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APPENDICES

TO

THE ECONOMIC IMPACT

OF

NASA R & D SPENDING

PRICES SUBJECT TO CHANGE

PREPARED FOR:

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

UNDER CONTRACT NO. NASW-2741

WASHINGTON, D. C.

PREPARED BY:

MICHAEL K. EVANS

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Appendix A

Theoretical and Empirical Development of Aggregate Production Functions

1. Cobb-Douglas Functions

The development of the aggregate production function stems from 1928, when C. W. Cobb and P. H. Douglas published their seminal article entitled, "A Theory of Production" (12). The first form of the equation which they tested incorporated constant returns to scale but did not include any term for technological change. This well-known function can be written as

$$(1) \quad X = AL^\alpha K^{1-\alpha}$$

where

X = actual production in the manufacturing sector

A = scale factor

L = number of workers employed, manufacturing sector

α = elasticity of output with respect to labor

K = amount of fixed capital, manufacturing sector

The approach has been generalized to include the total private nonfarm sector, but the original Cobb-Douglas study was done only for the manufacturing sector because of data limitations.

In his well-known article, "Are There Laws of Production?" (20), Douglas mentions that David Durand (21) suggested that he try estimating this function without imposing the assumption of constant returns to scale, and also that the study be expanded to include cross-section estimates; both of these were tried. Douglas' further results indicated that even if constant returns to scale were not imposed on the function, the sum of the coefficients $\alpha + \beta$ in the function

$$(2) \quad X = AL^\alpha K^\beta$$

was very close to, although slightly less than, unity. However, the coefficient α from the cross-section data averaged only 0.63, significantly less than the

average of 0.77 taken from the time-series estimates. Furthermore, and probably more important, the value of α declined to 0.63 in the time-series regression in which Douglas eliminated the trend factor from each of the variables in his regression. He mentions that this finding "may be of some significance" but does not pursue the matter further.

The concept that generalized trend factors which were not related to labor or capital also contributed to economic growth could not go unattended, however. The first attempts to incorporate a time trend in the Cobb-Douglas function appears to have been undertaken by Tinbergen (64) and by Valavanis (65) in his growth model of the U. S. economy 1869-1953. Both economists wrote their equations in the now-familiar form of

$$(3) \quad X = AL^{\alpha}K^{\beta}e^{\gamma t}$$

and found that γ ranged from 0.75% to 1.5% per year. Using a somewhat different approach, Schmookler (60) found that γ was approximately 1.5% per year for the period 1909 to 1934.

In the meantime, a number of very substantial studies were being undertaken, mostly under the auspices of the NBER, to measure the determinants of economic growth. Foremost among these were works by Abramovitz (1), Fabricant (25) and Kendrick (32). All of these studies endorsed the position that factors other than labor and capital were responsible for economic growth in the U. S. economy. Clearly increases in output/manhour could not be explained by increases in the capital stock alone.

The seminal attempt to handle this problem on a rigorous basis is due to Solow, in his famous "Technical Change and the Aggregate Production Function" (61). Apparently somewhat defensive about his use of such a concept as the aggregate production function, Solow states that "the aggregate production function is only a little less legitimate a concept

than, say, the aggregate consumption function ... As long as we insist on practicing macro-economics we shall need aggregate relationships."

These apologies to his M.I.T. colleagues out of the way, Solow then proceeds to his principal development, which is "an elementary way of segregating variations in output per head due to technical change from those due to changes in the availability of capital per head." The production function which Solow chooses is written as

$$(4) \quad X = A(t) f(K, L)$$

No attempt is made to impose the Cobb-Douglas form at this point, although this is the form which he actually prefers both in this article and in his next article, discussed below. The form chosen by Solow incorporates the assumption of neutral technical change, which is to say that shifts in the production function leave marginal rates of substitution unchanged, simply increasing or decreasing the output attainable from given inputs.

If we differentiate (4) above with respect to time and divide by X, we obtain

$$(5) \quad \frac{\Delta X}{X} = \frac{\Delta A}{A} + A \frac{\partial f}{\partial K} \frac{\Delta K}{X} + A \frac{\partial f}{\partial L} \frac{\Delta L}{X}$$

If we define w_L and w_K as the relative shares of labor and capital, then

$$(6) \quad w_L = \frac{\partial X}{\partial L} \frac{L}{X} \quad \text{and} \quad w_K = \frac{\partial X}{\partial K} \frac{K}{X}$$

since

$$(7) \quad \frac{\partial X}{\partial L} = A \frac{\partial f}{\partial L} \quad \text{and} \quad \frac{\partial X}{\partial K} = A \frac{\partial f}{\partial K}$$

we then obtain

$$(8) \quad \frac{\Delta X}{X} = \frac{\Delta A}{A} + w_L \frac{\Delta L}{L} + w_K \frac{\Delta K}{K}$$

Solow estimates a variant of this function for the period 1909-1949, and finds that $\frac{\Delta A}{A}$ (which is, of course, our γ) has increased about 1.5% per year over the

period, which is close to other results in spite of an embarrassing error in the data which causes Solow to omit seven years of data with a comment that "it would be better if they (the omitted observations) could be otherwise explained away."

At several points in his article Solow hints at the fact that his method is incomplete because it does not take into account improvements in quality of the labor force or the capital stock; however, he does not develop this concept formally. The concept that technical progress takes place through an increase in investment, which has become one of the cornerstones of productivity theory and measurement, was first propounded by Leif Johansen, in his "Substitution Versus Fixed Production Coefficients in the Theory of Economic Growth: A Synthesis" (30). Johansen's principal assumptions are stated as follows:

From the point of time when an amount of capital is produced, it will shrink according to a given function of its age. The labour input needed to operate the capital and the production achieved shrink proportionately ... we assume that each amount of capital consists of a certain number of identical pieces or units which are operated in the same way and retain their productive efficiency during their entire life time.

New production techniques can be introduced only by means of new capital equipment.

The Johansen paper, while thorough and accurate, is not easy to follow and drifts off into a detailed discussion of solution of Bernoulli mixed difference-differential equations. Consequently, the approach which is usually followed is once again due to Solow, who, in his inimitable fashion has popularized this entire approach by coining the term "vintages" of capital. As a matter of fact the term is rather inappropriate, for while wine improves with age, capital equipment certainly does not. Yet the idea of vintage models is known

to virtually all who have toiled in the economic vineyard, while the method of solution for mixed differential-difference equations is still considered as one of the more esoteric corners of economics. In addition, the Solow exposition is quite a bit clearer, so we follow his approach in formulating this concept.

Solow starts out with the by now familiar Cobb-Douglas production function with constant returns to scale and exponential growth, i.e.,

$$(9) \quad X = AL^\alpha K^{1-\alpha} e^{\gamma t}$$

He then distinguishes capital equipment of different dates of construction or vintages. $K_v(t)$ represents the number of machines or units of capital of vintage v (i.e., produced at time v) still in existence at time $t \geq v$, so we can write

$$(10) \quad K_v(t) = I(v) e^{-\lambda(t-v)}$$

where λ is the economic depreciation rate of capital and hence $1/\lambda$ is the average length of life of capital.

This implies that

$$(11) \quad X_t = AL^\alpha J^{1-\alpha} e^{-\lambda(1-\alpha)t}$$

where

$$(12) \quad J(t) = \int_{-\infty}^t e^{(\lambda + \frac{\gamma}{1-\alpha})v} I(v) dv$$

If $\lambda=0$ then this reduces to the original equation (9) above.

Thus Johansen and Solow have introduced into the production function the fact that technological progress occurs largely through higher rates of investment; that if investment were to remain stagnant, the residual factor which was previously assumed to be exogenous or due to autonomous growth would in fact rise much less rapidly. This is known as embodied

technical change, since the improvements in technology are embodied in new capital. This assumption is now standard when working in the area of production functions.

One minor difference exists between the Solow and Johansen approaches. Johansen assumes that the capital/labor ratio for each vintage is fixed at the moment capital is produced and is invariant thereafter; this approach was later named "putty-clay" by Phelps (57) and is the more usual assumption. Solow, on the other hand, assumes that factor proportions are freely variable throughout the life of the equipment, a view which is not often utilized.

The major attempt to introduce improvements in the quality of labor has, as we have seen, been provided by Denison. We could interpret Denison's results in the manner of Solow, in which case we would have

$$(13) \quad X_t = A' (Lq)_t^\alpha J_t^{1-\alpha} e^{-\lambda(1-\alpha)t}$$

where q is an overall index of labor quality.

Nelson (53) has shown that the Solow function with embodied technical change (11) can be closely approximated by

$$(14) \quad \frac{\Delta X}{X} = \left[\frac{\Delta A'}{A'} + (1-\alpha) \lambda \bar{a} \mu_K \right] + \alpha \frac{\Delta L}{L} + (1-\alpha) (1+\mu_K \bar{a}) \frac{\Delta K}{K}$$

where

\bar{a} = average age of capital

μ_K = average rate of increase in the quality of new capital goods.

In other words, using the embodiment hypothesis does not fundamentally alter the Cobb-Douglas function, but does increase the coefficient attached to capital stock growth by a factor of $(1+\mu_K \bar{a})$. While exact estimates are not available, we probably have $\mu \cong 0.02$, $\bar{a} \cong 17$. Since $(1-\alpha) \cong 1/4$ under the

original Cobb-Douglas hypothesis, $(1-\alpha)(1+\mu\bar{a}) \cong 0.33$ when embodied technical change is considered. These estimates agree very closely with recent factor share data.

The quality of labor improvement term suggested by the work of Denison is not so easily handled. Using the same method of approximation used to derive (14) above, equation (13) can be transformed to

$$(15) \quad \frac{\Delta X}{X} = \frac{\Delta A^*}{A^*} + \alpha \mu_L + (1-\alpha) \mu_K - (1-\alpha) \mu_K \Delta \bar{a} + \alpha \frac{\Delta L}{L} + (1-\alpha) \frac{\Delta K}{K}$$

where

μ_L = average rate of increase in the quality of labor.

One might think that the treatment of μ_K and μ_L would be symmetrical; however, that is not the case. The difference lies in the fact that μ_K applies to new capital, while μ_L applies to all labor. Hence μ_L does not represent the productivity increase embodied in labor in the same sense that μ_K represents this increase for capital. Thus as a practical matter, Denison must make various adjustments which result in treating the calculation of μ_L as if it applied to new applicants to the labor force. This is accomplished primarily by using education as the principal determinant of μ_L ; it can then reasonably be argued that improvements in basic educational standards principally affect new entrants to the labor force.

Once one has explored the embodiment hypothesis for labor and capital, there is little else which can be done with the Cobb-Douglas function. Repeated attempts to determine whether or not the assumption of constant returns to scale is justified has almost always resulted in the sum of $\alpha+\beta$ not significantly different from unity -- with approximately as many values above unity as below. The only major extension of the function has been in

the area of adding third or fourth factors, such as land, raw materials, or in the case of Raines (59), research and development as additional factors of production. These results are adequately summarized in Walters (66).

2. CES Production Functions

The floodgates of research were opened by the development of the constant elasticity of substitution (CES) production function, which lifted the restriction that the elasticity of substitution be restrained to unity, as is assumed by the Cobb-Douglas function. This function is usually credited to Arrow, Chenery, Minhas and Solow (4) but was also developed independently by Brown and deCani (7). The CES function is derived from the relationship

$$(16) \log \left(\frac{X}{L} \right) = a + \sigma \log \left(\frac{w}{p} \right)$$

where

w = wage rate

p = price of output

σ = elasticity of substitution

This relationship, while not as restrictive as the Cobb-Douglas function, still assumes the following:

- a) cost minimization
- b) the existence of an aggregate production function with disembodied technical change
- c) no adjustment lag between (X/L) and (w/p). As we have indicated in the text, this is a very stringent and unrealistic assumption. The usual CES function derived from (16) is

$$(17) X = \gamma \left[\delta K^{-\rho} + (1-\delta)L^{-\rho} \right]^{-1/\rho}$$

where

γ = parameter of efficiency

δ = parameter of distribution

ρ = parameter of substitution

μ = degree of returns to scale

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Note that $\sigma = \frac{1}{1-\rho}$

The major pitched battle in this area has taken place over whether σ is significantly less than unity; for if it is not, Cobb-Douglas will suffice.

Once again a useful approximation by Nelson () throws some light on the relevance and importance of σ . He shows that the CES production function can be closely approximated by

$$(18) \quad \frac{\Delta X}{X} = \frac{\Delta A}{A} + \alpha \frac{\Delta L}{L} + (1-\alpha) \frac{\Delta K}{K} + \frac{1}{2} \alpha(1-\alpha) \frac{\sigma-1}{\sigma} \left[\frac{\Delta K}{K} - \frac{\Delta L}{L} \right]^2$$

Suppose we substitute some reasonable values: $\frac{\Delta A}{A} = 0.02$, $\alpha = 2/3$, $\frac{\Delta L}{L} = 0.02$, $\frac{\Delta K}{K} = 0.04$, and then solve for $\frac{\Delta X}{X}$ with $\sigma = 1$ and $\sigma = 1/2$. Carrying out the indicated arithmetic, we find that

$$\text{For } \sigma = 1: \quad \frac{\Delta X}{X} = 0.02 + \frac{2}{3} (0.02) + \frac{1}{3} (0.04) = 4.67\%$$

$$\text{For } \sigma = 1/2: \quad \frac{\Delta X}{X} = 0.0467 - \frac{1}{2} \cdot \frac{2}{3} \cdot \frac{1}{3} (0.02)^2 = 0.0467 - 0.00004$$

Clearly the additional term contributes virtually nothing.

Nerlove, who introduces Nelson's approximation into his review article on CES and related production functions (55), then feels obligated to defend the possibility of $\sigma \neq 1$. He first points out that the results may be significantly different if longer periods of time are considered. However, he offers no empirical evidence of this, and if we repeat the calculations given above over a 50-year period, we still find little difference in the results. Second, Nerlove states that the results might be different if the growth rates for labor and capital were modified to take quality changes into account, but he admits these factors are probably offsetting. Third, he appeals to differences at the industry level, claiming that differences in σ among industries may lead to significant effects on the rate of growth, and he suggests that high elasticities of substitution in primary production and lower elasticities of substitution

in secondary and tertiary industries would be consistent with the behavior of the labor force in developed economies (55 , pg. 57). However, the results which Nerlove examines later do not support his conjecture.

A partial answer to the importance of this sector order term is provided by Kmenta (34), who estimates a variant of the Nelson approximation, namely

$$(19) \log X = \log \gamma + \mu \delta \log \left(\frac{K}{L} \right) + \mu(1-\delta) \log L - \frac{\mu \rho \delta (1-\delta)}{2} \log \left(\frac{K}{L} \right)^2$$

where γ , μ , δ , and ρ are as in equation (17).

Kmenta does find the second-order term significant, although higher-order terms are not, unless σ is greatly different from unity and the K/L ratio is either very high or very low.

Nerlove then reviews a number of studies in order to determine whether any consensus estimate of σ can be obtained by adjusting the various studies for differences in data, sample period, functional form, independent variables, and other variants. He first turns to cross-section studies, and analyzes the results of Arrow, Chenery, Minhas & Solow (4), Fuchs (27), Minasian (48), Solow (63), Liu and Hildebrand (36), and Dhrymes (17). The first two studies deal with inter-country comparisons, while the other studies deal with two-digit manufacturing industries in the U. S. Nerlove tries to explain some of the differences on the basis of different times in the business cycle, which is a very sensible approach, but then muffs his explanation by incorrectly referring to 1957 as a recession year. In spite of his heroic effort, no progress is made in trying to force these results into agreement.

The time-series which Nerlove compares include studies by McKinnon (45, 46), Kendrick (32), Ferguson (26), Maddala (39), and Lucas (37).

Again the emphasis is placed on two-digit industry classifications in the manufacturing sector. While one might be inclined to think that the time-series estimates might be more consistent than the cross-section estimates because they all use virtually the same data, this is emphatically not the case. All researchers except Ferguson report negative σ for at least one industry, and the typical variation ranges from $\sigma = 0.03$ to greater than unity for most industries. Again no agreement seems possible.

While it is not possible for Nerlove, nor do I think it possible for anyone else, to resolve all the disparate values of σ , the following major points appear to emerge:

(1) The value of σ is very sensitive to the method of estimating due to the simultaneous determination of X/L and W/P . Thus regressing $\log (X/L)$ on $\log (W/P)$, which is the usual method, gives far different results than regressing $\log (W/P)$ on $\log (X/L)$. The differences are actually quite striking. Using Monte Carlo methods, Maddala and Kadane (40) found that the simulated value of σ for a true value of $\sigma = 0.4$ could vary anywhere from 0.10 to 0.63 depending on which dependent variable was used and the assumptions about the residual variance-covariance matrix. For a true value of $\sigma = 1.6$, the simulated values ranged from 0.60 to 2.12. Thus the estimation of σ is peculiarly sensitive to the method of estimation used.

(2) The CES production function is usually written in terms of labor inputs. Thus theoretically one would expect the same estimate of σ from the equation

$$(20) \quad \log \left(\frac{X}{K} \right) = a' + \sigma' \log \left(\frac{r}{p} \right)$$

where

r = rental cost of capital

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However, estimates of σ derived from (16) and (20) give significantly different estimates, as found by Dhrymes (18) and Liu and Hildebrand (36). This probably suggests that σ varies with respect to various facets of L and K and hence is not constant at all.

This realization has led to a number of variants of the CES function, which are usually classified under the headline of VES (variable elasticity of substitution). A number of VES variants are summarized in Nadiri (51). All of these forms involve beginning with the basic function (16) and adding various terms. These extensions have taken three basic forms:

(a) Intertemporal changes: inputs do not adjust immediately to changes in output. This is the point which we have tried to stress in the main body of this report, and was in fact suggested at an early date. However, for reasons which are not immediately apparent, the empirical investigations of this contract have been rather puny in comparison to the mountains of work centered on trying to estimate "the" value of σ . The major developments have been as follows:

(i) Use of lagged values of (W/P) to distinguish between short- and long-run effects of adjustments to changes in output, much as lagged assumption is often contained in the consumption function. The lagged values of (W/P) can also be interpreted as a proxy for expected factor prices in the future. This is the approach used by Brown and De Cani (7) and Brown and Conrad (6).

(ii) Integration of short- and long-run production functions within the context of a dynamic structure emphasizing the cost of adjustment in moving from one level of production to the next. Firms are assumed to combine simultaneously the existing levels of input for production in the

current period and prepare for production in future periods. This approach amounts to maximizing the intertemporal profit function.

$$(20) \quad R = \int_0^{\infty} [F(X(t)) - C(X(t)) - B(dX(t))] e^{-rt} dt$$

where

R = present value of net receipts

F(X) = production function

C(X) = cost function

B(dX) = adjustment cost function that depends upon the rate of change of the inputs

r = discount rate

The first general mention of this approach appears to be by Eisner (22) in his comment to Solow's work (62); it follows his work distinguishing between temporary and permanent effects of changes in output and investment (23 , 24). The theoretical development of this approach has also been advanced by Nerlove (55) and Dhrymes (18); empirical testing has been attempted by Nadiri and Rosen (52). They found that adding the rate of capacity utilization improved the function significantly, a result which we also found important in our study.

(iii) A variant of this approach has been developed by Arrow (3) in his "learning by doing" model. This model assumes that productivity of labor is directly proportional to the familiarity of performing a given task. Arrow chooses as his example the manufacture of airplane frames, where the evidence of such an effect appears to be solid. However, this approach has not been extended on an empirical basis to estimation of production functions at the industry or aggregate level.

