by almost $100, the interest paid monthly rises only $7.50. Also, these monthly payments can be held stable or even decreased by extending the maturity of the loan. The practical significance of this feature of the credit is that when consumer credit lenders find their financing costs rising, they can absorb these higher costs by means of higher charges to their customers.[48]

---

[48]Consumer Instalment Credit, Board of Governors of the Federal Reserve System, Volume 1, Part 1 (Washington, 1957), pp. 308-382.

If general monetary policy is ineffective or partially inadequate in controlling the supply of installment credit, the other alternative is to regulate the demand for this credit through restricting downpayments and maturity dates. This was done by Regulation W during the World War II period (1941-1947) and in early fall of 1948 through mid-1949. This regulation was reinstated again in 1950 with the outbreak of the Korean War, but was repealed in 1952 and has not been used since.[49]

Since this time the merits of establishing a standby authority which would permit regulation of installment credit terms on short notice have been debated. There has been much controversy on this subject. Some think general monetary policy altogether ineffective in this area and are, therefore, extremely interested in obtaining the standby authority. Others think selective credit regulation limits economic freedom and interferes with economic progress; at the same time, they believe general monetary policy quite effective in maintaining aggregate economic stability and that resorting to regulation of individual components of over-all demand is not needed.[50]

A good compromise would be to establish a standby authority to regulate installment credit terms as a supplement to general monetary policy. This would provide a limited tool to supplement general monetary instruments in regulating the flow of bank credit and growth in the stock of money. Insofar as such regulation, by directly impinging

---

[49] The Federal Reserve System: Purposes and Functions, (3rd ed., Washington, 1954), pp. 357-374.

[50] Consumer Instalment Credit, Board of Governors of the Federal Reserve System, Volume 1, Part 1 (Washington, 1957), pp. 357-374.

on demand, limits unusual changes in bank credit and money, it would directly attack a source of inflationary or deflationary pressures. The objectives of such regulation would be quantitative---even though mechanically the regulation would affect demand rather than supply--as such an authority would not be a step in the direction of regulation of the use of credit for any specific good.

Also, this authority would not substitute direct governmental interference for indirect, impersonal regulation, such as general credit and monetary regulation is commonly accepted to be. Installment credit regulation would operate by setting limits on credit terms available in the market place, with lenders and borrowers unrestricted, as far as regulation is concerned, in their extensions of borrowing of credit within these terms.

There are certain situations when this supplementary tool would be of definite advantage. When the main impetus to inflationary pressures stems from a surge of consumer durable goods buying financed by credit, it is difficult to justify a sharper use of general credit and monetary instruments. A restraint on the expansion of consumer installment credit under such conditions might prevent acceleration effects on business investment in inventory and plant capacity. This would eliminate the need for more vigorous use of general instruments at a later stage.

Also when inflationary pressures are such that sharply restrictive credit and monetary action is needed, special restriction on consumer installment credit may lessen the degree of restraint otherwise needed by general instruments. Regulation in inflationary times would also prove helpful when a downward adjustment of economic activity occurs.

A liberalization of credit terms could be prompted by the removal of regulation and this would serve to stimulate the economy. To obtain the full benefit of this stimulant, it would be desirable that credit terms during preceding inflationary periods had been subjected to restrictive regulation.[51]

Our first step in this subsection was to describe the relationship between installment credit and consumer durable goods purchases. In this connection it was said that installment credit enables people to spend more than their income during expansions and forces them to reduce expenditures sharply during contractions due to restricted credit terms and the necessity of repaying installment debts previously incurred. The destabilizing effect of installment credit on consumer durable goods was further pointed up by showing that amounts of such credit extensions declined during each of the postwar recessions, thereby exerting a downward pressure on consumer durable purchases during these periods.

The next step was to look into the public policy measures which could be used to regulate installment credit in such a way as to relieve some of its destabilizing effects on consumer purchases of durable goods. In this respect, the arguments for both general monetary and credit controls and selective credit controls were presented. Then it was advocated that the most advantageous measure to apply to installment credit to achieve greater stability in consumer durable goods industries would be general monetary and credit controls supplemented by selective credit controls.