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(b) Use of both labor and capital in the production function. For example, the invariance of σ to capital intensity is tested by fitting the relation

$$(22) \quad \log \left(\frac{X}{L} \right) = \log a + b \log \left(\frac{W}{P} \right) + c \log \left(\frac{K}{L} \right)$$

This is the approach taken by Liu and Hildebrand (36). This function can be integrated to the form

$$(23) \quad \frac{X}{L} = \left[A \left(\frac{K}{L} \right)^{-\rho} + B \left(\frac{K}{L} \right)^{-m\rho} \right]^{-1/\rho}$$

where

$$A = \frac{-d(1-b)}{ba^{1/b}}$$

$$B = \frac{1-b}{(1-b-c) a^{1/b}}$$

$$\rho = \frac{1-b}{b}$$

$$m = \frac{c}{1-b}$$

d = constant of integration

A wide variety of other functions could easily be constructed, but this is the most usual formulation.

(c) Multi-factor production functions. As in the case of Cobb-Douglas, it is relatively straightforward to specify theoretically additional factors; however, it is not straightforward to estimate them, partly because even the two-factor CES function poses many estimation problems. The theoretical approach has been supplied by Hanoch (29) as

$$(24) \quad \log \left(\frac{X_i}{X_I} \right) = A + b_1 \log \left(\frac{W_1}{P} \right) - b_i \log \left(\frac{w_i}{P} \right)$$

where

X_i are factor inputs

W_i are factor prices

p is the product price

However, this function has not yet been empirically estimated.

An important contribution of a somewhat more restrictive nature has been offered by Brown and Conrad (6), in which they make all the parameters of the CES production function dependent upon education and research expenditures. The empirical results of their model show significant effects for these expenditures.

In spite of the great amount of theoretical and empirical research on the CES function, the question of whether $\sigma \neq 1$, and hence the more complicated form of the production function is justified, still remains very much in the air. There is, after all, no good reason why the extensions (a)-(c) of the CES function could not be applied to Cobb-Douglas as well. While the approximation given by Kmenta, allowing the CES function to be approximated linearly, is a useful one, it does serve to point out that in general two-step or nonlinear methods are required to estimate these equations. This poses several additional problems of specification; the problem is not, as Nerlove seems to think, one which can easily be overcome by the use of larger, faster, and more sophisticated computers. The work of Bodkin and Klein (5) in their nonlinear maximum likelihood estimates of CES functions reinforces what those who have worked with simultaneous equations have long come to realize: the greater the degree of simultaneity, the greater the dependence of the parameter estimates on initial specification of the model. The gain in elegance is left unsupported by the shaky empirical foundation.

In closing this brief review of the literature, it may be instructive to refer to Domar's comment (19) about Nerlove's long search for consistency among various CES estimates. Since all of Domar's comment is applicable, we quote it in full.

If it was found by Nelson, as quoted by Nerlove, that sizable changes in the elasticity of substitution produce very small effects on the other variables, it should follow that relatively small changes in the other variables should exert strong effects on the elasticity of substitution. The data being what they are, why is it surprising then that the magnitude of the elasticity of substitution derived in the several studies jumps all over the place?

Appendix B

Calculation of γ

One of the key elements in this study is the calculation of the time series for the rate of technological progress. As indicated on p. 49 of the main text, it is possible to develop a number of different series based on varying assumptions about full-capacity levels of output and employment.

We turn first to the actual series which we developed, as given in Table 3.1. As mentioned in the text on pp. 47-48, the series we used for $\Delta X/X$ was based on the CEA trend series, as given in Denison (16 , pg. 97) through 1971 and updated by us through 1974. We show the "gap" between actual and potential GNP using the CEA trend method; for purposes of comparison we also list the CEA series based on the unemployment rate and the Denison series, which we then discuss further.

Table 3.1

Measures of Potential GNP

	Actual GNP	CEA Trend			CEA Unemployment			Denison		
		Gap	Poten- tial	% Change	Gap	Poten- tial	% Change	Gap	Poten- tial	% Change
1954	407.0	-17.0	424.0	3.5	-20.2	427.2	6.7	-17.5	424.5	2.8
1955	438.0	- 0.8	438.8	3.5	- 5.5	443.5	3.8	0.6	437.4	3.0
1956	446.1	- 8.1	454.5	3.5	- 1.9	448.0	1.0	- 4.0	450.1	2.9
1957	452.5	-17.5	470.0	3.5	- 3.9	456.4	1.9	-10.9	463.4	3.0
1958	447.3	-39.1	486.4	3.5	-40.1	487.4	6.8	-30.8	478.1	3.2
1959	475.9	-27.6	503.5	3.5	-22.4	498.3	2.2	-13.3	489.2	2.3
1960	487.7	-33.4	521.1	3.5	-23.9	511.6	2.7	-20.2	507.9	3.2
1961	497.2	-42.1	539.3	3.5	-42.8	540.0	5.6	-27.3	524.5	3.3
1962	529.8	-28.4	558.2	3.5	-26.1	555.9	2.9	-12.4	542.2	3.4
1963	551.0	-27.6	578.6	3.6	-29.4	580.4	4.4	-12.1	563.1	3.9
1964	581.1	-19.2	600.3	3.7	-21.9	603.0	3.9	1.2	579.9	3.0
1965	617.8	- 5.0	622.8	3.8	-10.3	628.1	4.2	12.0	605.8	4.5
1966	658.1	11.0	647.1	3.9	4.4	653.7	4.1	19.1	639.0	5.5
1967	675.2	2.2	673.0	4.0	3.2	672.0	2.8	6.0	669.2	4.7
1968	706.6	6.7	699.9	4.0	9.5	697.1	3.7	4.9	701.7	4.9
1969	725.6	- 2.2	727.8	4.0	11.4	714.2	2.5	- 8.2	733.8	4.6
1970	722.5	-34.5	757.0	4.0	-21.7	744.2	4.2	-27.4	749.9	2.2
1971	746.3	-41.0	787.3	4.0	-45.9	792.2	6.4	-32.1	778.4	3.8
1972	792.5	-26.3	818.8	4.0	-42.8	835.3	5.4	-23.3	815.8	4.8
1973	839.2	-12.3	851.5	4.0	-27.7	866.9	3.8	-16.7	852.5	4.5
1974	821.2	-64.4	885.6	4.0	-44.3	865.5	-0.2	-66.3	887.5	4.1

All GNP figures are given in billions of 1958 dollars.

% change refers to the change in potential GNP for each category.

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We then use the calculated figures for $\frac{\Delta L}{L}$ and $\frac{\Delta K}{K}$ to obtain γ , using the formula

$$\gamma = \frac{\Delta X}{X} - 2/3 \frac{\Delta L}{L} - 1/3 \frac{\Delta K}{K}$$

When we use $\frac{\Delta X}{X}$ based on the CEA trend method, we obtain the series for γ given in Table 3.1 and use as the basis of our calculations throughout this study.

Since the methodology for this procedure is given in the text on pp. 43-49 and the supporting data are listed in Appendix E, it is not necessary to discuss this method further in this appendix.

The CEA series for potential GNP based on unemployment can be rejected out of hand because of the factors associated with (a) the "blow-up" procedure associated with multiplying either GNP or employment by $\frac{1}{1-u}$, and (b) the problems with the assumption that a 4% rate of unemployment still represents full employment. Thus we have not repeated the exercise for this series.

The Denison method is much more sophisticated and deserves further analysis. Denison makes allowances for increase in quality as well as quantity of labor; he also makes a number of adjustments to capital stock which we do not use in our calculations. In addition, Denison attempts to factor in adjustments due to economies of scale. Thus in determining his series for potential GNP, Denison takes into account seven factors, which can be grouped into two general classifications:

- 1) Factor inputs where the use of more labor and capital result in higher output.
- 2) Total output per unit of input where an increase in output is obtained from the same quantity of resources.

The remainder of this appendix is devoted to a description of Denison's sources of growth in more detail.

Factor Inputs

1. Number of employed persons and their demographic composition.

This item is used by Denison simply as a measure of the quantity of labor. The size of the population, its distribution by age and sex and the participation rate are all considered separately as factors affecting the magnitude of total employment.

2. Hours worked, including the proportion of self-employed workers.

Denison incorporates the basic assumption that hours worked by different groups contribute different average amounts to the value of output. Accordingly, he defines ten age-sex groups, each of which is analyzed separately. Denison uses earnings as weights -- a key assumption throughout his work -- which means he assumes that an average hour worked by one individual whose average hourly earnings are twice as high as another individual represents twice as much labor input. He finds that hours affect growth if they change as a result of:

- (a) change in the relative number of full- and part-time workers -- Denison finds a shift toward part-time employment.
- (b) change in the average hours of part-time workers.
- (c) change in the relative number of male and female workers. Female workers working an increased number of hours have a negative effect on the index because they traditionally have received lower earnings.

Based on the above three factors, hours have declined and have had a negative effect on growth. However, this finding is partially offset by two adjustments. An efficiency offset occurs when the decline in the number of hours

worked results in an increase or no decrease in productivity as a result of reduced fatigue and boredom. A second offsetting factor is referred to as the intergroup shift influence. A move from one labor force group to another may appear to reduce the aggregate number of hours worked. Yet a shift from farming, where long hours are recorded with low values of the marginal product of labor, to the manufacturing sector would not result in a decline in aggregate productivity but rather a structural shift in the labor force. Denison adjusts for this occurrence.

3. Education of employed persons.

Denison considers this variable to be one of the key determinants of economic growth; this index includes the kinds of work an individual performs and his proficiency as a result of education. Denison assigns different values of marginal products to individuals with different levels of education; once again marginal products are related to earnings.

Denison then calculates his index of labor input by multiplying employment times hours worked times an index of education. The growth in employment and the increasing education of the labor force result in an upward trend for this composite index.

4. Size of the capital stock.

Three types of capital stock are considered: inventories, nonresidential structures and equipment, and land. Denison points out that the measurement of capital stock is difficult; he uses the BEA estimates for his analysis, including the assumption of the Winfrey S-3 distribution for service lives. He also includes an additional adjustment for rising maintenance expenses and the deterioration of capital services with the passage of time. Land is assumed

to affect growth only if some improvement of quality can be recognized. Denison finds no significant changes in land quality over his sample period (1929-1969) so this component of the capital input index remains constant. His series does not take into account the extent of utilization of capital but rather only considers the amount of capital in place; our calculations also incorporate this assumption.

5. State of knowledge and economies of scale.

Denison finds that the advance in knowledge is the biggest and most basic reason for the persistent long-term growth of output per unit of output; the results of our study attempt to quantify his finding.

Economies of scale are considered in some detail. The growth of markets allegedly brings opportunities for greater specialization allowing two important efficiencies -- longer production runs for individual products and larger transactions. Both of these items determine unit cost, and by reducing unit cost yield increasing returns. However, Denison admits he is not sure whether this factor should be measured separately or combined with the other determinants of growth.

6. Improved resource allocation.

Two fundamental misallocations of labor have traditionally existed but are gradually being corrected. A declining demand for farm workers has led to the movement of these workers to more efficient occupations. A similar movement causing an improvement in resource allocation has resulted from the shift of underutilized nonfarm self-employed workers to fully utilized positions as employees.

7. Irregular fluctuations.

Three different irregular components exist.

(a) Irregular fluctuations in farm output from factors such as weather. However, over the sample period the effects of this component have not been significantly different from zero.

(b) Work stoppages due to labor disputes has also had a negligible effect on long-term patterns of growth.

(c) Fluctuations in demand are by far the most important of the irregular components, since business cycle fluctuations strongly influence productivity. However, all the series we have used for potential GNP have attempted to adjust fully for this effect.

Appendix C

Calculation of the Industry Mix Variable

As stated on page 55, the industry mix variable is defined in this study as

$$IM_t = \sum_{i=1}^N \omega_{it} \frac{(XIP_i)}{(XIP_m)}_t$$

where

IM_t = industry mix variable at time t

ω_{it} = average level of productivity (output/man-hour) for each of i industries in the t^{th} year

$XIP_{i,t}$ = index of industrial production for the i^{th} industry in year t , 1967=100.0

$XIP_{m,t}$ = index of industrial production for the manufacturing sector in year t , 1967=100.0

The actual data used for ω_i and XIP for each two-digit industry (with SIC 37 split into automotive and other transportation equipment) for 1955 to 1974 are shown in the following tables.

The two digit industry codes are as follows:

SIC 20	Food and kindred products
21	Tobacco manufactures
22	Textile mill products
23	Apparel and other fabricated textile products
24	Lumber and wood products, except furniture
25	Furniture and fixtures
26	Paper and allied products
27	Printing, publishing, and allied industries
28	Chemicals and allied products
29	Petroleum refining and related industries
30	Rubber and miscellaneous plastic products
31	Leather and leather products
32	Stone, clay, and glass products
33	Primary metal industries
34	Fabricated metal products
35	Machinery, except electrical
36	Electrical machinery
371	Motor vehicles and motor vehicle equipment
373	Transportation equipment and ordnance, except motor vehicles
38	Instruments
39	Miscellaneous manufacturing industries

Table C.1 - Values of ω_{it}

Productivity	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
1955	36	73	16	13	18	17	28	15	28	79	19	14	22	41	23	23	17	49	21	16	13
1956	38	76	16	14	18	17	27	15	29	84	18	14	23	40	23	23	17	47	21	16	14
1957	39	80	17	15	19	17	27	15	29	84	18	14	21	38	23	22	17	50	24	16	14
1958	44	89	18	15	21	17	28	16	31	93	21	15	22	37	27	24	18	48	23	17	16
1959	45	94	19	14	21	17	29	17	34	102	22	14	23	40	27	24	18	52	24	18	16
1960	47	98	19	15	22	17	29	17	34	103	23	14	23	39	27	24	19	58	24	18	17
1961	48	105	20	15	24	17	30	17	35	108	24	14	24	41	27	24	19	59	26	18	18
1962	49	106	21	15	24	18	31	18	37	114	24	14	24	42	28	25	20	66	26	18	18
1963	51	108	22	16	25	18	32	18	39	124	25	15	25	43	29	27	22	64	26	20	19
1964	54	109	23	17	26	19	33	19	42	136	26	15	26	43	30	28	23	65	28	21	20
1965	53	113	24	17	26	19	34	19	44	136	26	15	27	45	31	28	25	69	29	22	20
1966	53	113	24	17	26	19	35	20	45	139	26	15	27	46	32	29	25	69	28	22	20
1967	57	111	26	16	29	19	34	20	45	143	28	16	28	45	33	30	26	67	30	24	21
1968	59	114	26	16	29	20	36	21	47	154	28	16	29	47	34	31	26	71	31	25	22
1969	59	121	27	17	28	20	37	21	49	162	30	16	29	46	33	31	27	71	31	26	23
1970	60	119	29	17	30	20	37	21	49	160	29	16	29	45	32	32	27	65	31	26	24
1971	64	132	30	18	30	21	38	21	53	165	31	16	30	46	34	33	29	75	33	29	25
1972	65	156	36	19	33	22	40	22	60	174	32	18	32	47	35	35	33	80	38	30	26
1973	66	152	36	19	35	23	41	23	61	197	33	19	33	48	35	37	32	83	37	32	28
1974	64	150	35	18	32	22	39	23	59	203	33	18	31	46	34	37	32	77	35	21	27

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Table C.2 - Values of XIP_i and XIP_m

<u>DATE</u>	<u>XIP20</u>	<u>XIP21</u>	<u>XIP22</u>	<u>XIP23</u>	<u>XIP24</u>	<u>XIP25</u>	<u>XIP26</u>	<u>XIP27</u>	<u>XIP28</u>	<u>XIP29</u>	<u>XIP30</u>
1/54	62.4	71.6	57.9	66.6	67.6	56.9	50.3	53.6	31.9	60.4	35.2
1/55	66.0	73.6	66.0	73.5	75.5	66.2	56.6	59.0	37.3	65.5	42.9
1/56	69.8	75.1	67.7	75.2	74.5	68.8	60.0	62.7	40.0	69.5	42.8
1/57	70.9	78.6	64.6	75.0	68.4	68.8	59.0	64.9	42.3	69.9	45.6
1/58	72.7	84.7	63.7	73.0	69.6	64.9	59.4	63.3	43.6	69.9	44.7
1/59	76.2	88.6	72.1	80.3	79.2	72.6	66.5	67.6	50.9	74.1	53.7
1/60	78.4	90.4	70.7	81.9	74.3	71.9	67.9	70.4	52.8	77.5	54.5
1/61	80.6	93.3	72.8	82.4	77.6	70.5	71.7	70.7	55.5	79.7	56.8
1/62	83.1	94.4	77.7	85.8	82.0	77.6	76.0	73.3	61.6	84.0	64.4
1/63	86.1	97.3	80.5	89.3	85.8	80.6	80.5	77.1	67.3	87.8	69.2
1/64	89.7	101.2	87.1	93.8	90.9	85.9	85.9	83.6	73.9	90.8	74.4
1/65	91.9	100.3	95.4	98.4	94.7	93.1	92.2	89.4	82.1	93.0	84.0
1/66	96.7	100.1	101.6	100.7	98.4	101.1	100.3	98.0	92.8	96.8	97.0
1/67	100.0	100.0	100.0	100.0	99.9	100.0	99.9	99.9	100.0	100.0	99.8
1/68	103.8	100.2	108.8	101.5	104.8	105.4	106.0	102.9	109.9	104.7	112.5
1/69	108.2	96.7	113.3	102.5	108.7	107.5	114.3	105.7	120.4	108.4	119.6
1/70	111.7	100.1	106.3	97.8	106.4	99.4	113.3	104.1	120.2	112.7	115.8
1/71	114.9	97.7	108.3	97.9	114.0	102.2	115.8	102.5	126.2	115.7	125.9
1/72	118.6	103.6	117.4	105.6	122.4	113.5	128.2	107.9	139.6	120.6	145.6
1/73	122.5	110.6	128.3	113.3	127.6	125.8	135.1	113.2	150.4	127.4	163.8
1/74	126.2	107.1	122.0	105.7	119.6	127.0	133.3	111.9	154.4	124.0	163.3

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(Cont'd)

<u>DATE</u>	<u>XIP31</u>	<u>XIP32</u>	<u>XIP33</u>	<u>XIP34</u>	<u>XIP35</u>	<u>XIP36</u>	<u>XIP371</u>	<u>XIP373</u>	<u>XIP38</u>	<u>XIP39</u>	<u>XIPM</u>
1/54	90.2	62.4	65.1	59.9	45.3	38.0	65.8	50.4	39.6	50.9	51.5
1/55	99.0	72.2	84.8	68.3	49.7	43.7	88.8	50.4	44.2	65.1	58.2
1/56	100.0	76.4	83.4	69.3	56.9	47.2	71.4	57.4	48.5	68.4	60.5
1/57	98.7	76.3	80.6	71.1	56.8	46.9	75.4	62.4	50.7	65.5	61.2
1/58	97.2	72.4	64.4	63.7	47.7	42.9	55.1	51.9	47.6	59.5	56.9
1/59	103.8	84.1	73.2	71.5	55.7	52.2	72.4	52.4	55.2	65.4	64.1
1/60	98.6	81.2	73.8	71.6	55.9	56.6	81.4	49.8	57.9	67.9	65.4
1/61	98.0	80.7	73.6	69.8	54.4	60.1	71.8	50.2	57.3	70.2	65.6
1/62	100.9	85.7	77.9	75.9	60.9	69.0	87.2	55.2	59.8	74.8	71.4
1/63	99.3	90.8	84.2	78.4	65.1	71.0	96.4	59.8	66.4	78.3	75.8
1/64	100.8	95.9	95.9	83.2	75.7	72.8	100.3	63.4	71.3	83.4	81.2
1/65	103.5	101.2	103.9	92.6	84.7	83.3	117.4	70.7	82.8	94.1	89.1
1/66	104.9	105.3	108.9	100.6	99.7	97.5	114.2	89.7	95.2	100.4	98.3
1/67	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0
1/68	105.5	105.9	103.0	106.3	100.6	103.3	117.6	101.9	106.6	106.9	105.7
1/69	96.0	112.6	114.2	113.6	106.0	107.7	115.7	100.2	116.1	115.4	110.5
1/70	90.9	106.4	106.9	109.5	100.5	100.1	97.8	84.1	110.8	117.4	105.2
1/71	87.4	110.0	100.6	107.5	94.3	98.4	114.2	72.6	108.5	120.5	105.2
1/72	88.9	118.6	113.3	114.8	105.7	109.5	123.1	75.8	120.1	130.9	114.0
1/73	83.6	129.7	126.5	130.6	125.1	126.6	137.8	81.2	138.3	143.4	125.1
1/74	77.4	125.8	123.5	130.5	133.0	125.3	112.9	81.2	143.9	144.5	124.5

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Appendix D

Estimation of Distributed Lags *

All distributed lag equations state that a dependent variable, Y, is determined by a weighted sum of past values of an independent variable, X:

$$(1) \quad Y_t = \sum_{i=0}^n w(i)X_{t-i}$$

If n, the number of relevant values of X is small, and if these successive past observations are not collinear, then the w(i), the weights with which the several present and past values are combined, can be estimated directly by least squares. When n is large, however, or when successive observations are too collinear for this straightforward treatment, it becomes necessary to make some reasonable, restrictive assumption about the pattern of the weights. The purpose of the Almon lag procedure is to choose a set of assumptions which makes the individual lag coefficients depend on a few parameters, which in turn can be estimated in some reasonably simple way.

The "interpolation distribution" assumes that the w(i) are values at x=0, ..., n of a polynomial w(x) of degree q+1, q<n, where n is the number of periods over which the distributed lag extends. Its estimation is based on the fact that once q+2 points on the curve are known -- w(x₀)=b₀, w(x₁)=b₁, ..., w(x_{q+1})=b_{q+1} -- all the w(i) can be calculated as linear combinations of these known values by

$$(2) \quad w(i) = \sum_{j=0}^{q+1} a_j(i)b_j \quad (i=0, \dots, n-1)$$

where the a_j(i) are the values of x=i of the Lagrangian interpolation polynomials.

* This treatment follows Shirley Almon (2). As a result the use of Lagrangian interpolation polynomials in econometrics are usually referred to as Almon lags.

$$a_0(x) = \frac{(x-x_1)(x-x_2)\dots(x-x_{q+1})}{(x_0-x_1)(x_0-x_2)\dots(x_0-x_{q+1})},$$

$$a_1(x) = \frac{(x-x_0)(x-x_2)\dots(x-x_{q+1})}{(x_1-x_0)(x_1-x_2)\dots(x_1-x_{q+1})},$$

$$a_{q+1}(x) = \frac{(x-x_0)(x-x_1)\dots(x-x_q)}{(x_{q+1}-x_0)(x_{q+1}-x_1)\dots(x_{q+1}-x_q)}.$$

Note that these polynomials have the property that

$$a_j(x_j) = 1 \quad (j=0, \dots, q+1),$$

$$a_j(x_k) = 0 \quad (j \neq k; j=0, \dots, q+1; k=0, \dots, q+1),$$

Thus

$$w(x) = \sum_{j=0}^{q+1} a_j(x)b_j$$

is indeed a polynomial of degree $q+1$ having the values b_j at the points x_j as required. Hence equation (2) is justified. Since we shall always want $w(-1)=w(n)=0$, i.e., zero weights before time 0 and after time $n-1$, we may take $x_0 = -1$, $x_{q+1} = n$, and $b_0 = b_{q+1} = 0$. Then equation (2) simplifies to

$$(3) \quad w(i) = \sum_{j=1}^q a_j(i)b_j.$$

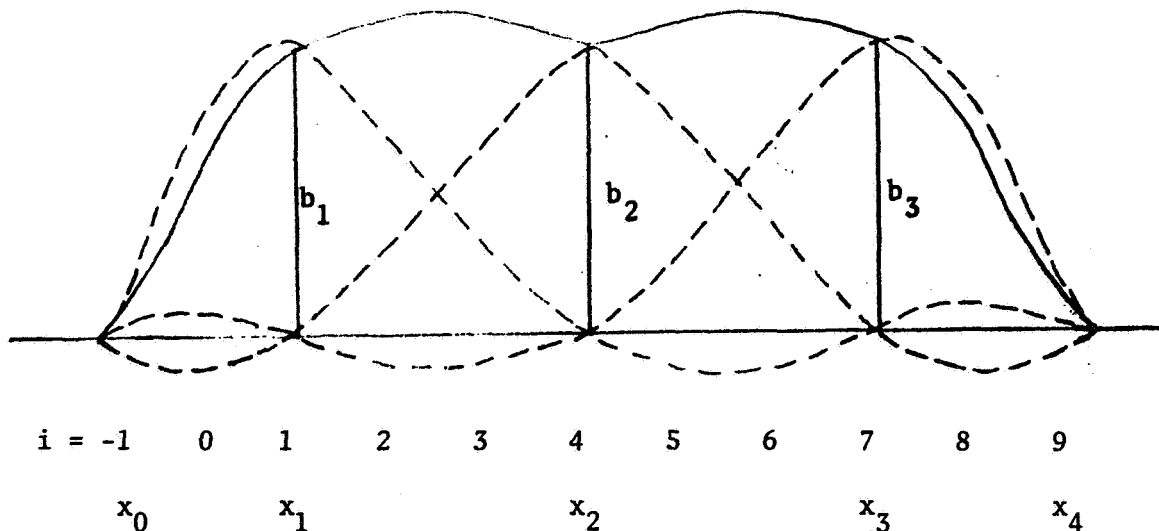


FIGURE 1. -- Example of Lagrangian Interpolation

Figure 1 shows with dashed lines an example of the $a_j(x)$ for $q=3$, $n=9$, and $x_0 = -1$, $x_1=1$, $x_2=4$, $x_3=7$, $x_4=9$, assuming that $b_1=b_2=b_3$. The interpolated polynomial $w(x)$, computed from (3), is drawn with a solid line.

Substituting (3) into (1) gives

$$(4) \quad Y_t = \sum_{i=0}^n \sum_{j=1}^q a_j(i)b_j X_{t-i} = \sum_{j=1}^q b_j \sum_{i=0}^n a_j(i)X_{t-i}.$$

The b_j can now be estimated by simply regressing the Y_t on the q variables

$$z_{tj} = \sum_{i=0}^n a_j(i)X_{t-i}, \quad j=1, \dots, q.$$

The distributed lag weights are then calculated from (3). Another distributed lag or unlagged variables could be included in (4).

The Lagrangian interpolation polynomials can be utilized for both equal and unequally spaced intervals of the X_i , but econometric usage has been restricted to the case of equally spaced intervals. It makes no difference where in the interval $(0,n)$ the parameter points X_i are located, since within this interval there can be only one polynomial of degree $(q+1)$ which minimizes the sum of squares. The parameter points do not need to be integers, and in general they will not be. For example, if $n=13$, it would not be possible to choose any points X_i with equally spaced intervals which would be integers.

Various standard regression programs are then available which perform the following steps:

(a) Calculate the Lagrangian interpolation coefficients $a_j(i)$ as indicated above

(b) Compute
$$z_t = \sum_{i=0}^n a_j(i)X_{t-i} \text{ for all } t \geq n \text{ and } j = 1, \dots, q$$

This transformation of the independent variable expands it into q variables and reduces the number of time series observations by n .

(c) Use multiple regression techniques to estimate the b_j for

$$Y_t = \sum_{j=1}^q b_j Z_{tj} + u_t$$

(d) Use the equation $w(i) = \sum_{j=1}^q a_j(i)b_j$ to compute $w(i)$, $i=0, 1, \dots, n-1$

(e) The standard errors of the distributed lag weights, combining both variances and covariances of the estimated regression coefficients, are calculated by

$$S_i^2 = B_i \sigma^2 (Z'Z)^{-1} B_i'$$

where $B_i = (b_1(i), \dots, b_q(i))$ and $\sigma^2 (Z'Z)^{-1}$ is the variance-covariance matrix of b_j .

The researcher must now exercise his option in choosing the beginning and ending points of the distribution and the degree of the polynomial.

(a) The beginning point is usually set equal to either the current time period or a lag of one period. However, in this study, we have used a lag of two years before beginning the distribution on the R & D terms. The choice of beginning point is usually based on a priori information.

(b) The choice of ending point is strictly empirical in nature. Theory does not tell us exactly how much time elapses until the total or cumulative effect of one economic variable on another is felt. Thus the normal procedure is to start with a fairly small n and continue to add terms one at a time. In general this process is halted when (i) the n^{th} term carries the opposite sign suggested by a priori information or (ii) the n^{th} term fails to improve the explanatory power of the equation.

(c) No theoretical reason exists why one need choose any particular $q < n$. However, the whole purpose of this exercise is to choose a low-order polynomial to reduce multicollinearity. Thus for practical purposes we generally choose a quadratic; sometimes a cubic is used, but rarely a polynomial of higher order. Even with $q=2$ or 3 the formulas may produce "wiggles" where none really exist in the true specification. The use of the Almon lag technique does not guarantee success; many examples exist where the fit of the equation is worsened by substituting an Almon lag for a simple weighted average. Thus these formulas must be applied with a modicum of care.

Appendix E

Estimation of the Equations for γ

<u>Date</u>	<u>AB</u>	<u>ABXCP</u>	<u>B</u>	<u>BB</u>	<u>CP</u>	<u>GNPP</u>	<u>GNPPUN</u>
1956	-	.00	2.86	0.85	85.88	454.95	447.90
1957	-	.00	3.82	0.98	83.00	470.83	456.40
1958	-	.00	5.66	1.16	76.70	487.22	487.40
1959	-	.00	4.14	1.42	84.02	504.15	498.40
1960	.00	.00	4.53	1.72	83.20	521.68	511.60
1961	.00	.00	4.89	1.93	82.00	539.80	540.00
1962	.00	.04	3.75	2.17	85.96	558.53	555.80
1963	.04	.12	3.19	2.27	88.04	578.88	580.40
1964	.04	.28	2.50	2.21	90.37	600.58	602.90
1965	.08	.60	1.85	2.00	92.45	623.08	628.10
1966	.12	1.04	1.62	1.80	93.23	647.30	653.70
1967	.16	1.56	2.62	1.51	89.07	673.03	672.00
1968	.20	2.08	2.53	1.24	89.54	699.88	697.20
1969	.20	2.48	2.65	1.12	89.00	727.88	714.20
1970	.24	2.60	4.07	1.09	82.92	757.03	744.15
1971	.24	2.52	4.09	1.19	82.40	787.30	792.20
1972	.24	2.28	2.98	1.39	87.00	818.80	823.90
1973	.24	1.96	1.94	1.58	91.10	851.55	856.90
1974	.24	1.60	2.88	1.63	86.48	885.60	891.10

AB: Almon weighted lag distribution of NASA R & D as a proportion of GNP in 1958 dollars adjusted for the nonlinear effects of capacity utilization

ABXCP: Almon weighted lag distribution of NASA R & D as a proportion of GNP in 1958 dollars without adjustment for capacity utilization

B: Other R & D (excluding NASA R & D) as a proportion of GNP in 1958 dollars adjusted for the nonlinear effects of capacity utilization

BB: Almon weighted lag distribution of other R & D as a proportion of GNP in 1958 dollars adjusted for the nonlinear effects of capacity utilization

CP: Chase Econometrics index of capacity utilization, %

GNPP: Potential GNP calculation based on trend. Used in Chase Econometrics calculation of γ

GNPPUN: Potential GNP calculation based on a 4% unemployment rate, 1971-1974, estimated by Chase Econometrics

NOTE: The Almon weights used in calculating the series shown are not normalized. They are: $.0304(t-1) + .0808(t-2) + .1091(t-3) + .1151(t-4) + .0989(t-5) + .0606(t-6)$

Appendix E (Cont'd)

Estimation of the Equations for γ

<u>Date</u>	<u>IAS</u>	<u>IE</u>	<u>IM</u>	<u>K</u>	<u>KPM</u>	<u>KPO</u>
1/56	99.00	107.10	902.77	1153.98	255.38	446.00
1/57	99.10	108.20	904.78	1219.44	272.43	466.79
1/58	99.10	109.20	938.41	1254.15	275.92	477.82
1/59	99.30	110.30	925.11	1270.78	269.88	486.40
1/60	99.30	111.40	929.94	1300.99	272.70	497.68
1/61	99.40	112.40	943.50	1328.59	275.55	506.27
1/62	99.60	113.40	927.84	1358.27	278.03	518.18
1/63	99.70	114.50	923.86	1391.68	283.13	531.73
1/64	99.90	115.50	907.54	1442.75	295.38	553.42
1/65	99.90	116.50	891.96	1514.60	317.18	580.25
1/66	99.90	117.60	869.89	1614.58	349.53	615.93
1/67	100.00	118.70	866.68	1709.20	381.55	651.73
1/68	100.10	119.70	869.46	1788.02	401.92	686.75
1/69	100.10	120.20	861.44	1869.60	421.85	721.98
1/70	100.20	119.10	879.08	1953.29	439.20	758.78
1/71	100.50	118.70	898.50	2002.48	444.07	792.77
1/72	100.60	121.40	895.99	2060.06	444.78	832.51
1/73	100.70	126.40	882.77	2133.09	455.74	875.07
1/74	100.80	131.90	874.18	2215.56	477.49	912.83

IAS: Index of quality as affected by age-sex composition

IE: Index of quality as affected by education

IM: Industry mix variable (defined in Appendix C)

K: Total capital stock, billions of 1958 dollars

KPM: Stock of fixed business investment in manufacturing sector, billions of 1958 dollars

KPO: Stock of fixed business investment in nonmanufacturing sector, billions of 1958 dollars

Appendix E (Cont'd)

Estimation of the Equations for γ

<u>Date</u>	<u>KPS</u>	<u>L</u>	<u>EGC</u>	<u>EGM</u>	<u>LC</u>	<u>LM</u>
1/56	452.61	60.54	7.25	2.86	3.49	19.07
1/57	480.23	61.10	7.59	2.80	3.45	19.08
1/58	500.41	60.85	7.81	2.64	3.38	18.42
1/59	514.50	62.04	8.06	2.55	3.55	18.68
1/60	530.62	63.10	8.33	2.51	3.48	18.85
1/61	546.78	63.65	8.58	2.57	3.46	18.57
1/62	562.07	64.84	8.88	2.83	3.49	18.82
1/63	576.83	66.05	9.21	2.74	3.55	18.96
1/64	593.96	67.51	9.59	2.74	3.59	19.13
1/65	617.18	69.67	10.06	2.72	3.72	19.80
1/66	649.13	72.92	10.77	3.12	3.75	20.90
1/67	675.92	75.34	11.38	3.45	3.65	21.28
1/68	699.35	77.46	11.84	3.53	3.74	21.54
1/69	725.78	80.10	12.20	3.51	3.95	21.98
1/70	748.08	81.48	12.56	3.19	4.11	21.58
1/71	765.64	82.18	12.88	2.82	4.25	20.94
1/72	782.77	84.27	13.34	2.45	4.48	21.26
1/73	802.28	86.97	13.74	2.33	4.65	22.06
1/74	825.61	88.99	14.28	2.23	4.68	22.33

KPS: Stock of nonresidential structures, billions of 1958 dollars

L: Maximum available labor force, millions

EGC: Government civilian employment, millions

EGM: Military employment

LC: Maximum available labor force in construction industries, millions

LM: Maximum available labor force in manufacturing industries, millions

Appendix E (Cont'd)

Estimation of the Equations for γ

Date	LNC	MRRD	NASARD	NGNPCP	NRDCON	NRD
1/56	27.86	1594.00	0.00	.00	0.00	0.00
1/57	28.18	1714.00	0.00	.00	0.00	0.00
1/58	28.60	2028.60	0.00	.00	0.00	0.00
1/59	29.20	2595.20	0.00	.00	0.00	0.00
1/60	29.93	3502.20	145.20	.049	140.56	0.29
1/61	30.48	4516.60	371.60	.130	355.24	0.72
1/62	30.83	5640.00	711.60	.180	672.60	1.28
1/63	31.59	6698.60	1622.00	.330	1513.40	2.76
1/64	32.47	6628.60	2812.40	.428	2588.72	4.44
1/65	33.37	6247.60	3651.20	.402	3293.84	5.32
1/66	34.38	6709.60	4363.20	.393	3829.04	5.80
1/67	35.58	7453.60	4614.00	.634	3924.32	5.80
1/68	36.80	7602.20	4216.40	.510	3448.16	4.88
1/69	38.46	7311.60	3738.00	.440	2915.68	4.00
1/70	40.04	7234.60	3261.20	.567	2411.24	3.32
1/71	41.29	7592.20	2810.80	.472	1988.80	2.68
1/72	42.74	8019.20	2626.40	.296	1797.72	2.28
1/73	44.20	8369.60	2459.60	.167	1594.16	1.88
1/74	45.47	8582.00	2327.60	.227	1367.32	1.68

LNC: Maximum available labor force in nonmanufacturing, nonconstruction industries, millions

MRRD: Total military R & D, millions of current dollars

NASARD: NASA R & D, millions of current dollars

NGNPCP: NASA R & D as a percentage of GNP in 1958 dollars adjusted for nonlinear effects of capacity utilization

NRDCON: NASA R & D, millions of 1958 dollars

NRD: NASA R & D as a proportion of actual GNP in 1958 dollars ($\frac{\text{millions}}{\text{billions}}$)

Appendix E (Cont'd)

Estimation of the Equations for γ

<u>Date</u>	<u>OMHMAX</u>	<u>ORDCON</u>	<u>ORD</u>	<u>OTHRD</u>	<u>TOTRD</u>	<u>X</u>	<u>X2</u>
1/56	1.90	9024.47	20.23	8483.00	8483.00	-0.27	-0.25
1/57	1.90	10166.15	22.47	9912.00	9912.00	-0.24	0.98
1/58	1.90	10858.14	24.27	10850.00	10850.00	2.00	2.81
1/59	1.90	12316.77	25.88	12520.00	12520.00	0.75	1.73
1/60	2.90	13150.82	26.96	13584.80	13730.00	1.51	1.54
1/61	2.90	13507.07	27.17	14128.40	14500.00	1.96	2.19
1/62	2.90	14133.65	26.68	14953.40	15665.00	0.50	1.48
1/63	3.13	14694.66	26.67	15749.00	17371.00	1.73	1.58
1/64	3.70	15068.99	25.94	16402.60	19215.00	0.40	1.04
1/65	2.92	15144.61	24.51	16787.80	20439.00	1.14	-0.05
1/66	3.47	15711.10	23.87	17902.80	22266.00	0.53	-1.42
1/67	2.13	16183.71	23.97	19028.00	23642.00	-0.32	-0.19
1/68	2.13	17094.05	24.19	20902.60	25119.00	0.76	0.57
1/69	1.92	17496.54	24.11	22431.00	26169.00	0.59	0.21
1/70	1.92	17215.38	23.83	23283.80	26545.00	-0.44	1.36
1/71	1.92	17352.84	23.25	24525.20	27336.00	2.34	2.58
1/72	1.92	18194.43	22.96	26581.60	29208.00	2.21	1.35
1/73	2.35	18258.09	21.76	28170.40	30630.00	1.23	0.68
1/74	2.00	17489.26	21.30	29772.40	32100.00	1.17	1.16