---

[51]Ibid., pp. 374-376.

Liquid Assets

Generally speaking, people with more liquid assets (cash, bank deposits, government and private bonds, personal notes and mortgages, and stocks, for example) spend more out of current income throughout the year. Ownership of larger liquid assets results in increased spending primarily because of two reasons: (1) There is no need to save for contingencies if funds already on hand will take care of this need and (2) people with assets may use them for consumption and can, therefore, overspend their income or dissave.[52] This is to say that if they desire, they can switch from liquid assets to consumer durable goods. If consumer durable spending is the main competitor for funds remaining after necessary living expenses (food, shelter, et cetera) and contractual and semi-compulsory savings (annuities, life insurance, mortgage payments, et cetera) are met, short-run oscillations between spending on consumer durables and liquid savings can be expected.[53]

We have been thinking in terms of converting liquid assets into consumer durable goods, but it is just as conceivable that liquid assets may be increased at the expense of the purchases of these goods. This may be caused by an increase in the demand for money to hold as a cash balance on the part of consumers, for example. Certainly there is a great unwillingness to reduce one's standard of living; yet this fact

---

[52]Joseph P. McKenna, Aggregate Economic Analysis (New York, 1955), pp. 152-154.

[53]James N. Morgan, "Consumer Investment Expenditures," American Economic Review, XLVIII (1958), 876.

does not preclude the possibility that an attempt to increase cash balances may be made at the expense of a reduction in the purchase of durable goods. The useful life of such goods is elastic. One can keep an old automobile in operation for a while longer, even though it is noisy and unattractive, and though maintenance costs are high. So it seems very reasonable that a decline in the demand for durable consumers' goods should be one of the initial effects of an increase in the propensity to hoard.[54]

At certain strategic times from the viewpoint of stabilization policy, it is important to offset or mitigate increases or decreases in the oscillation between spending on durables and liquid savings. Large holdings of liquid assets--such as existed after World War II--can contribute substantially to inflationary pressures if they are allowed to be converted into durables at an extremely rapid pace, or if the feeling of security resulting from such holdings causes large increases in spending on durables out of current income. On the other hand, when the propensity to hoard is increasing, purchases of these goods may fall to very low levels causing their output and prices to fall and income to decline. As a secondary consequence, investment may be reduced, and the whole cumulative process of contraction will be under way.

Such sources of instability could be mitigated by varying the stock of money equivalently with the change in demand for liquid assets. If this demand for liquid assets increases, threatening to cause falling

---

[54] Lloyd W. Mints, Monetary Policy for a Competitive Society (New York, 1950), pp. 31-37.

prices and output of durables, the stock of money should be increased sufficiently to satisfy this increased demand. This action may eliminate an initiating factor in a depression. The opposite technique could, of course, be used in the reverse situation.[55]

Speculative Gains and Losses

Speculative gains and losses refer to actual subtractions and additions to income resulting from security transactions. The additions to income resulting from speculative gains are considered by the consumer as so much "gravy," and are therefore especially stimulating to consumer durable spending. Such increases in income are usually the product of booms, an especially striking example being the period of the late 1920's. Speculative losses exert the opposite influence on consumer durable spending. As such losses appear during the early stages of contraction, their damping influence on consumer durable purchases results in an additional deflationary force which is active around the beginning of a downturn in business activity.[56]

The instability added to the income stream and thus consumer durable purchases by speculative gains and losses can be partially offset by government spending and revenue raising activity. However, through the use of selective controls it may be possible to mitigate the developments of extraordinary speculative gains and losses, and thus eliminate a source of income instability.

---

[55] Ibid.

[56] D. Hamberg, pp. 373, 385, 456.

Since 1934 the Board of Governors of the Federal Reserve System has had the authority to curb excessive use of credit for the purpose of purchasing or carrying securities. It can do this by limiting the amount that brokers and dealers in securities, banks, and others may lend on securities for that purpose. These limitations may be thought of as prescribing either minimum margin requirements or maximum loan values.