OMHMAX: Maximum productivity

ORDCON: Total R & D excluding NASA R & D, millions of 1958 dollars

ORD: Total R & D excluding NASA R & D as a ratio to real GNP in 1958 dollars

OTHRD: Total R & D excluding NASA R & D, millions of current dollars

TOTRD: Total R & D, millions of current dollars

X: Denison's gamma

X2: Chase Econometrics trend series for gamma

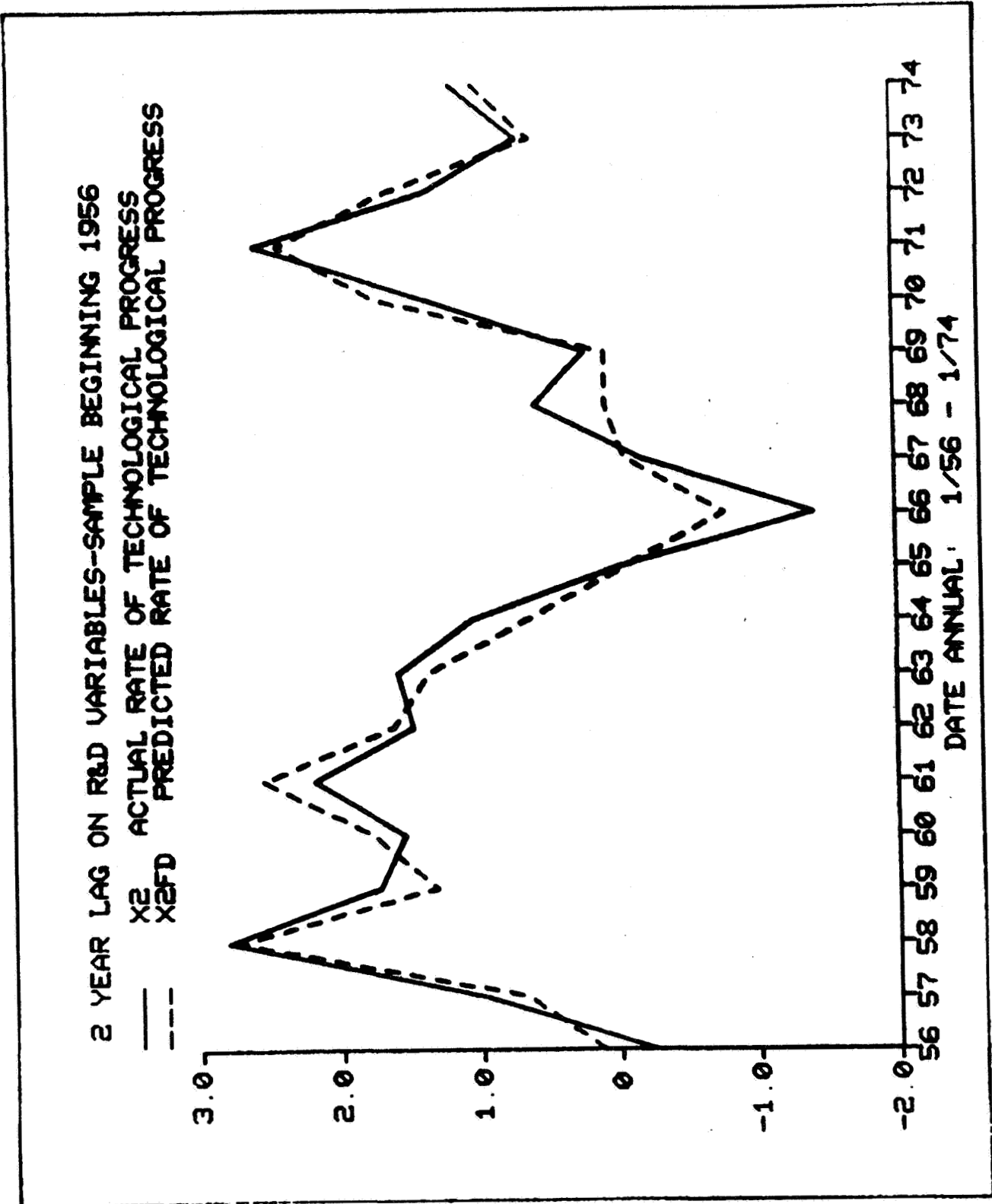
$$\gamma = -0.71 + 0.318 \sum_{i=0}^7 A_i (\text{NRD})_{-i} + 0.046 \sum_{i=0}^7 A_i (\text{ORD})_{-i} \frac{(1-\text{Cp})}{(1-\overline{\text{Cp}})} + 0.029 (\text{IM}-\overline{\text{IM}}) - 0.158 (\text{Cp}-\overline{\text{Cp}}) \quad (3.7)$$

(5.4)

(2.4)

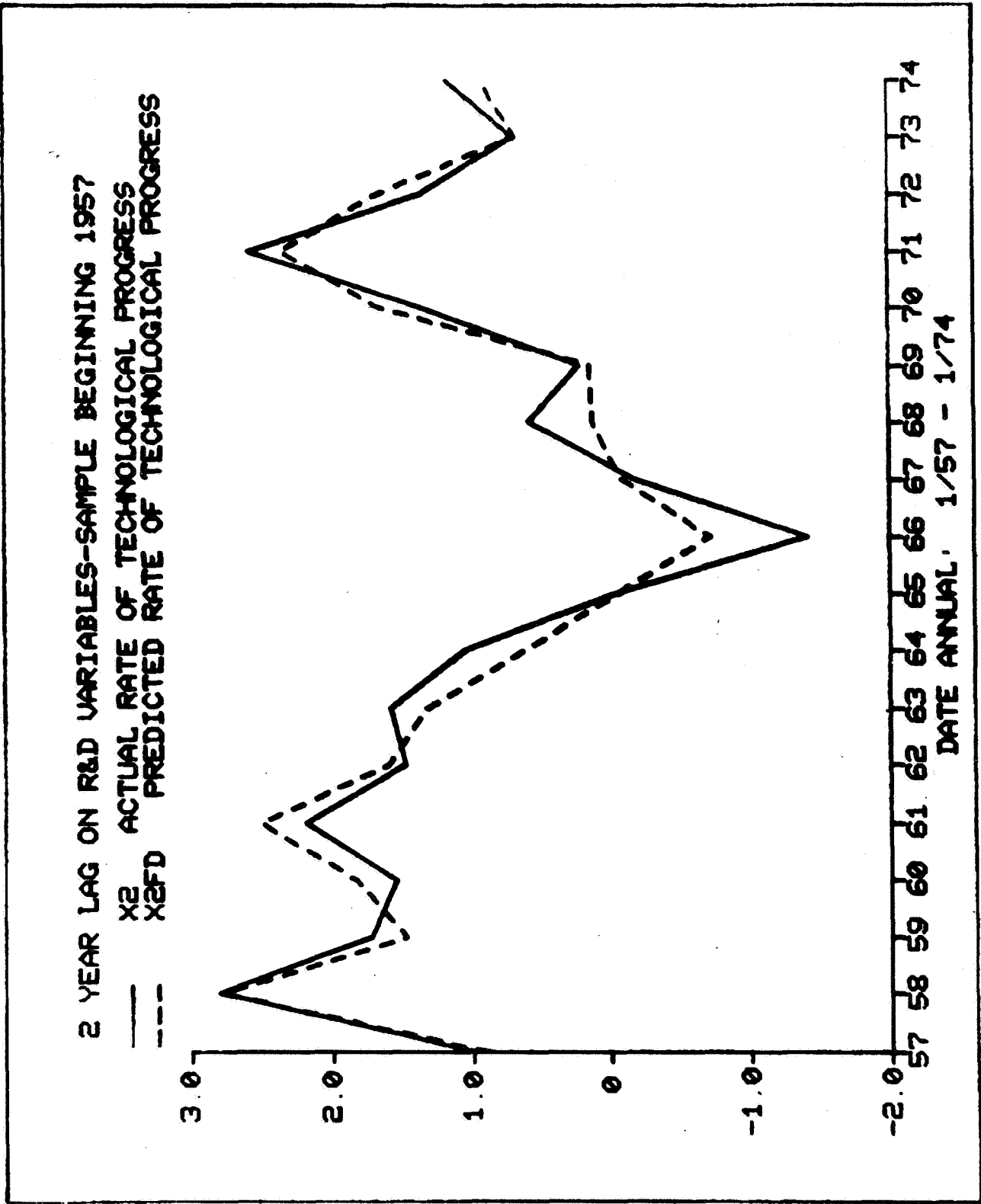
(4.3)

$\bar{R}^2 = 0.883$
DW = 1.94



$$\gamma = 0.19 + 0.283 \sum_{i=0}^7 A_i (\text{NRD})_{-i} + 0.026 \sum_{i=0}^7 A_i (\text{ORD})_{-i} \frac{(1-C_p)}{(1-\bar{C}_p)} + 0.030 (\text{IM}-\bar{\text{IM}}) \quad (4.6) \quad (1.1) \quad (4.6) \quad (3.1)$$

$$- 0.134 (\text{C}_p - \bar{\text{C}}_p) \quad (3.1) \quad \bar{R}^2 = 0.888 \quad \text{DW} = 1.89$$

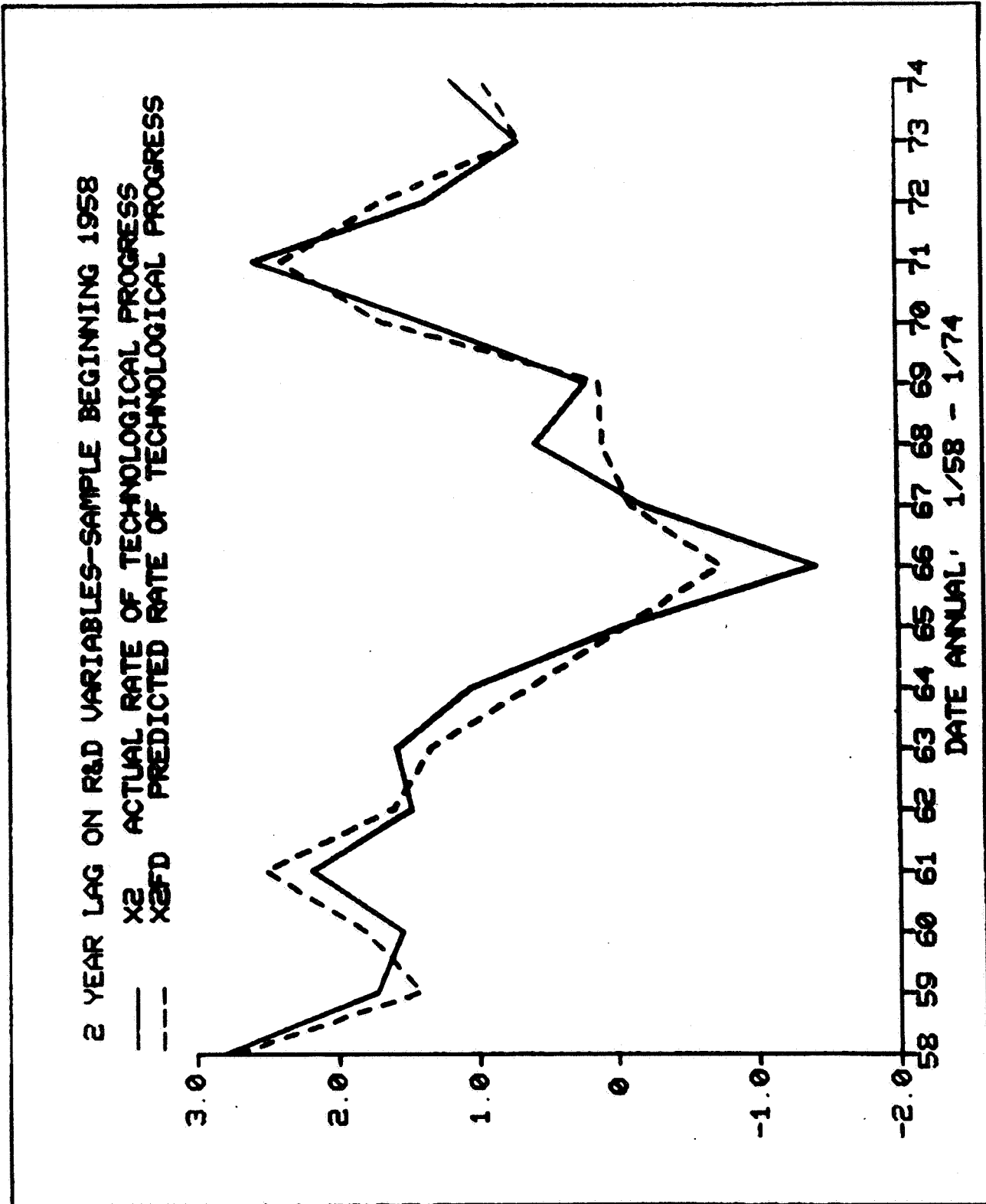


$$\gamma = -0.49 + 0.299 \sum_{i=0}^7 A_i (\text{NRD})_{-i} + 0.031 \sum_{i=0}^7 A_i (\text{ORD})_{-i} \frac{(1-C_p)}{(1-C_p)} + 0.030 (\text{IM}-\overline{\text{IM}})$$

(3.8)
(1.1)
(4.4)

- 0.137 (Cp-Cp)
(3.0)

$\overline{R}^2 = 0.887$
DW = 1.89



E-9

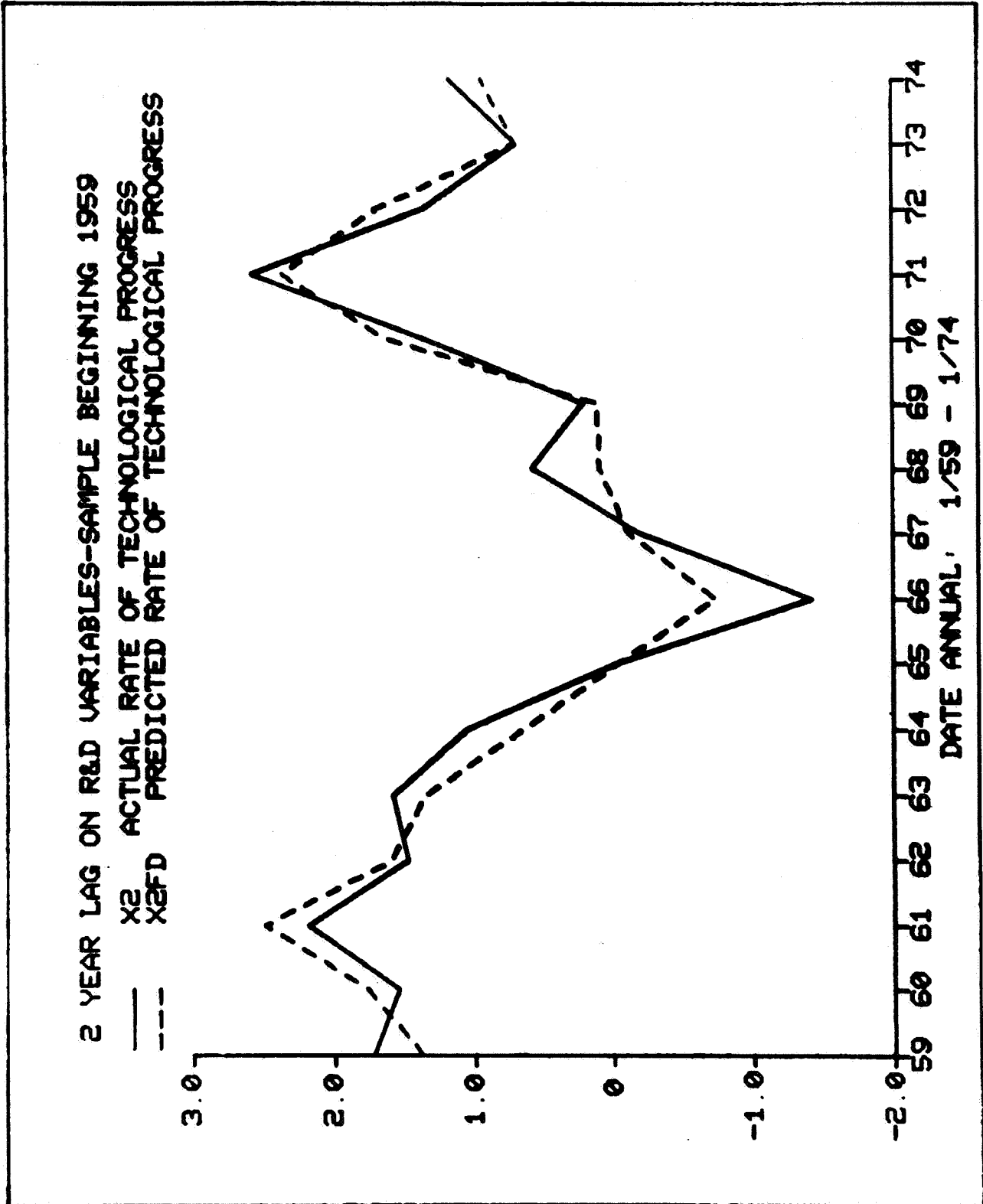
$$\gamma = -0.25 + 0.312 \sum_{i=0}^7 A_i (\text{NRD})_{-i} + 0.031 \sum_{i=0}^7 A_i (\text{ORD})_{-i} \frac{(1-\text{Cp})}{(1-\text{Cp})} + 0.031 (\text{IM}-\overline{\text{IM}}) \quad (3.5)$$

$$\quad \quad \quad (1.1) \quad \quad \quad (4.1)$$

$$- 0.131 (\text{Cp}-\overline{\text{Cp}}) \quad (2.6)$$

$$\overline{R^2} = 0.861$$

$$\text{DW} = 1.87$$



$$\gamma = -1.80 + 0.426 \sum_{i=0}^7 A_i (\text{NRD})_{-i} + 0.074 \sum_{i=0}^7 A_i (\text{ORD})_{-i} \frac{(1-\text{Cp})}{(1-\overline{\text{Cp}})} + 0.031 (\text{IM}-\overline{\text{IM}})$$

(3.9)

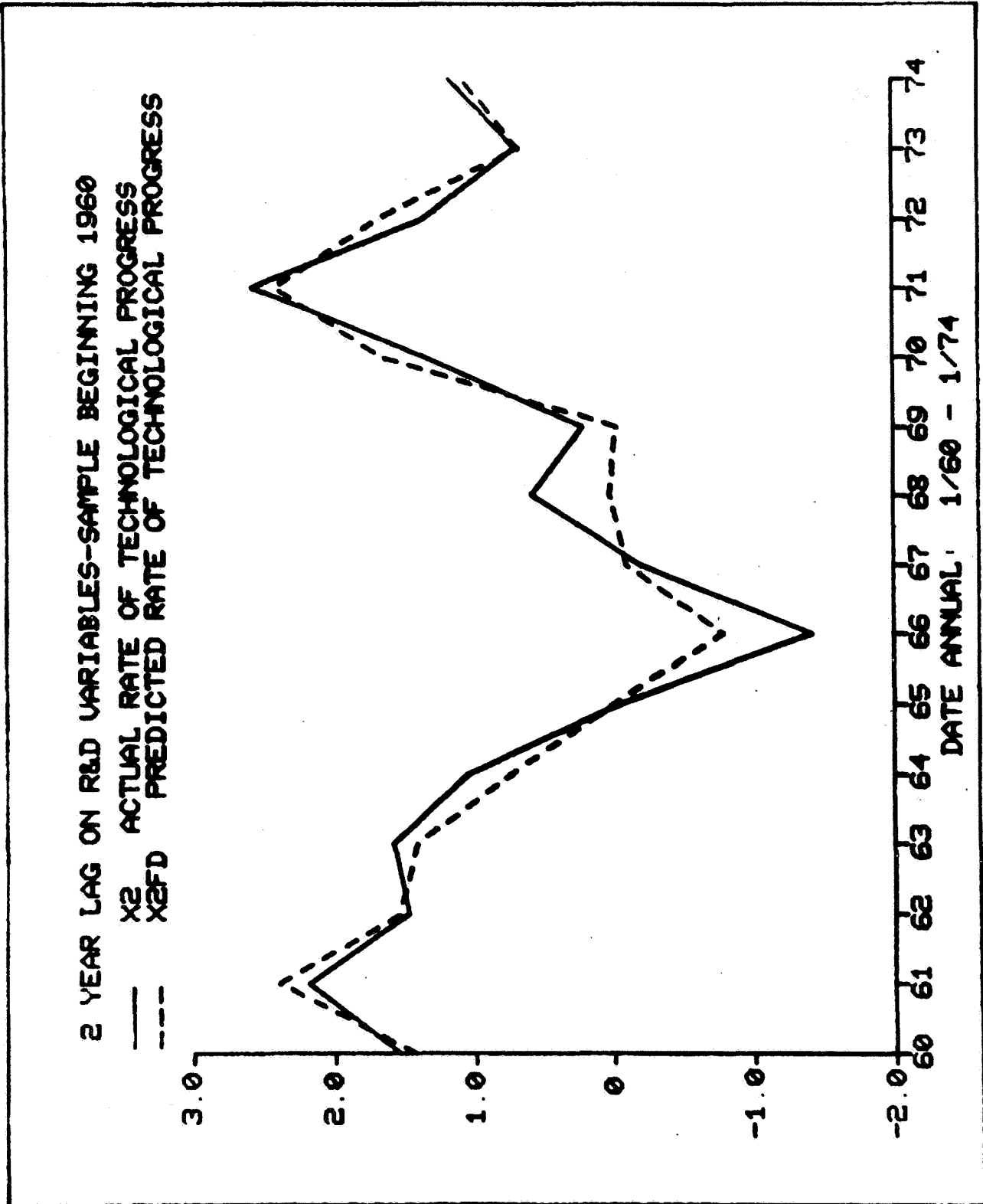
(2.0)

(4.5)

$$- 0.157 (\text{Cp}-\overline{\text{Cp}})$$

(3.1)

$\overline{R^2} = 0.883$
 DW = 1.96



$$\gamma = -0.24 + 0.492 \sum_{i=0}^7 A_i (NRD)_{-i} \frac{(1-C_p)}{(1-\overline{C_p})} + 0.041 \sum_{i=0}^7 A_i (ORD)_{-i} \frac{(1-C_p)}{(1-\overline{C_p})} + 0.029 (IM-\overline{IM})$$

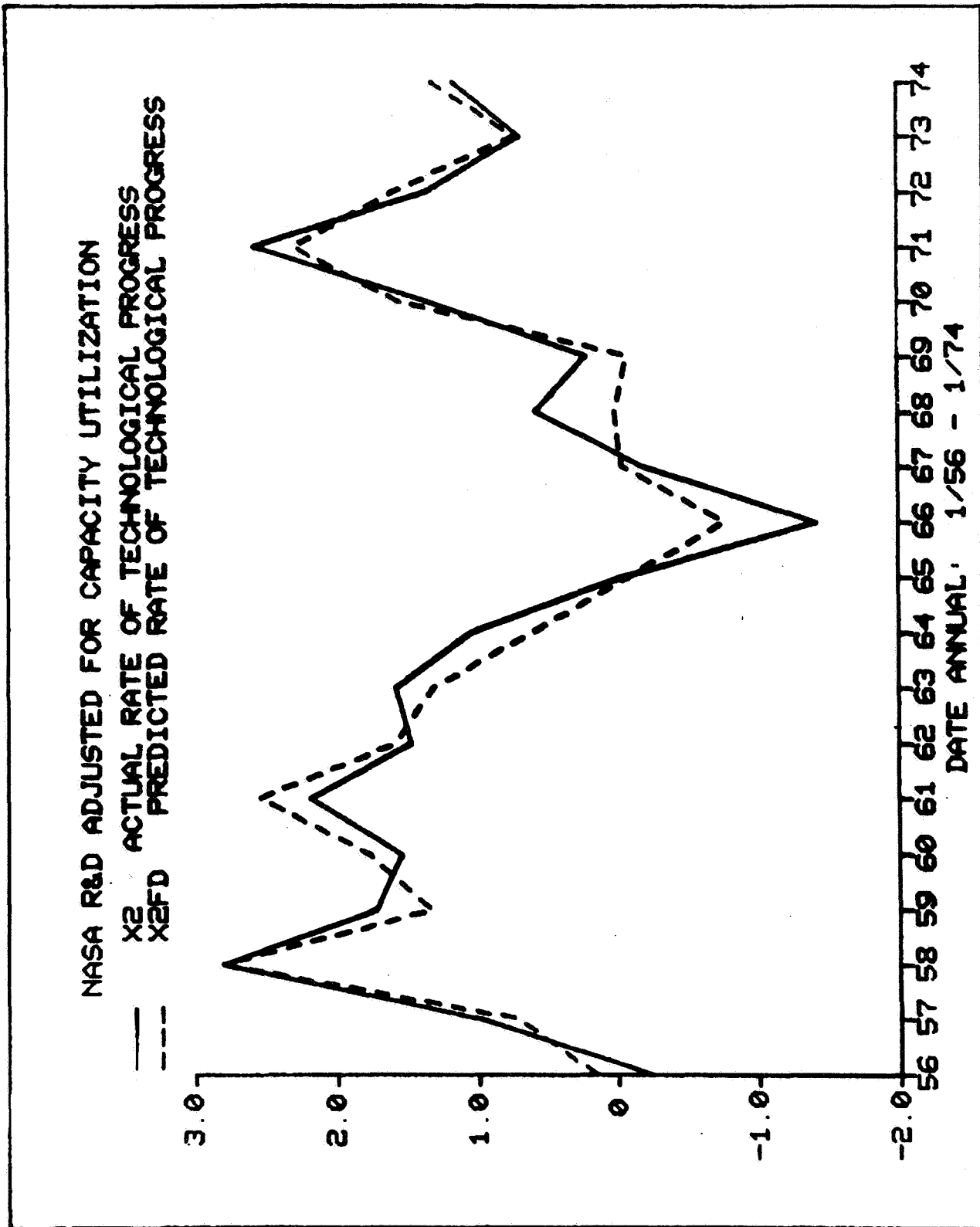
(5.2) (2.1) (4.2)

$$- 0.164 (C_p - \overline{C_p})$$

(3.9)

$$\overline{R}^2 = .875$$

$$DW = 1.88$$



$$\gamma = -0.97 + 0.542 \sum_{i=0}^7 A_i \text{ (NRD)}_{-i} \frac{(1-C_p)}{(1-\overline{C_p})} + 0.043 \sum_{i=0}^7 A_i \text{ (ORD)}_{-i} \frac{(1-C_p)}{(1-\overline{C_p})} + 0.029 \text{ (IM-}\overline{\text{IM}})$$

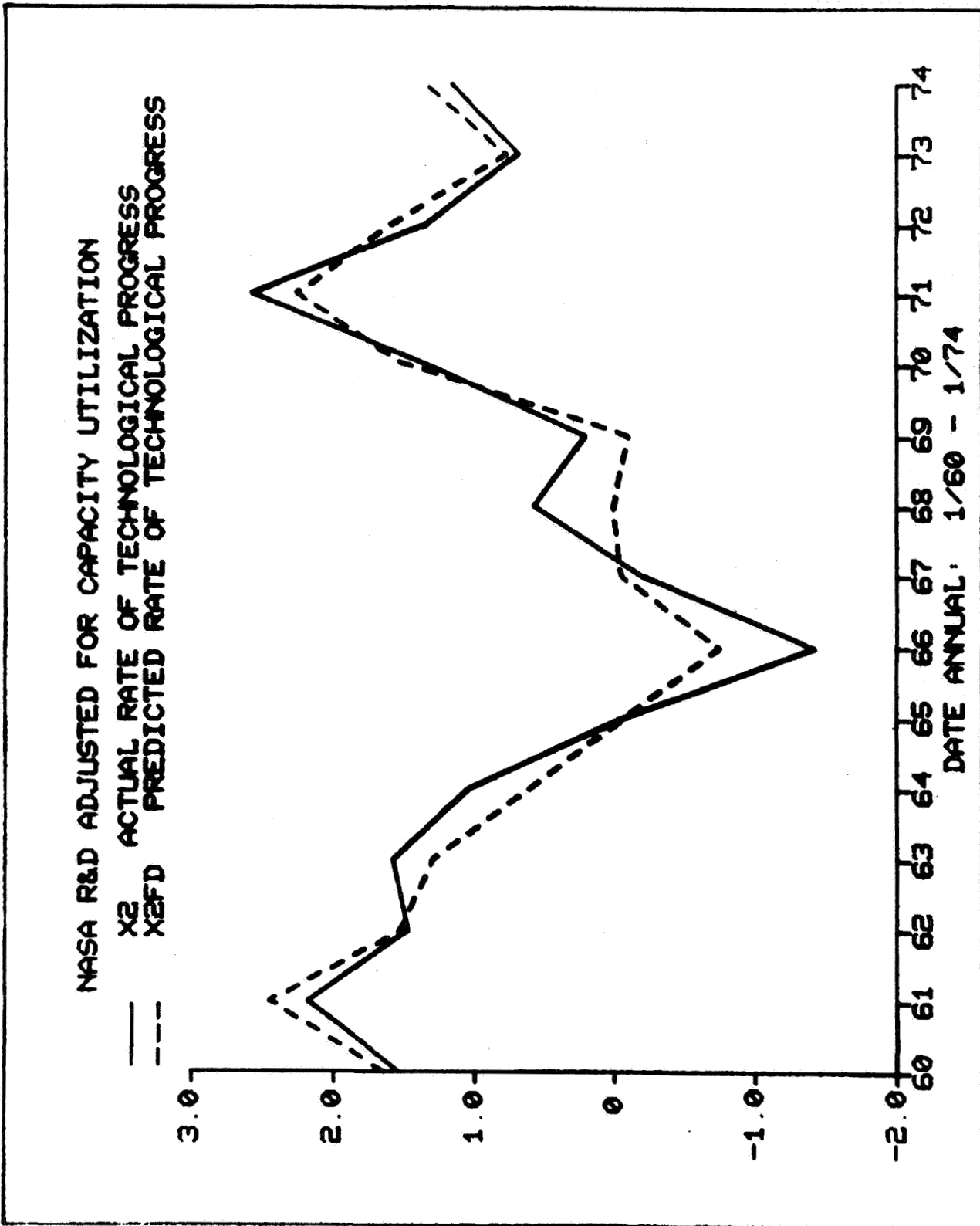
(3.2) (1.2) (3.9)

$$- 0.158 \text{ (Cp-}\overline{\text{Cp}})$$

(2.9)

$$\overline{R^2} = .853$$

$$\text{DW} = 1.69$$



$$\gamma = -0.44 + 0.330 \sum_{i=0}^7 A_i \text{ (NRD)}_{-i} + 0.045 \sum_{i=0}^7 A_i \text{ (ORD)}_{-i} \frac{(1-Cp)}{(1-Cp)} + 0.029 \text{ (IM-IM)}$$

(4.4)

(1.9)

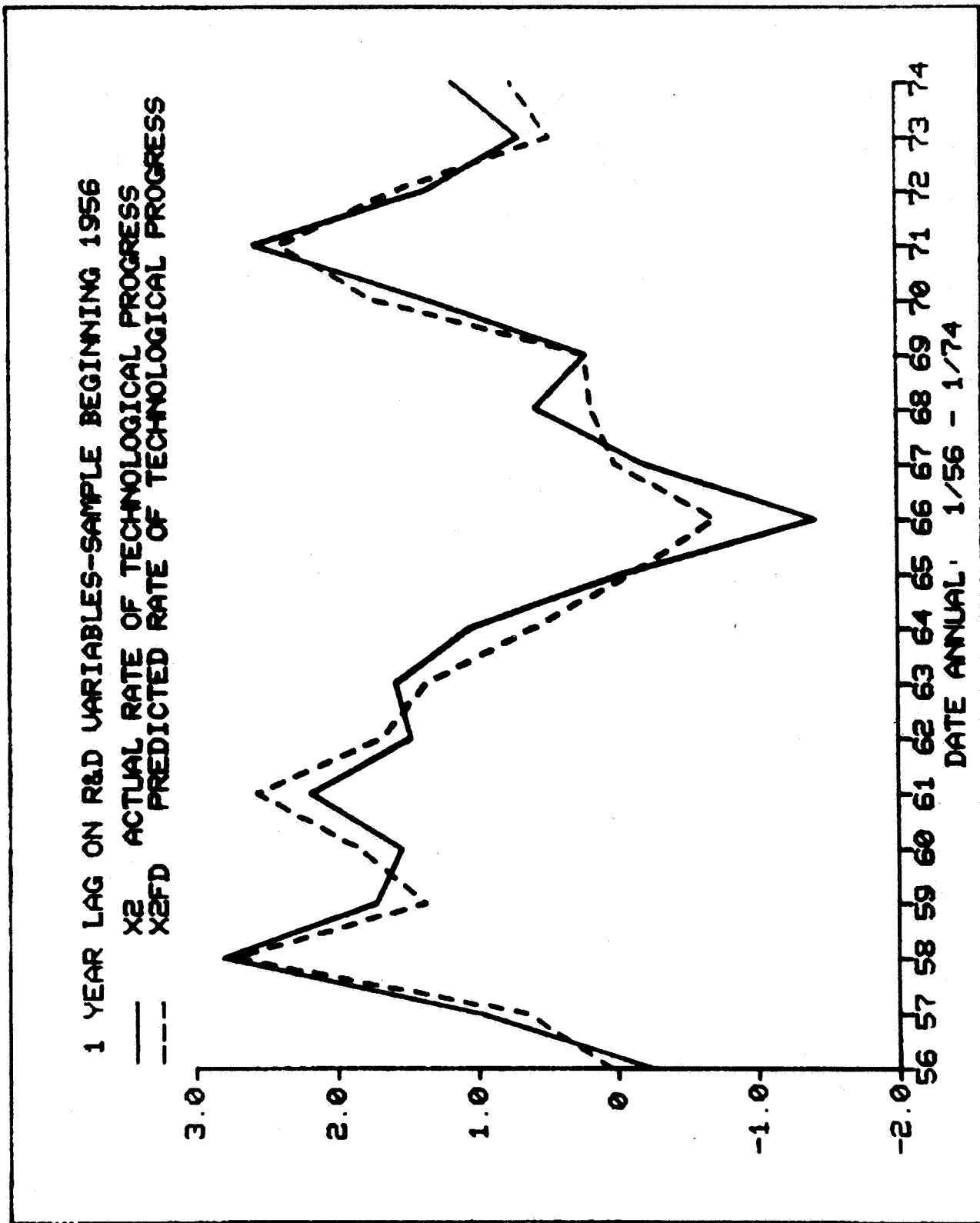
(2.8)

$$- 0.157 \text{ (Cp-Cp)}$$

(3.2)

$R^2 = .867$

DW = 1.79



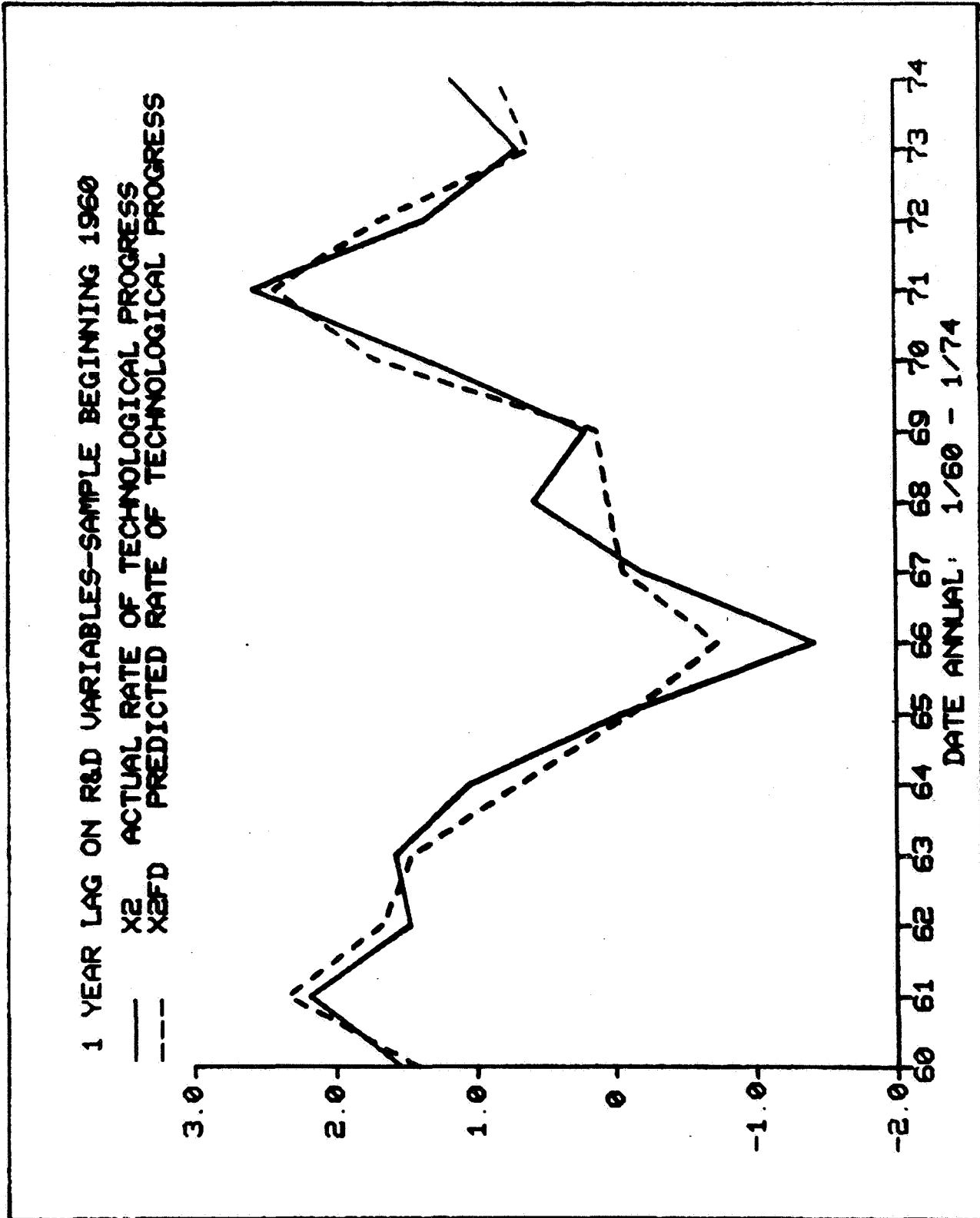
$$\gamma = -2.67 + 0.591 \sum_{i=0}^7 A_i (\text{NRD})_{-i} + 0.099 \sum_{i=0}^7 A_i (\text{ORD})_{-i} \frac{(1-\text{Cp})}{(1-\text{Cp})} + 0.029 (\text{IM}-\overline{\text{IM}})$$

(3.6)
(2.0)
(2.7)

$$- 0.163 (\text{Cp}-\overline{\text{Cp}})$$

(2.8)

$\overline{R^2} = .863$
 DW = 1.98



Ten-Year Forecast of the U. S. Economy

The calculations which we have undertaken to estimate the effect of increased NASA R & D spending on the economy are not invariant to the overall background of economic activity. While the results would not be greatly changed if we predicted a return of the U. S. economy to full employment during the next few years, it is still instructive to indicate the path which we see economic activity following until 1984. Thus in this appendix we describe in some detail the factors which we see influencing the outlook for the next ten years. We then present the complete tables of this ten-year simulation. Analogous tables for the simulations incorporating increases in NASA R & D spending are found in Appendix G.

The outline of our views for the next ten years can be summarized as follows:

- 1) The economy is expected to enter a period of rapid growth for the period from mid-1975 through the end of 1976. During this period real GNP will increase at an annual rate of better than 6%. The rate of inflation will fluctuate in the 6-8% range, with quarterly changes caused primarily by widely fluctuating food and fuel prices. Interest rates will rise but we will not enter a period of credit stringency as the so-called crowding out problem fails to materialize in this time period.
- 2) Beginning in 1977 the economic scenario will take a sharp turn for the worse. The rate of inflation will reaccelerate to the double-digit range, due to sharp increases in both commodity and labor costs. A new period of tight money will be the result both of rapidly increasing loan demand and greater monetary stringency by the Federal Reserve System. Sporadic

shortages, particularly in the area of electric power, will begin to appear. The fear of renewed shortages, coupled with the expectation of the return of wage and price controls, will lead to excess purchases of inventories and inflationary psychology, which will intensify the upward pressure on prices. All these factors will combine to produce another major recession in 1978, which will last into 1979 as well.

3) The crystal ball becomes somewhat cloudier after this. If the public, through its elected officials in Congress, awakes to the realization that a sluggish growth in productivity is at the root of the inflationary spiral, the economy will tilt in favor of more investment and R & D spending, which will gradually return the economy to full employment with a modest (5%) rate of inflation. This is the scenario pictured in our standard forecast. On the other hand, if the response of the public and Congress is to tilt even more heavily in the direction of greater private and public consumption, the U. S. economy is likely to follow Great Britain down the road to zero per capita real growth.