The Board of Governors established margin requirements under Regulations T and U. The amount that can be lent against securities as collateral is always smaller than the current market value of the securities, and the difference between the two is called the margin. Thus, if a loan of $7,500 is secured by stock worth $10,000, the margin is $2,500 or 25 per cent of the value of the stock. The greater the margin required, the smaller will be the loan value, that is, the amount that can be lent against securities as collateral.

The control effected by margin requirements does not bear directly on the lender, but it puts a restraint upon the borrower and dampens demand. It can be used, therefore, to keep down the volume of stock market credit even though lenders are able and eager to lend. Accordingly, such control may abate an important inflationary force during booms which might otherwise develop into a powerful deflationary force later.[57]

Durable Assets

Generally speaking, it can be said that the larger the stock of durable goods in the hands of consumers, the smaller will be the purchase

---

[57] The Federal Reserve System: Purposes and Functions, Board of Governors of the Federal Reserve System (3rd ed., Washington, 1954), pp. 57-60.

of consumer durables. A way of explaining this relationship is to assume that purchases of durables are related to income but that the level of purchases is related to the stock of durable goods. This means that the larger the stock, the smaller the amount of durable consumption when income is zero, thus reducing consumption expenditures at all levels of income.[58]

After building up stocks for a certain period (say over a boom period or before a war), the rate of growth in these stocks will begin to decline. When this rate of growth slows down, net purchases will start falling to a lower level. Likewise, following a period of stock depreciation, additions to stocks first occur slowly, growing at an increasing rate. This means that net purchases are rising to a higher level. In this manner, stocks play an important role in the cyclical movement of consumer durable purchases.[59]

By avoiding rapid accumulation of these stocks to great heights such as occurred after World War II, the following decline in consumer durable purchases may be made less severe. At the same time, it may be that an important inflationary force is mitigated. It will be recalled that although other consumer durable purchases declined in the recession of 1948-49, automobile purchases increased as consumers had not been able up to this date to replenish their stocks of this item to the pre-war level. This was certainly a factor making the decline less severe.

---

[58]McKenna, pp. 150-152.

[59]Alvin H. Hansen, Business Cycles and National Income (New York, 1951), pp. 187-190.

If stocks of consumer durable goods are increasing so rapidly that net purchases of such goods constitute an inflationary force, it may be advisable to reduce these purchases. Purchases of consumer durable goods during boom periods can be reduced in a number of ways, as have previously been discussed. Very briefly, the level of disposable income can be decreased by varying government spending and revenue raising activities in the appropriate way, and installment credit can be decreased by general monetary measures supplemented by selective installment credit controls. In addition, speculative excesses can be reduced by selective controls, and liquid assets can be decreased by decreasing the supply of money.

Market Imperfections

In Chapter III it was pointed out that the market structure might be partially responsible for the recent instability in the output of consumer durable goods. It was shown that in the face of decreasing demand for such goods in the 1957-58 recession, prices did not fall as they would be expected to in a competitive economy. Instead they were increased and output was cut back. Associated with these industries are such dominant firms as General Motors, Westinghouse, General Electric and others. Also, large unions--such as the United Automobile Workers--have their place in these industries.

For such oligopolistic firms, output tends to be relatively more variable than prices over the business cycle. It is under such market organization that businessmen are best able to maintain prices by varying output over a wide range in response to cyclical shifts in demand.[60] Along the same line, it is the policy of unions to always push for higher wages and to avoid wage cuts at almost any cost. The result of such a market situation may well be that neither prices nor wages adjust in the traditional manner.

Such a market structure limits the effectiveness of monetary and fiscal policy. If these policy measures succeed in limiting consumer durable demand during a period of inflation, the expected result is a decrease in price and wage pressures in this economic sector. However, if large firms and unions dominate the industries to a sufficient degree, the expected result may not occur. The oligopolistic firms may elect to hold to their prices, accepting reduction in volume, and thus their labor force. Thus the result of the use of monetary and fiscal measures to curb inflation may result in reduced output and employment in these industries which in turn may spread to other parts of the economy.

If decreases in demand for consumer durable goods lead to decreases in output and employment in this sector and throughout the economy, we must reach the conclusion that only by imposing inflation upon the economy can we prevent significant amounts of unemployment.