VIGOROUS RECOVERY THROUGH 1976

As of July 1975, the economic community is unanimous in proclaiming that the most severe postwar recession has come to an end, but not nearly so certain of the course that the economic upturn will follow. We expect that growth in real GNP will average better than a 6% annual rate for the six-quarter period 1975.3 - 1976.4. Our view of this fairly robust upturn is based on the following points.

- 1) The unprecedented reduction in inventory stocks during the first half of this year has finally resulted in a situation where most firms are now approaching equilibrium stock/sales ratios. While the inventory investment figures are peculiarly vulnerable to revision, it is likely that the decumulation of stocks proceeded at greater than a \$20 billion rate during the first half of 1975. We expect this figure to moderate to less than \$10 billion during the second half of the year, and predict that inventory investment will once again become positive during 1976, albeit at modest rates. This dramatic turnaround in inventories will be one of the major factors contributing to the rebound of the economy.

- 2) Consumer spending will once again start to move upward, due primarily to substantial gains in real disposable income. It should be stressed that the gains in consumption stem from a surge in income rather than a more positive attitude on the part of consumers themselves. We expect that wages will finally begin to rise faster than prices for this six-quarter period, and that employment will increase by three million workers per year during the next two years. In addition, the tax cuts and rebates passed earlier this year will have some positive effect on consumption; we estimate that

for every dollar in tax reduction, one-third is spent in the first quarter and one-half is spent during the first year. We also anticipate that the current tax reductions will be extended if not expanded in 1976.

In four of the five previous postwar recoveries, the personal savings rate has declined as consumers feel more ebullient about the economy and increase their purchases of durable goods. However, we are not predicting any such decline during the next two years. In fact, our forecast of the savings rate calls for an increase from 7.9% in 1974 to approximately 10% for both 1975 and 1976. Thus we do not expect consumers to react as positively to the good economic news as they have in the past. Even so, we expect consumption in real terms to rise about 3.5% over this period, which translated to about an 11% increase in current dollars.

3) Housing starts will rebound sharply from their recent depressed level of 1.0 million starts to 1.5 million starts by yearend and average 1.6 million starts in 1976. The reasons for this rebound focus on both the easing of monetary conditions since the credit crunch of last fall and the upturn in disposable income. While a 1.6 million level for housing starts is well below the peak levels of 2.5 million starts reached in early 1973, it does represent a 60% increase over the first quarter average. This increase will be sufficient to serve as another major source of upturn in economic activity.

4) Plant and equipment spending invariably lags the cycle of economic activity, both during the upswing and the downswing. Thus we expect little if any growth in this component of GNP during the remainder of this year. However, during 1976 we expect an increase of at least 10% in real terms,

as increased consumer spending results in upturns in sales and convinces businessmen that modernization and expansion plans will once again be profitable.

5) Both fiscal and monetary policy are expected to remain stimulative until after the 1976 election. We expect that the present tax cuts contained in the 1975 Tax Reduction Act will be extended if not expanded, and that government spending will exceed the limits promulgated by President Ford. As a result, we predict that the Federal government budget deficit will be approximately \$80 billion for both fiscal and calendar 1976. This record deficit will cause both short and long-term interest rates to rise during the next six quarters, but credit stringency will not become a problem until 1977. Thus the recovery can proceed apace, unhampered by shortages of credit in the sensitive construction and consumer durable goods sectors.

THE RETURN OF DOUBLE-DIGIT INFLATION

Unfortunately, this relatively optimistic forecast of real growth is accompanied by a worsening in the rate of inflation. The rate of increase in the consumer price index (CPI) during the past three months has been 5.3%, yet we expect it to rise to an average rate of 7 to 8% during the next six quarters. The 7-8% inflation forecast for the next two years is a crucial precursor of the eventual return to higher levels in 1978 for a number of reasons. First, if inflation does not dip below this range, the stage will be set for even larger wage demands when demand strengthens and unemployment declines. Second, a higher rate of inflation will lead to tighter monetary policies and higher interest rates, hence reducing the ex ante demand for

investment goods and thus exacerbating the capital shortage. Third, a high rate of inflation will continue to shift resources to the government sector, leaving less private savings available to support a capital goods boom. Thus we find it useful to examine the movements in overall inflationary trends for the next two years.

1) Prices received by farmers have risen 9% (actual amount, not annual rates) during the past two months, and will rise another 4% by yearend. Livestock prices except for beef are high and rising because of decreased supplies stemming from unfavorable meat/grain price ratios last year; beef prices are rising because of the recovery in the economy and the close relationship of beef prices to disposable income. While bumper crops are expected for all major grains this year, these record harvests have now been entirely discounted by the commodities markets, and further declines in grain prices this year are not expected.

In addition we point out that the sharp increase in prices of fuel, fertilizer, and other agricultural chemicals, plus the recent slide in grain prices, has resulted in a narrowing of farm margins to the point where prospective plantings for 1975 are below the peak levels reached in previous years for all major crops except wheat. In view of the fact that various pundits were gloomily prophesying mass starvation less than a year ago, it seems premature to suggest that we are now headed for another worldwide glut of food grains and feed crops. While we do not expect food prices to return to peak 1973 and 1974 levels this year, neither do we expect them to decline to the 1971-72 range again.

Ordinarily a 13% increase in farm prices would translate into a 4½% increase in retail food prices in addition to the normal widening of spreads between farm and retail prices, with some lag usually attached to this change. Thus while the CPI for food has risen only 0.3% in the past two months, we expect it to increase an additional 5% by the end of the year.

2) Petroleum prices will be increasing substantially during the rest of the year due both to further OPEC action and domestic demand considerations. The argument that OPEC oil prices would drop this year was never based on any detailed empirical research but rather a feeling that since cartels had always fallen apart in the past, the same fate would befall the OPEC nations. In the long run this may yet prevail; yet we see virtually no chance of it occurring over the next business cycle. Worldwide consumption of petroleum is down 10% since 1973 and oil storage facilities are literally sinking into the ground from overloading; yet there is little if any evidence that oil prices are headed in a downward direction. The recent adjustment in prices by Algeria and Libya simply returned oil prices to the prevailing world level and did not represent a cut in the standardized cartel price. The OPEC nations have indicated that they plan to tie increases in the price of oil to a general index of worldwide commodity inflation; we see no reason not to accept this basically pessimistic forecast. If the cartel were going to collapse in the near future, it would have already been affected by the sharp decline in demand. If \$11.00/bbl. oil can stand up to the slump in demand pressures occasioned by the most severe postwar worldwide recession, it certainly should have no trouble staying at that level during the coming boom.

We also point out that the assassination of King Faisal removes one of the more powerful arguments for expecting a decline in oil prices. Saudi

Arabia had been at the forefront of those countries who suggested that at least a modest decline in oil prices would best serve the interests of OPEC, a view which was not shared by the majority of its members. Furthermore, it is likely that the violent death of Faisal is only the first of several serious disruptions in the oil-rich nations of the world. Viewing the longer historical framework, we find that countries which have undergone rapid changes in wealth and income distribution have often suffered concomitant bursts of social violence and disorder. Thus we would not be surprised if unrest or even revolution were to sweep other OPEC nations in the next few years. If such events occur, they might well be accompanied by cutbacks or embargoes of oil exports for a limited period of time. While these disruptions would not be sufficient to create significant worldwide shortages of petroleum, they would undoubtedly lead to panic among buying nations, who would then rush to purchase additional quantities of oil. This unseemly behavior would definitely strengthen the resolve of the OPEC countries not to lower the price of their product.

Turning to more specific forecasts of petroleum prices during the next year, we first note that gasoline prices have already gone up about 2¢/gallon recently and it is likely they will rise another 3¢/gallon this summer due to sporadic shortages. Second, the OPEC nations will certainly raise the price of oil by at least \$1/bbl. this fall; \$2/bbl. is also a likely possibility, although \$4/bbl. all at one time does seem rather remote. Every \$1/bbl. increase in imported oil is expected to raise the price of gasoline 1¢/gallon. Third, some steps will eventually be taken to deregulate the price of old oil, although here we have assumed that the existing price control mechanism will be extended until the end of the year. We estimate that every \$1/bbl. increase in the price of old oil will raise the price of

gasoline by 0.6¢/gallon. While this may not seem like a very large amount, old oil prices are likely to rise at least \$2 to \$3/bbl. in the first step when controls do come off. In addition, increases in gasoline prices are not the only way in which higher fuel costs add to increases in the CPI. Since virtually every industry uses some petroleum products, these are passed along as higher costs of doing business. Thus while the weight of gasoline in the CPI is only 3.4%, meaning that a 2% increase in gasoline prices would raise the CPI only 0.07% on a direct basis, a \$1/bbl. increase in petroleum prices actually raises the CPI by 0.2%.

Finally, one cannot ignore the fact that the prices of alternative sources of fuel are also climbing rapidly. Coal prices are expected to double during the next few years, due to a combination of sharply higher labor costs, higher transportation costs, and increased environmental and safety regulations. Natural gas prices will probably triple by 1980; even this represents no guarantee that production will be any higher than it is now. Alternative sources of oil, such as the North Sea and offshore drilling in the U. S., are likely to cost as much as OPEC oil by the time sharply escalating construction costs have been considered. The world is running out of cheap fuel somewhat faster than even the pessimists had imagined two years ago, and hence OPEC is not likely to have to face the problem of increased competition from cheaper sources of fuel.

3) The recent patterns of worldwide industrial commodity prices also indicate significant increases in those areas during the 1975.3 - 1976.4 period. These prices have already started to rise in spite of a 15% annual rate decline in the world index of industrial production during the previous two quarters. Such increases are undoubtedly a precursor of strong worldwide

demand and a possible resumption of shortages next year. The U. S., Germany and Japan have all moved toward significantly easier monetary and fiscal policies during the past six months, which will result in strong surges in demand by next year. Second, costs of production for basic metals will begin to rise rapidly when economic growth once again turns positive. We expect, for example, that the price of fabricated steel, copper and aluminum products will rise approximately 20%, 8% and 19% respectively during 1975 and 1976. This will be caused by higher fuel costs, which we have already discussed, higher labor costs, which we discuss next, and the high costs of meeting environmental standards. Third, the lingering fear of another Middle East outbreak has probably caused some speculative activity on a worldwide level.

4) During each previous postwar recovery, long-term interest rates have either been steady or falling. However, this time we expect them to rise approximately 200 basis points from mid-1975 to the end of 1976. This is due not only to the quickening rate of inflation, but also the \$80 billion Federal budget deficit expected for fiscal 1976. Demand for loans in the private sector will also increase along with the recovery, but this is normal; the abnormal factors are the continuing huge deficit -- even more unusual in recovery than in recession -- and the return to higher rates of inflation. The effect of higher interest rates raises prices both directly, through higher mortgage rates in the CPI, and indirectly, through higher costs of doing business in general. We estimate that a 200 basis-point increase in long-term rates will raise the CPI by 1.5%.

5) The cost of environmental controls represents another major cause of inflation during the next two years, as the ratio of incremental investment

for pollution control purposes is now nearing its peak because most of the current regulations must be implemented by 1977. In a number of studies which we did for the EPA and CEQ, we estimated that environmental controls would raise prices 2% during 1976, the peak year for such purchases. These results were obtained using the EPA's own estimates of costs, which a number of industry sources have suggested are understated. By comparison, the increase in prices expected from this source in 1975 is just about 1%.

6) Due to the Pension Reform Act of 1974, many companies will have to increase their contributions to pension funding considerably. We do not have any precise figures in this area, and we understand that the IRS regulations, although they have been issued, are subject to so many ambiguities that it will be years before the exact contribution requirements have been established. Even so, some rough guidelines can already be calculated, and we have estimated that this new law increases labor costs by approximately 1% per year.

7) The increase in wage rates will continue at approximately a 10% rate even if the economy remains sluggish and even if the unemployment rate remains above 9%. In order to reach this conclusion, we need to dispense with what is usually called the Phillips curve.

The tradeoff between full employment and price stability is usually known as the Phillips curve, named after Professor A. W. Phillips who introduced this concept in 1958 (58). The basic theory behind this concept centers around the dynamics of the labor market. When the economy is at full employment, most new job opportunities can be filled only by hiring individuals away from their present employment by offering them

increased wages. Furthermore, those workers who stay on their present jobs will find it easy to bargain for higher wages on the threat of moving to other positions. As the unemployment rate begins to increase, employers find that they can hire a greater proportion of their workers from the ranks of the unemployed; in that case they need not offer more than the going wage. Thus as unemployment increases, wage bargains diminish in size.

In addition to all this, wage bargains also contain an element reflecting previous increases in the cost of living. In other words, the Phillips curve is three-dimensional rather than two-dimensional; wage rates are related both to the lagged rate of unemployment and the lagged change in consumer prices. However, this still does not invalidate the argument that for a given level of inflation, higher unemployment will result in smaller wage increases.

So far there is nothing wrong with the argument, and in fact as the unemployment rate fluctuates between 4% and 6% we have noticed a definite pattern for wage bargains to vary accordingly during the past twenty years. However, the argument breaks down, or perhaps we should say flattens out, when the unemployment rate rises so high that virtually all positions in the labor force can be filled by hiring from the ranks of the unemployed. Given the present institutional structure of the labor market and unemployment compensation insurance, virtually no worker will accept employment at less than his previous wage. Furthermore, no union leader can maintain his position if he settles for wage increases which are less than recent increases in the cost of living. Thus regardless of how high the unemployment rate goes, the lower boundary to wage bargains will be set by the recent average rise in the CPI. In other words, the reduction in wage increases due to higher unemployment flattens out with unemployment over 8%.

8) The U. S. economy is faced with a serious slowdown in the rate of growth of productivity. This trend is a continuation of events which have occurred during the past two years, largely as a result of decreasing R & D expenditures and declines in productive investment. For the period 1947 to 1966, the officially published BLS series on output/manhour increased at an average annual rate of 2.9%. By comparison, this figure grew at a rate of only 1.4% for the period from 1966 to 1974.

This particular comparison may be unfair in the sense that both 1947 and 1966 were full employment years while 1974 was a recession year. This is a valid argument since productivity invariably declines during recession years, as changes in employment lag changes in output. Thus we have estimated what labor productivity would be in 1977 if it increased at the same rate that it had in previous postwar recoveries.

Let us assume that productivity increases at a 3.1% rate for the ten-quarter period 1975.3 to 1977.4; this is the average increase during postwar recoveries. This is substantially higher than we expect; but even if we give this argument the benefit of the doubt, we still find that productivity would have increased only 1.7% for the period 1966-1977, down from 2.9% for the earlier postwar period.

Yet these figures overstate the true increases in productivity because they understate the estimate of manhours which forms the denominator of the output ratio. If one simply calculates a man-hour index based on all manhour employees, it can easily be determined that the actual growth in productivity since 1966 has been 0.6% lower than the published figures. This indicates that productivity has risen no more than 0.8% per year for the period 1966-1974, and would rise no more than 1.1% per year for the period 1966-1977 even if productivity were to show a strong upward swing in the forthcoming recovery.

A number of factors have contributed to this decline in productivity. First, the ratio of fixed investment to GNP in constant prices has been gradually decreasing over the postwar period. In the early postwar years, the ratio was 16.8%, in the mid-1950's it was 15.7%, in the mid-1960's it had declined to 14.6%, and in the latest investment "boom" it was only 14.4%. This decline has been most substantial in the primary goods industries -- iron and steel, nonferrous metals, fabricated metals, paper, chemicals, and petroleum. It has been due to lower expected rates of return, which are tied directly to lower profit margins, to higher interest rates, and to the three credit crunches of the past ten years. Clearly monetary policy must share part of the blame for the decline in the ratio of investment to GNP.

Second, an increasing part of total investment has been spent for meeting pollution, safety, and other environmental restrictions. The official EPA figures undoubtedly understate the true magnitude of expenditures for pollution control, since they represent only "incremental" costs, i.e., those expenditures which were made over and above improvements in facilities which would have occurred anyhow. It is not always possible to determine whether a new plant was built directly in response to new legislation or would have been constructed in any case, and the EPA figures undoubtedly err on the low side. In any case, using their figures we calculate that the level of non-pollution control investment in 1975 will actually be below that of 1970.

Plant and Equipment Spending, Billions of 1958 Dollars

	<u>Total</u>	<u>Pollution Control</u>	<u>Other</u>
1970	77.2	0.6	76.6
1971	76.7	1.1	75.6
1972	83.7	2.0	81.7
1973	94.4	3.3	91.1
1974	94.1	6.6	87.5
1975 ^e	83.2	7.8	75.4

e = estimated

On the industry level, the EPA figures indicate that over 20% of total plant and equipment spending represents purchases for pollution abatement in the nonferrous metals, paper, and steel industries; the figure is over 10% for the petroleum, chemicals, and stone, clay and glass industries, and is 9% for electric utilities. We should also point out that these figures do not take account of premature retirements due to pollution controls; one estimate (not EPA's) is that two-thirds of the non-captive iron foundry industry capacity was shut down by pollution controls.

Third, the rate of productivity has declined because of the sharp decrease in Federal spending on research and development. This percentage has declined from a peak of 3.0% in the 1964-1967 period to its 1974 level of 2.3%. This point is discussed in detail in the main text of this report.

It has also been suggested that shifts in the age-sex composition of the labor force have retarded the rate of growth of productivity during the past ten years. According to this hypothesis, the increasing number of secondary workers in the labor force has resulted in a lower rate of growth of productivity because these workers have less training and experience. However, when we tried to measure this effect on the rate of technological progress adjusted for cyclical swings, we found no significant relationship. Instead we determined that the lower rates of growth in productive capital stock and the decline in the proportion of GNP spent for research and development were the primary factors for the sharp decrease in productivity during the past ten years.

THE RECESSION OF 1978

The growth in real GNP over 6% will be finished by the end of 1976. This fact by itself occasions no cause for alarm; we have never had a period in the postwar economy when real GNP grew at an average rate of over 6% for more than six consecutive quarters. However, sometimes the pattern of economic activity settles down to an equilibrium growth rate, usually about 4%, while other times it evolves into another recession. While the Federal government has at its command very powerful tools to mitigate the swings in economic activity, all indications point to the fact that fiscal and monetary policy will contribute to the next recession rather than retarding it. We point out that this would represent behavior which has been consistent in every single postwar recession.

The major strands of our recession scenario are as follows:

- 1) The rate of inflation will continue to climb until it returns to the double-digit range. We have already discussed how these factors will operate in the 1975-76 period in some detail; other factors contributing to a higher rate of inflation are discussed below.
- 2) Monetary policy will tighten dramatically after the 1976 election. As a result we expect another severe credit crunch and new peaks for both short- and long-term interest rates.
- 3) Fiscal policy will switch from stimulative to restrictive in 1977. The tax cuts of 1975 and 1976 will not be renewed, greater restraints will be put on government spending, and an overhaul of the social security system will result in greatly increased taxes and some reduction in benefits after adjusting for inflation.

4) Sporadic shortages will develop throughout the economy. These are not likely to be caused by inadequate amounts of capacity in the basic materials industries, but rather by shortages of electric power. Insufficient power supplies will lead to serious interruptions of production schedules for those industries which depend heavily on electric power. Thus shortages of basic materials may occur even though sufficient capacity exists to handle normal levels of demand.

5) The existence of sporadic shortages will recall the tumultuous events of the 1973-74 period of shortages; that will cause businesses to stockpile excessive inventories of key materials. This speculative increase in demand will intensify the inflationary spiral, thus encouraging additional buying in an attempt to beat further price increases. Furthermore, these rapid price hikes will increase the probability of wage and price controls, which will in turn lead to upward jockeying of price lists by firms so that they are not caught in an administration imposed cost-price squeeze.

We now discuss each of these points except the first in greater detail.

As evidence continues to mount that the rate of inflation is likely to remain in the 7 to 8% range, the Federal Reserve System will case increasingly nervous glances in the direction of tighter monetary policy. While it is hard to imagine the Fed moving in this direction before the 1976 elections, it requires very little imagination to see this move taking place shortly thereafter. It is likely that by the end of next year the Fed will move to restrict supplies of credit being used for "inflationary" purposes.

As is usually the case when such events occur, the sector which will be most adversely affected is housing. Thus we expect housing starts to

decline from a level of 1.6 million starts in 1976 to 1.3-1.4 million in 1977 and 1.1-1.2 million in 1978. Similarly, substantial declines are expected in sales of consumer durables, especially automobiles.

None of this should be particularly surprising in view of what has occurred in 1966, 1970, and 1974. However, we believe that a new wrinkle will be added to the scenario this time. In previous credit crunches, many firms found it necessary to borrow increasing amounts from the banking system in view of rising costs and a slackening rate of demand. In the past, the banking system was able to provide the needed funds, which resulted in a very rapid expansion in loan demand in the later stages of cyclical expansion. However, this time it is extremely unlikely that the banking system will be able to meet another surge in loan demand. Many banks found themselves in the position of being dangerously over-loaned in 1974; some fairly large banks actually had loan/deposit ratios of over 100%. Thus the banking system will be unable to expand its loan portfolio yet another time unless it increases its capital base substantially. Yet this seems quite unlikely; the principal way of accomplishing this in time for the next recession would be through massive floatation of new equity. Yet most banks find that their stock is currently selling well under book value, and if our scenario is correct it spells further gloom and decline for the stock market. As a result the increase in bank loans will be rather limited in nature during the next three years.

This leaves only the fixed income security markets. The strain in these markets will be unprecedented, and as a result we will see new peaks in interest rates, even though the rate of inflation will probably not be quite as high as the 13% level reached for the CPI in the latter months of 1974. Thus during peak periods of monetary tightness, we expect that the

prime rate will reach 15% and long-term corporate bond yields will exceed 13%. Such unprecedented interest rates will clearly lead to a diminution in investment demand, which will be a major factor causing the plunge into recessionary waters.

The Federal budget deficit which we have predicted for 1978 is \$63 billion, which does not seem appreciably lower than current estimates. However, this deficit would decline to only \$30 billion if the economy were to continue on its 4% growth track during 1977 and 1978; once again, the large deficit is due primarily to a decline in taxable revenues and an increase in unemployment benefits and welfare payments. We mention this to point out that fiscal policy will actually turn somewhat restrictive after the elections. While this factor alone would not be sufficient to turn the economy around, it does represent a significant switch from the highly stimulatory budget deficits of 1975 and 1976.

The two major areas in which we expect changes are as follows. First, the tax cuts of 1975 and 1976 probably will not be renewed, since by the end of 1976 the unemployment rate will have declined to the 7.5% range and will outwardly appear to show signs of declining further. Second, the bankruptcy of the social security system will have to be handled with realism rather than promises. As a result of this, we expect the social security taxes rates to rise from 5.85% to 6.85% and the income base to rise from \$14,100 to \$19,500 in 1977. In addition, we have assumed that social security benefits will not receive another cost-of-living adjustment in 1977. These three changes will reduce the Federal budget deficit by approximately \$40 billion on an ex ante basis.

A minor factor in these calculations will be the decline in Federal government purchases in real terms in 1977 and 1978. However, this figure has been increasing only modestly during the past few years, as almost all of the increase in Federal spending has been due to inflation. Hence this amounts to less than \$10 billion in terms of reduced budget deficit.

We now turn to a different type of factor which will add to our recessionary woes in 1978, which is the shortage of electric power. The one major sector of the economy in which virtually everything has gone wrong during the past decade is the electric utility industry. Consider what has happened.

1) Despite consistent shortages in the form of brownouts ever since 1966 (except for recession years) the industry has been unable to increase capacity faster than the growth in demand. Since prices are regulated, the utilities cannot raise their margins and double their profits in one year like the steel industry did in 1974. At one time they might have been able to borrow the money they needed. However:

2) Utilities have been net borrowers -- investment has been greater than cash flow -- since 1964. This period more or less coincides with sharply rising interest rates, distorted balance sheets, and more recently foregone dividends. Since we expect that interest rates will continue to rise rapidly in the next three years, utilities will be severely limited in the amount of outside financing which they can undertake.

3) While costs have risen rapidly for virtually all industries during the past year, utilities have been especially hard hit because of the increase in fuel prices. While they have in general been able to pass these costs

along, some public utility commissions are now busy at work determining how they can inhibit or prohibit utilities from passing all of the higher fuel costs along to consumers. If this practice becomes widespread, the cost squeeze is likely to intensify.

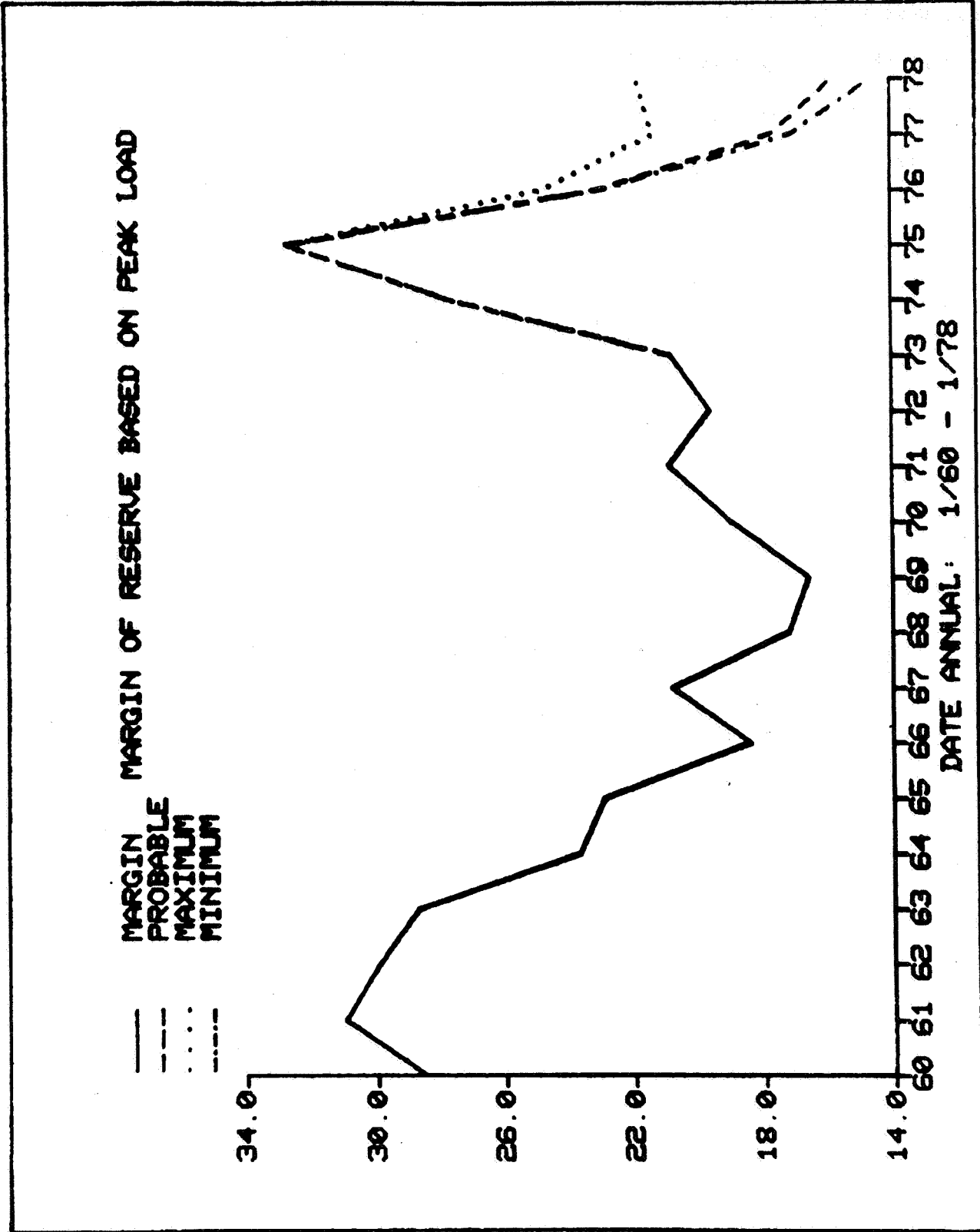
4) A sharp increase in prices for most commodities would result in a significant reduction in total demand and substitution through imports and other materials. However, none of these options exists in the short run for electric power. As we explain below, the sharp decline in power usage at the time of the Arab oil embargo was due primarily to psychological factors rather than higher prices.

5) Much of the increase in investment by the electric utility industry has been for pollution control equipment, which not only reduces capital spending for modernization and expansion but also reduces the efficiency of the power plants.

6) The rise in the reserve margin this year to an estimated 32.7%, which is the highest in at least fifteen years, will serve as a further disincentive for investment in electric utilities during the next few years. Thus by the time the excess capacity disappears, it will be too late to do anything about it, at least for the duration of this business cycle.

All of these reasons serve as contributing factors to the electric power shortages which is likely to occur at the peak of the next cycle in 1978. None of the disincentives to invest listed above are about to change in the next few months. Thus we are likely to be locked into the problem long before it actually surfaces, although the problem is already being actively discussed.

Chart F-1



If we take what we believe to be the most realistic combination of demand and capacity estimates, we find an unprecedented shortage of electricity by 1978. The reserve margin at peak load time would be only 15.8%, well below not only the 20.8% of 1973 but the 16.6% of 1969, the postwar low. Under this condition we would certainly have power shortages and a resultant slowdown in industrial production, substantial shortages, and another severe recession.

If the shortages of electric power are as severe as we have indicated, we are likely to see shortages in many basic raw materials which depend heavily on energy whether or not they have adequate capacity in place. Some of the problems may be solved by relying more heavily on imports of these commodities. However, if the U. S. is forced to go heavily to the import market, this is likely to set up a chain reaction of speculative hoarding among other nations of the world, which will worsen the situation. Even if the shortages caused by power interruptions would be only sporadic in nature, uncertainty about sources of supply will clearly lead to excessive inventory accumulation. Thus shortages of major materials are still a distinct possibility during 1977 and 1978, although for a different set of reasons than was the case in 1973 and 1974.

If all of these factors actually do occur, we are almost certain to have an intensification of the panic buying and speculation which occurred in 1973 and early 1974. Thus even if capacity is sufficient to handle normal peak demands, it will not be able to keep up with the short-term surge in speculative demand. These shortages will clearly exacerbate the situation, as firms will stockpile goods which they do not need just in case the materials are not available at a later time. We will thus have

an overaccumulation of inventories which will be similar, although probably more severe, than the stockpiling which occurred last year.

It is not particularly useful to speculate whether this combination of speculative buying and rapidly rising prices will bring another round of wage and price controls; that depends critically on the political nature of the President and Congress. Yet even if controls are not reimposed, most businessmen will be expecting them because of the renewed double-digit inflation. This sort of behavior occurred last fall, when the vast majority of businessmen expected reimposition of controls. Even though no such thing occurred, it contributed to inflation by causing businessmen to raise their prices before they became locked into fixed list prices which became unrealistic as uncontrolled costs continued to rise. Thus firms will raise their prices in anticipation of controls; this will worsen the inflationary spiral even more.

All these forces will cumulate in another major recession. While the exact magnitude is still somewhat hard to define, due both to problems of timing and incomplete information about how the Federal government will react, it is likely that GNP will decline for at least four quarters in a row and the unemployment rate will top 10%. If the recession were to be as severe as the one which is just now ending, the unemployment rate would rise to the 12% level. Even higher levels are possible if a badly confused President and Federal Reserve Board Chairman push the economy further in the wrong direction.

1980 AND BEYOND

Unlike many gloom and doom fanatics, we do not see the end of the world occurring in 1978, just another serious recession. The U. S. and world economies will recover sometime in 1979, just as they have recovered from the most recent recession. What happens after that depends critically on fiscal and monetary policy, and in particular the direction which they take with regard to capital spending.

Lying at the root of the recent recessionary problems has been an inability of the economy to generate increases in productivity. As a result, the real wage of the average worker declined almost 10% during the past two years and is now lower than it was in 1964. Frustrated, the worker has pushed for higher wages and tax relief. However, higher wages have immediately been dissipated into higher prices, while tax relief has come at the expense of investment through higher interest rates in capital markets. Since a higher nominal wage rate pushes the taxpayer into a higher marginal tax bracket, he has less purchasing power on balance even if wages and prices rise by the same amount.

The only way to break this vicious spiral is to return to the period when productivity rose approximately 3% a year, rather than the 1% per year average which has occurred since 1966. This can be accomplished by two major changes. First, we need to increase the ratio of investment to consumption and of investment to GNP. Second, we need to expand the production possibility frontier through greater knowledge, which can be accomplished primarily through increased spending for R & D. The major finding of this study has been to document the strong relationship between increased R & D spending and higher rates of increase in productivity.

Investment cannot prosper in an atmosphere where the tax climate encourages present consumption at the expense of capital formation. Yet this trend continues. The Tax Reduction Act of 1975 was a good example of this; of the \$22.8 billion in tax reduction, \$20 billion went to consumers while \$2.8 billion went to businesses. We do not consider this a balanced tax cut, although there is little doubt that increased fiscal stimulus was needed, largely to redress the imbalances caused by overly stringent monetary policy during most of 1974. However, obvious inequities such as double taxation, which are not found elsewhere in the industrialized world, need to be eliminated or completely revamped if we are to redirect the economy toward a higher area of investment.

The case for higher R & D spending has been amply documented in the main text and does not need to be repeated here. However, we found in our results that private R & D has a much smaller effect in increasing the rate of technology, partially because it is designed toward increasing the profits of one particular company and hence does not contain valuable spillover effects. Thus a greater proportion of the total government budget devoted to R & D would, we believe, pay very substantial dividends in terms of increasing productivity and the real wage, hence raising real growth while reducing the rate of inflation.

At this point we cannot tell which of the two paths will be followed by the U. S. economy in the 1980's. In our standard forecast, which is contained on the following pages, we have opted for the most optimistic scenario, and have the unemployment rate returning to 6% by the end of the ten-year simulation period. However, there is clearly no guarantee that this will occur. If Congress decides to tilt the economy further in the direction of higher

ratios of private and public consumption to investment, we will undoubtedly find ourselves heading in the direction of zero per capita growth, and the U. S. will be reduced to the economic power of a somewhat larger Great Britain.

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978

TABLE 1.1A -- GROSS NATIONAL PRODUCT IN CURRENT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	7.9	5.1	13.1	12.0	6.9	7.9	11.9	11.3	10.0	9.6	9.2
CONSUMPTION EXPENDITURES	6.9	7.3	11.2	12.0	6.2	7.4	9.5	10.1	9.5	9.3	6.6
AUTOMOBILES AND PARTS	-13.6	-3.1	29.9	15.5	-3.6	4.6	15.7	9.6	6.2	5.8	4.7
OTHER DURABLE GOODS	7.0	2.2	11.1	9.2	4.7	4.8	11.4	11.9	9.3	9.1	8.7
NONDURABLE GOODS	12.5	6.0	10.3	11.6	6.7	7.4	6.7	9.2	9.0	6.7	6.4
SERVICES	9.5	9.1	10.1	12.0	10.1	6.3	9.3	10.6	10.6	10.2	9.6
GROSS PRIVATE INVESTMENT	.0	-14.4	33.3	14.7	-3.8	5.7	27.2	18.6	10.8	9.6	9.7
FIXED INVESTMENT	.6	-1.8	20.7	12.7	1.4	9.8	20.1	14.1	10.3	10.4	10.4
NONRESIDENTIAL	9.1	.2	15.7	17.2	5.4	2.8	14.6	16.1	13.4	12.6	12.7
STRUCTURES	10.7	4.3	11.8	15.3	9.7	5.6	11.1	12.1	14.1	15.3	14.0
EQUIPMENT	6.1	-1.9	17.9	16.2	3.1	1.2	16.6	18.4	13.1	11.5	12.0
RESIDENTIAL STRUCTURES	-19.6	-8.3	38.4	-5	-12.6	39.2	37.1	8.6	1.4	3.0	2.4
NONFARM	-20.2	-8.4	36.7	-6	-12.9	39.9	37.6	8.7	1.4	3.0	2.4
EXPORTS	39.6	5.4	13.8	11.0	10.3	9.0	9.2	9.4	8.1	7.5	6.3
IMPORTS	43.2	4.4	19.0	10.5	6.6	7.6	9.8	9.6	7.4	7.8	7.9
GOVERNMENT PURCHASES	11.9	11.5	10.2	9.9	9.7	9.7	9.9	10.1	10.2	10.5	9.8
FEDERAL	9.7	12.5	9.5	9.2	7.8	8.3	8.9	9.2	9.2	9.4	9.3
NATIONAL DEFENSE	5.8	11.7	6.6	8.3	7.2	7.4	7.9	8.3	8.3	8.4	6.3
OTHER	18.6	14.3	11.3	11.1	6.9	10.1	10.8	10.9	10.7	10.9	11.0
STATE AND LOCAL	13.3	10.9	10.7	10.4	10.8	10.4	10.5	10.6	10.7	11.1	10.0

TABLE 1.2A -- OTHER MAJOR ECONOMIC INDICATORS (PERCENT CHANGE, ANNUAL RATES)

GNP IN 1956 DOLLARS	2.1	-4.0	5.8	4.3	-1.1	1.0	6.2	6.0	4.4	3.8	2.9
IMPLICIT GNP DEFLATOR	10.3	9.4	6.9	7.4	8.1	6.8	5.3	5.0	5.3	5.6	6.1
CONSUMER PRICE INDEX	11.0	9.1	7.9	8.3	8.7	7.1	5.8	5.2	5.2	5.4	5.8
WHSL PRICE INDEX, TOTAL	18.8	10.2	7.5	8.2	8.1	6.4	6.4	5.0	4.4	5.3	6.3
WHSL PRICE INDEX (INDUS COMM)	22.1	11.2	6.4	6.1	7.0	5.0	5.9	5.2	4.7	5.6	7.2
INDEX OF INDUS PROD, TOTAL	-9	-11.1	9.9	7.8	-2.8	-1.9	7.7	8.8	6.1	4.8	4.0
INDEX OF INDUS PROD, MFG.	-9	-12.0	10.1	7.9	-3.3	-2.3	6.3	9.6	6.4	4.9	4.0
DISPOSABLE PERSONAL INCOME	8.4	9.6	11.5	10.9	7.9	8.3	10.1	9.6	9.2	9.0	8.5
CORP PROFITS BEFORE TAX	14.7	-22.0	28.4	16.3	-13.6	-4	27.6	17.0	8.3	10.2	10.5
CORP PROFITS AFTER TAX	16.7	-17.2	26.8	13.2	-13.0	-3	25.2	15.8	7.3	9.1	9.5
MONEY SUPPLY, NO TIME DEP (M1)	5.3	7.6	7.6	4.2	3.6	5.5	6.9	6.9	6.0	5.6	3.8
MONEY SUPPLY +TD =CD (M2)	7.9	9.6	8.6	5.7	5.6	8.2	9.1	8.6	7.3	6.7	5.1
MONEY SUPPLY WITH TIME DEP	11.2	8.5	8.8	6.1	5.9	8.1	8.9	8.3	7.2	6.6	5.1

TABLE 1.2B -- OTHER MAJOR ECONOMIC INDICATORS (ACTUAL CHANGE)