It is, however, one of the basic principles of stabilization policy not to interfere with the operation of the free market. If rigidities have developed in the consumer durable goods industries to such an extent as to compel the use of stabilization powers to promote deliberate

---

[60] Gordon, pp. 241-242.

price instability, the more appropriate action would seem to lie along lines of anti-trust and labor-management legislation.[61]

Policy Measures Are Available to Combat Instability in Consumer Durable Goods Industries

The more changeable variables influencing purchases of consumer durable goods are income, installment credit, liquid assets, speculative gains and losses, durable assets, and market imperfections. Each of these variables was studied in this chapter with respect to (1) the relationship existing between it and consumer durable expenditures and (2) measures of economic policy which may be used to counteract its destabilizing effect on consumer durable industries. This study was made to learn whether existing measures of economic policy were adequate with respect to controlling fluctuations in this sector of the economy.

It was found that each variable was responsive to some type of existing policy measure. Income can be changed by government spending and revenue raising activities; installment credit is influenced by general monetary policy measures supplemented by selective installment credit control; liquid assets can be increased or decreased by varying the supply of money; excessive speculative gains and losses can be

---

[61]Lee, p. 544-545.

We are not in any way prejuding the extent to which consumer durable industries are under the control of firms or unions which are capable of exercising oligopoly power in the manner discussed above. What we are doing is suggesting that this is a possibility; and, if this is the case, there is no reason for perverting the purposes of a stabilization program to these industries when they could be better handled by market policy.

combatted by raising and lowering margin requirements; rapid accumulation of durable assets and the consequent period of very low purchases can be abated by taking steps to reduce excess purchases of these goods during booms. This can be done by influencing income, installment credit, liquid assets and speculative gains and losses in the desired direction. Finally, if severe rigidities have developed in this component of the economy because of dominant firms and unions, it may be that stability in this sector can be better enhanced by anti-trust and labor-management legislation than any other type of action.

It can be concluded on this basis that current general fiscal and monetary policy could be quite effective in promoting stability in consumer durable industries. For maximum effectiveness, these policy measures should be supplemented with appropriate selective controls whenever necessary without the fear that such action will result in malallocation of resources. And if it appears that price and wage rigidities have developed to an extent that monetary and fiscal policy are less effective, the best action would seem to lie in the application of market policy.

CHAPTER V

SUMMARY AND CONCLUSIONS

Traditionally economists have thought and studied about the production of investment goods in connection with economic stability. At the same time, consumer goods production has been viewed as being rather stable and thus unimportant in this respect. It is our position, however, that a certain type of consumer goods production--the output of consumer durable goods--is highly fluctuating and that such production should be considered as a factor substantially affecting the stability of the economy. In view of this hypothesis, this paper has been devoted to the problem of establishing the impact of consumer durable goods production on economic stability and examining the usefulness of existing measures of economic policy in coping with the destabilizing behavior of such production. The following represents a summary of the conclusions reached with reference to this problem.

A large share of total resources is used in the production of consumer durable goods. In recent years, for example, these goods have accounted for approximately 10 per cent of Gross National Product. Some idea of the dollar value of the resources tied up with consumer durable goods industries can be gained from observing that $392 billion has been spent on such goods since the war and that consumers are currently spending around $40 billion a year on these items. From all indications, it appears that the share of total resources flowing into the production of consumer durable goods is going to grow larger and larger each year assuming the current trend continues. In terms of constant dollars, annual expenditures on consumer durable goods have increased over $23 billion since 1929 and have been increasing at the rate of $1.7 billion a year in the postwar period.

In view of the large amount of resources flowing into the production of consumer durable goods and the strong implications that such amounts will be greater in the future, we can conclude that any instability in consumer durable industries would result in substantial fluctuations in income, output and employment in these industries and throughout the economy.

An examination of the behavior of consumer durable goods production since World War II leaves no question as to the instability in such production. During this time, consumer durable goods production has been even more unstable than the two very volatile economic series "industrial production" and "investment outlays on plant and equipment." In addition, the pattern of this instability is such that it enhances overall economic instability. During the interwar period--1919 to 1938--consumer durable goods production conformed perfectly to business cycles, falling in every contraction and rising in every expansion. During the postwar period such production also rose in every expansion and fell in every recession (with the exception of the 1948-49 period).

The causes for the recurrent declines in consumer durable goods production--which help generate economic instability by conforming to declines in general business--are as follows. Declines in consumer durable goods output during recessions are responses to declines (or expected declines) in final and inventory demand for such items. The stimulus of the decline in final demand is transmitted to consumer durable production through inventory demand and magnified in this process by the acceleration principle. However, even though inventory demand plays an important part in the decline in consumer durable goods production, it is final demand which is at the source of such decline; thus the causal factors behind declines in final or consumer demand are the ultimate forces causing declines in consumer durable output. The more volatile factors responsible for reduction in final or consumer expenditures for durable goods and thus declines in their production are income, installment credit, liquid assets, speculative gains and losses and durable assets. Market imperfections are also important in this respect.

Existing general monetary and fiscal policy measures accompanied by certain selective policy measures are capable of altering the amount of income, installment credit, liquid assets, speculative gains and losses and durable assets going to the consumer. Variation in these items results in variation in consumer spending on durable goods, which in turn cause changes in the production of such goods. Therefore by applying economic policy measures, we are able to influence the output of consumer durable goods in the direction necessary to combat the destabilizing behavior of this economic series. It may be, however, that the market structure of consumer durable industries has drifted so far from a competitive structure that it limits the effectiveness of economic policy measures. If this is true, the most appropriate action to be taken with respect to consumer durable goods industries would lie along the lines of anti-trust and labor-management legislation.

In short, we conclude from this study that the fluctuations in consumer durable industries substantially augment economic instability, but that by applying general monetary and fiscal policy measures supplemented by certain selective measures we should be able to mitigate the destabilizing effects of this segment of the economy.

SELECTED BIBLIOGRAPHY

Abramovitz, Moses (National Bureau of Economic Research, Inc.). Inventories and Business Cycles. New York: The Gallery Press, 1950.

Boulding, Kenneth E. Principles of Economic Policy. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958.

Brownlee, O. H. and E. D. Allen. Economics of Public Finance. 2nd ed., Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1954.

Clark, Eugene and B. E. Grimes. Goals of Economic Policy. Dubuque, Iowa: Wm. C. Brown Company, 1955.

Creamer, Daniel. Personal Income During Business Cycles. Princeton: National Bureau of Economic Research, Inc., 1956.

Fellner, William. Trends and Cycles in Economic Activity. New York: Holt, 1956.

Friedman, Milton, et al. "The Problem of Economic Instability." Readings in Fiscal Policy, ed. American Economics Association. Homewood, Illinois: Richard D. Irwin, Inc., 1955.

Gordon, R. A. Business Fluctuations. New York: Harper, 1952.

__________. "Types of Depressions and Programs to Combat Them." Policies to Combat Depression, ed. National Bureau of Economic Research, Inc. Princeton: Princeton University Press, 1956.

Haberler, Gottfried Von. Consumer Installment Credit and Economic Fluctuations. New York: National Bureau of Economic Research, Inc. 1942.

__________. Prosperity and Depression. 4th ed., Cambridge: Harvard University Press, 1958.

Hald, Earl C. Business Cycles. Cambridge: The Riverside Press, 1954.

Hamberg, D. Business Cycles. New York: The MacMillan Company, 1951.

Hansen, Alvin H. Business Cycles and National Income. New York: W. W. Norton and Company, Inc., 1951.

Hansen, A. H. and R. V. Clemence. Readings in Business Cycles and National Income. New York: W. W. Norton and Company, Inc., 1953.

Kuznets, Simon. National Product Since 1869. New York: National Bureau of Economic Research, Inc., 1946.

Lee, M. W. Economic Fluctuations: Growth and Stability. 2nd ed., Homewood, Illinois: Richard D. Irwin, Inc., 1959.

Lundberg, Erik. The Business Cycle in the Post-war World. New York: St. Martin's Press, 1955.

McKenna, J. P. Aggregate Economic Analysis. New York: The Dryden Press, 1955.

Maisel, Sherman J. Fluctuations, Growth and Forecasting. New York: John Wiley and Sons, Inc., 1957.

Mints, Lloyd W. Monetary Policy for a Competitive Society. New York: McGraw-Hill Book Company, Inc., 1950.

Mitchell, W. C. (National Bureau of Economic Research, Inc.). What Happens During Business Cycles. Cambridge: The Riverside Press, 1951.

Morgan, James N., "Consumer Investment Expenditures," American Economic Review, XLVIII (1958), 876-902.

Moore, Geoffrey H. Measuring Recessions, Occasional Paper 61, National Bureau of Economic Research, Inc., reprinted from June, 1958, issue of Journal of American Statistical Association.

Snyder, R. M. Measuring Business Changes. New York: John Wiley and Sons, Inc., 1955.

"A Long Look at the Postwar Boom." Conference Board Business Records, XI (1954), 432-441.

"Statistics of Three Recessions." Conference Board Business Records, XI (1954), 463.

"Price Behavior in Nine Recessions." Conference Board Business Records, XV (1958), 178-183.

"Discretionary Income: A New Measure of Consumer Markets." Conference Board Business Records, XV (1958), 196-199.

"Exploring the 1958 Automobile Market." Conference Board Business Records, XV (1958), 304-307.

Conference Board Business Records, XV (1958), 197.

Conference Board Business Records, XVI (1959), 222.

Consumer Installment Credit, Board of Governors of The Federal Reserve System, Vol. I, Part 1 (Washington, 1957).

"1949 Survey of Consumer Finances," Federal Reserve Bulletin, XXXV (1949), 634-656.

"Consumer Durable Goods Market," Federal Reserve Bulletin, XL (1954), 433-437.

"New Indexes of Output of Consumer Durable Goods," Federal Reserve Bulletin, XL (1954), 438-452.

Federal Reserve Bulletin, XL (1954), 448-451.

"1954 Survey of Consumer Finances," Federal Reserve Bulletin, XL (1954), 570-586.

Federal Reserve Bulletin, XLI (1955), 318-319.

"1955 Survey of Consumer Finances," Federal Reserve Bulletin, XLI (1955), 465-481.

Federal Reserve Bulletin, XLIV (1958), 482.

"1958 Survey of Consumer Finances," Federal Reserve Bulletin, XLIV (1958), 760-775.

Federal Reserve Bulletin, XLIV (1958), 1223.

Federal Reserve Bulletin, XLV (1959), 56, 300, 310.

Federal Reserve Bulletin, XLVII (1961), 362.

Federal Reserve Chart Book on Financial and Business Statistics, (May, 1959), 43-57.

The Federal Reserve System: Purposes and Functions, Board of Governors of the Federal Reserve System. (3rd ed., Washington, 1954).

Clement Winston and Mabel A. Smith, "Income Sensitivity of Consumption Expenditures," Survey of Current Business, January, 1950, pp. 17-20.

Survey of Current Business, May, 1957, pp. 10-11.

Survey of Current Business, July, 1959, pp. 10, 15.

U. S. Department of Labor, *Employment and Earnings*, August, 1957, pp. 2-7.

U. S. Department of Commerce, *U. S. Income and Output, 1958 Supplement to the Survey of Current Business*, 118-121, 147, 153, 193.

VITA

Dorothy Cooper Dempsey

Candidate for the Degree of

Master of Science

Thesis: CONSUMER DURABLE GOODS INDUSTRIES AND ECONOMIC INSTABILITY

Major Field: Economics

Biographical:

Personal Data: Born in Harrison, Arkansas, May 8, 1937, the daughter of I. F. and Vera Cooper.

Education: Attended grade school in Deer, Arkansas; graduated from Harrison High School, Harrison, Arkansas, in 1954; received the Bachelor of Science degree from Arkansas State Teachers College, with a major in Business Administration, in May, 1958; completed requirements for the Master of Science degree at Oklahoma State University in August, 1961.

Working Experience: Worked in Trust Department, First National Bank of Shreveport, Shreveport, Louisiana; now employed as income tax auditor with Internal Revenue Service, Shreveport, Louisiana.