TREASURY BILL RATE, 91-DAY	.65	-1.72	1.65	1.51	.31	-1.59	-1.60	-.64	.28	.37	.90
COMMERCIAL PAPER RATE, 4-6 MO	1.68	-3.05	2.07	1.97	.23	-1.74	-1.84	-.75	.29	.40	1.01
AA CORPORATE RATE, NEW ISSUES	1.52	.55	1.11	.64	-.51	-1.64	-1.25	-.69	-.19	.03	.33
INDEX OF CAPACITY UTILIZATION	-4.06	-9.31	3.17	1.31	-3.67	-1.66	2.52	2.66	.65	.19	-.43
NEW PASSENGER CAR SALES, SAAR	-2.54	-1.10	1.75	1.09	-1.04	.03	1.48	.89	.35	.29	.17
TOTAL PRIVATE HOUSING STARTS	-.71	-.10	.36	-.23	-.23	.60	.47	-.06	-.10	-.05	-.08
UNEMPLOYMENT RATE	.8	3.4	-.8	-.7	1.2	1.3	-.7	-1.3	-.8	-.6	-.5
PERSONAL SAVINGS RATE	-.3	2.0	.4	-.8	-.2	.7	.5	-.4	-.3	-.3	-.3
FEDERAL GOVT SURPLUS OR DEF	-2.5	-77.3	6.6	23.4	-7.8	-17.7	8.7	17.7	8.1	7.6	10.3

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 2.1 -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
												75-80 80-84 75-84
GROSS NATIONAL PRODUCT	821.2	788.1	834.0	869.6	859.6	868.5	922.4	977.7	1021.2	1059.6	1090.8	3.20 6.20 3.67
CONSUMPTION EXPENDITURES	539.5	533.3	550.5	570.6	571.2	575.1	598.6	628.5	656.6	683.3	706.2	2.34 4.22 3.17
DURABLE GOODS	103.1	94.6	102.9	109.0	103.8	103.2	111.7	119.3	124.6	129.8	134.3	3.38 4.70 3.96
NONDURABLE GOODS	223.7	223.7	229.0	236.2	239.8	240.3	246.4	255.6	265.1	274.2	282.4	1.95 3.47 2.62
SERVICES	212.6	215.0	218.5	223.4	227.7	231.6	240.5	253.6	266.9	279.2	289.5	2.27 4.75 3.36
GROSS PRIVATE INVESTMENT	126.7	95.0	119.0	128.7	115.8	115.6	140.5	159.5	167.9	173.6	177.8	8.14 6.06 7.20
FIXED INVESTMENT	118.0	102.6	114.8	121.7	116.0	120.6	137.9	149.9	156.9	163.4	168.5	6.10 5.14 5.67
NONRESIDENTIAL	94.0	82.8	89.6	98.5	96.1	93.7	103.1	114.7	123.7	131.6	138.0	4.48 7.56 5.83
STRUCTURES	26.2	25.1	25.6	27.1	27.9	28.2	29.9	31.6	33.0	36.2	37.9	3.58 6.14 4.71
EQUIPMENT	67.8	57.7	64.0	71.4	68.2	65.5	73.2	83.1	89.9	95.5	100.1	4.87 8.12 6.29
RESIDENTIAL STRUCTURES	24.0	19.8	25.2	23.2	19.9	26.9	34.8	35.2	33.2	31.8	30.5	11.98 -3.24 4.94
NONFARM	23.6	19.4	24.8	22.8	19.5	26.5	34.4	34.8	32.8	31.4	30.1	12.13 -3.28 4.99
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	2.71 .00 1.49
CHANGE IN INVENTORIES	8.7	-7.5	4.2	6.9	-2.2	-5.1	2.6	9.6	11.0	10.2	9.3	.00# 37.46 .00#
NONFARM	7.4	-7.3	4.2	6.9	-2.2	-5.1	2.6	9.6	11.0	10.2	9.3	.00# 37.46 .00#
FARM	1.2	-.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00# .00# .00#

NET EXPORTS OF GOODS AND SERV

EXPORTS	9.0	10.3	10.7	12.6	13.1	14.6	15.2	16.4	16.3	19.2	19.6	8.10 6.58 7.42
IMPORTS	71.9	67.2	70.8	73.3	75.7	78.6	81.6	85.2	88.0	90.0	92.3	3.97 3.12 3.59
	62.9	56.9	60.1	60.7	62.6	64.0	66.4	68.8	69.7	70.8	72.6	3.15 2.27 2.76
GOVERNMENT PURCHASES	146.0	149.5	153.7	157.6	159.6	163.2	168.1	173.3	178.3	183.5	187.1	2.37 2.71 2.52
FEDERAL	56.5	58.2	59.3	60.2	59.3	59.5	60.4	61.5	62.5	63.4	64.1	.76 1.48 1.08
NATIONAL DEFENSE	38.1	38.9	39.3	39.6	38.8	38.6	38.8	39.1	39.4	39.7	39.7	-.05 .60 .24
OTHER	18.5	19.3	20.0	20.6	20.8	21.0	21.6	22.4	23.1	23.7	24.4	2.31 3.01 2.62
STATE AND LOCAL	89.5	91.4	94.4	97.4	100.3	103.7	107.7	111.8	115.8	120.1	123.0	3.34 3.38 3.36

TABLE 2.2 -- IMPLICIT PRICE DEFLATORS FOR GNP

GROSS NATIONAL PRODUCT	170.2	186.3	199.1	213.9	231.3	246.9	260.1	273.2	287.6	303.7	322.3	6.91 5.51 6.28
CONSUMPTION EXPENDITURES	162.5	176.4	189.9	205.2	221.8	236.6	249.0	261.0	273.7	287.4	302.7	7.14 5.00 6.18
DURABLE GOODS	123.7	135.1	145.2	154.8	164.6	173.2	181.1	188.2	194.7	201.4	208.6	6.04 4.94 6.94
NONDURABLE GOODS	170.0	183.5	197.7	212.2	229.2	245.6	260.5	274.3	288.1	302.8	318.6	7.26 5.17 6.32
SERVICES	173.5	187.2	202.8	222.2	240.0	255.5	268.9	282.0	296.3	312.2	330.8	7.52 5.31 6.52
FIXED INVESTMENT	165.3	186.8	201.4	214.1	227.8	240.3	252.3	264.9	279.1	295.9	316.7	6.20 5.84 6.03
NONRESIDENTIAL	158.7	180.6	192.9	205.7	222.2	234.2	243.8	254.5	267.7	283.8	305.1	6.18 5.77 5.99
STRUCTURES	198.7	216.7	237.4	257.8	274.8	287.2	301.3	319.3	340.8	367.1	399.0	6.81 7.28 7.01
EQUIPMENT	143.2	164.9	175.2	185.8	200.6	211.3	220.3	229.9	240.2	252.3	269.6	5.96 5.17 5.60
RESIDENTIAL	191.4	212.7	231.4	249.8	255.1	261.7	277.7	298.9	321.6	345.7	368.7	5.48 7.35 6.30
NONFARM	191.6	212.9	231.8	250.3	255.6	262.0	277.9	299.2	322.0	346.2	369.3	5.47 7.37 6.30
FARM	183.5	198.0	208.5	220.2	231.2	245.0	259.8	275.5	291.7	309.4	325.6	5.59 5.80 5.68
CHANGE IN INVENTORIES	161.5	167.4	178.5	194.7	213.4	223.7	236.6	248.5	259.9	273.9	293.1	7.16 5.51 6.42
EXPORTS	195.0	220.0	237.2	254.4	271.8	285.5	300.3	314.8	329.3	346.2	365.8	6.42 5.06 5.81
IMPORTS	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1	7.64 5.81 6.82
GOVERNMENT PURCHASES	211.8	230.5	247.2	265.0	287.0	307.8	328.5	350.9	375.8	403.3	434.4	7.34 7.24 7.28
FEDERAL	206.8	226.0	242.9	261.4	286.0	308.8	331.2	355.4	381.9	411.6	445.1	7.94 7.67 7.81
STATE AND LOCAL	215.0	233.4	249.9	267.3	287.6	307.2	326.9	348.5	372.4	399.0	428.7	6.97 7.02 6.98
ADD: GOVT OUTPUT ORIGINATING	250.8	266.7	284.5	302.3	321.1	341.2	363.1	386.2	411.1	437.1	460.6	6.36 6.13 6.25

* GROWTH RATE NOT CALCULATED

THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1970

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 TABLE 2.1A -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	-2.1	-4.0	5.8	4.3	-1.1	1.0	6.2	6.0	4.4	3.8	2.9
CONSUMPTION EXPENDITURES	-2.3	-1.2	3.2	3.7	.1	.7	4.1	5.0	4.5	4.1	3.4
DURABLE GOODS	-9.2	-8.2	8.8	5.9	-4.8		8.2	6.8	4.4	4.2	3.4
NONDURABLE GOODS	-2.2	.0	2.4	4.0	.7	.2	2.5	3.7	3.7	3.4	3.0
SERVICES	1.3	1.1	1.6	2.2	1.9	1.7	3.8	5.5	5.3	4.6	3.7
GROSS PRIVATE INVESTMENT	-8.3	-25.0	25.2	8.1	-10.0		21.6	13.5	5.3	3.4	2.4
FIXED INVESTMENT	-7.3	-13.1	11.9	6.1	-4.7		14.3	8.7	4.7	4.2	3.1
NONRESIDENTIAL	-4	-12.0	8.2	9.9	-2.4		10.0	11.3	7.8	6.4	4.9
STRUCTURES	3.1	-4.3	2.0	6.2	3.0		5.9	5.7	6.9	7.1	4.8
EQUIPMENT	-1.7	-14.9	10.9	11.4	-4.4		11.8	13.5	8.2	6.2	4.8
RESIDENTIAL STRUCTURES	-27.0	-17.6	27.3	-7.7	-14.5		35.6	29.3	1.0	-5.7	-4.0
NONFARM	-27.6	-17.7	27.6	-7.8	-14.8		36.3	29.7	1.0	-5.8	-4.0
FARM											
EXPORTS	7.9	-6.6	5.4	3.6	3.3		3.7	3.9	4.4	3.3	2.5
IMPORTS	1.5	-9.6	5.7	1.0	3.1		2.2	3.7	1.3	1.7	2.6
GOVERNMENT PURCHASES	1.1	2.4	2.8	2.5	1.3		2.2	3.0	2.9	3.0	1.9
FEDERAL	-1.3	2.9	2.0	1.5	-1.5		.3	1.5	1.6	1.5	1.1
STATE AND LOCAL	-4.8	2.1	1.1	.6	-2.0		-6.6	.9	.8	.6	.1
OTHER	6.8	4.5	3.6	3.2	-5		2.0	3.3	3.0	2.9	2.7
CHANGE IN INVENTORIES	2.8	2.1	3.3	3.2	3.0		3.4	3.8	3.6	3.8	2.4

TABLE 2.2A -- IMPLICIT PRICE DEFLATORS FOR GNP (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	10.3	9.4	6.9	7.4	8.1	6.8	5.3	5.0	5.3	5.6	6.1
CONSUMPTION EXPENDITURES	11.4	8.5	7.7	8.0	8.1	6.7	5.3	4.8	4.8	5.0	5.3
DURABLE GOODS	7.8	9.2	7.5	6.7	6.3	5.2	4.5	3.9	3.5	3.4	3.6
NONDURABLE GOODS	14.9	7.9	7.7	7.4	8.0	7.1	6.0	5.3	5.0	5.1	5.2
SERVICES	8.1	7.9	8.4	9.6	8.0	6.5	5.2	4.9	5.1	5.4	5.9
FIXED INVESTMENT	8.5	13.0	7.8	6.3	6.4	5.5	5.0	5.0	5.3	6.0	7.0
NONRESIDENTIAL	9.5	13.8	6.8	6.6	6.0	5.4	4.1	4.4	5.2	6.0	7.5
STRUCTURES	7.2	9.0	9.5	8.6	6.6	4.5	4.9	6.0	6.7	7.7	8.7
EQUIPMENT	10.2	15.2	6.2	6.1	8.0	5.3	4.3	4.3	4.5	5.0	6.8
RESIDENTIAL	10.0	11.1	8.8	7.9	2.1	2.6	6.1	7.7	7.6	7.5	6.7
NONFARM	10.1	11.1	8.9	8.0	2.1	2.5	6.1	7.7	7.6	7.5	6.7
FARM	9.2	7.9	5.3	5.6	5.0	6.0	6.0	5.9	6.1	5.2	5.2
CHANGE IN INVENTORIES	30.2	3.7	6.6	9.1	9.6	4.9	5.7	5.1	4.6	5.4	7.0
EXPORTS	29.5	12.8	7.9	7.2	6.8	5.1	5.2	4.8	4.6	5.1	5.7
IMPORTS	41.2	15.4	12.5	9.4	5.4	5.2	5.9	6.0	6.0	6.0	5.2
GOVERNMENT PURCHASES	10.6	8.9	7.2	7.2	8.3	7.2	6.7	6.8	7.1	7.3	7.7
FEDERAL	11.2	9.3	7.4	7.6	9.4	8.0	7.3	7.3	7.5	7.8	8.1
STATE AND LOCAL	10.2	8.6	7.1	6.9	7.6	6.8	6.4	6.6	6.9	7.1	7.5
CHANGE IN INVENTORIES	5.2	6.3	6.7	6.2	6.2	6.3	6.4	6.4	6.4	6.3	5.4

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 3.1 -- RELATION OF GNP, NATIONAL INCOME, AND PERSONAL INCOME

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS*
GROSS NATIONAL PRODUCT	1397.4	1468.2	1661.2	1860.0	1988.5	2145.1	2399.6	2671.2	2937.1	3218.5	3515.6	10.32 10.02 10.18
DEPRECIATION (CCA), TOTAL	119.5	128.9	139.5	151.8	165.7	180.0	197.8	219.5	243.8	270.6	300.4	8.94 11.01 9.84
DEPRECIATION, CORP.	76.7	83.7	90.7	99.0	108.5	118.3	130.1	144.4	160.6	178.7	199.0	9.23 11.21 10.10
DEPRECIATION, NON-CORP.	42.8	45.3	48.8	52.8	57.2	61.7	67.7	75.1	83.2	91.9	101.4	8.39 10.61 9.36
NET NATIONAL PRODUCT	1278.0	1339.2	1521.7	1708.2	1822.8	1965.0	2201.8	2451.0	2693.3	2947.0	3215.2	10.45 9.93 10.21
INDIRECT BUSINESS TAXES	126.9	138.0	153.7	170.6	184.9	199.1	217.5	238.3	260.4	284.2	308.5	9.32 9.13 9.34
BUSINESS TRANSFER PAYMENTS	5.2	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.2	6.20 4.89 5.61
STATISTICAL DISCREPANCY	.4	4.4	5.9	1.5	-7.6	-5.6	.1	.0	.8	-1.4	-.9	-50.37 .00* .00*
SUBSIDIES LESS SURPLUSES	-2.9	-1.3	-0.8	-0.5	-2.8	-3.3	-3.7	-4.1	-4.6	-5.1	-5.6	.00* .00* .00*
NATIONAL INCOME	1142.5	1189.9	1355.4	1529.1	1635.9	1761.0	1972.9	2201.3	2419.1	2651.1	2892.9	10.64 10.04 10.36
CORPORATE PROFITS AND IVA	105.6	99.9	126.7	143.9	127.9	126.7	163.8	197.5	215.0	233.1	255.7	10.40 11.79 11.00
CONTRIBUTIONS FOR SOCIAL INSUR	101.5	106.9	119.5	152.4	170.0	188.7	213.3	240.2	267.9	297.1	328.6	14.82 11.42 13.28
WAGE ACCRUALS LESS DISBURSMENTS	-.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00* .00* .00*
GOVT TRANSFERS TO PERSONS	134.6	170.7	189.0	209.2	229.1	252.9	274.0	295.7	320.4	348.0	378.1	9.92 8.39 9.23
INTEREST PAID BY GOVT AND CONS	42.3	45.6	55.0	64.6	71.2	74.2	76.6	80.4	86.1	92.8	99.7	10.92 6.81 9.06
DIVIDENDS	32.7	34.8	38.7	43.1	45.4	46.4	49.6	56.3	63.3	69.2	75.3	7.36 11.01 8.96
BUSINESS TRANSFER PAYMENTS	5.2	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.2	6.20 4.89 5.61
PERSONAL INCOME	1150.5	1239.9	1394.7	1558.2	1692.4	1827.3	2005.5	2206.6	2416.4	2639.9	2871.6	10.09 9.39 9.77

TABLE 3.2 -- NATIONAL INCOME BY TYPE OF INCOME

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS*
NATIONAL INCOME	1142.5	1189.9	1355.4	1529.1	1635.9	1761.0	1972.9	2201.3	2419.1	2651.1	2892.9	10.64 10.04 10.36
COMPENSATION OF EMPLOYEES	855.8	905.7	1029.4	1165.4	1271.4	1383.5	1541.5	1716.2	1895.3	2086.0	2280.1	11.22 10.28 10.79
WAGES AND SALARIES	750.7	790.7	895.9	1010.4	1095.7	1183.8	1314.2	1457.6	1601.1	1751.6	1906.4	10.99 9.75 10.26
PRIVATE	592.4	617.4	707.0	804.6	869.6	933.9	1037.0	1150.3	1260.7	1373.8	1495.3	10.93 9.58 10.32
MILITARY	21.2	22.4	23.7	25.4	27.1	29.0	31.1	33.2	35.6	38.1	40.4	6.82 6.77 6.79
GOVERNMENT CIVILIAN	137.1	151.0	165.2	180.3	199.0	220.9	246.0	274.0	304.9	339.8	370.7	10.26 10.79 10.49
SUPPLEMENTS TO WAGES AND SAL	105.1	115.0	133.5	155.1	175.6	199.7	227.3	258.6	294.2	334.4	373.7	14.61 13.23 13.98
EMPLOYER SOCIAL INSURANCE	53.6	56.6	64.0	81.5	91.1	101.2	114.7	129.5	144.7	160.7	178.0	15.17 11.61 13.56
OTHER LABOR INCOME	51.4	58.3	66.4	75.4	86.4	99.4	114.4	131.5	151.3	173.9	196.2	14.44 14.45 14.43
PROPRIETORS INCOME	93.0	84.9	89.7	97.3	99.1	100.1	104.5	110.3	115.4	121.5	128.8	4.25 5.36 4.74
BUSINESS AND PROFESSIONAL	61.2	62.5	63.4	66.0	66.4	66.3	69.5	74.1	78.0	82.8	88.8	2.17 6.31 3.98
FARM	31.8	22.4	26.3	31.2	32.7	33.9	35.0	36.2	37.4	38.7	40.0	9.32 3.39 6.64
RENTAL INCOME OF PERSONS	26.5	27.3	28.1	28.9	30.0	31.1	32.5	34.0	35.5	37.1	38.7	3.55 4.50 3.96
CORPORATE PROFITS AND IVA	105.6	99.9	126.7	143.9	127.9	126.7	163.8	197.5	215.0	233.1	255.7	10.40 11.79 11.00
PROFITS BEFORE TAX	140.7	109.8	141.0	163.9	141.6	141.0	179.8	210.3	227.9	251.0	277.3	10.37 11.44 10.83
MANUFACTURING	64.5	49.4	65.9	75.9	58.3	54.3	76.2	93.3	100.7	111.3	124.6	9.95 13.00 10.81
FINANCIAL	20.8	21.9	25.0	28.9	31.3	33.8	38.7	44.2	48.8	53.8	59.2	12.12 11.17 11.68
OTHER	55.4	38.5	50.1	59.2	52.0	52.9	64.9	78.8	85.9	93.5	103.5	11.01 9.37 10.36
PROFITS TAX LIABILITY	55.7	39.4	51.7	62.9	53.6	53.3	70.0	83.2	91.5	102.2	114.5	12.20 13.06 12.57
PROFITS AFTER TAX	65.0	70.4	89.3	101.1	87.9	87.7	109.8	127.1	136.4	148.8	162.9	9.30 10.36 9.76
DIVIDENDS	32.7	34.8	38.7	43.1	45.4	46.4	49.6	56.3	63.3	69.2	75.3	7.36 11.01 8.96
UNDISTRIBUTED PROFITS	32.4	35.6	50.6	57.9	41.3	41.3	60.2	70.8	73.1	79.6	87.5	11.06 9.82 10.50
INVENTORY VALUATION ADJ	-35.1	-9.9	-14.3	-20.1	-13.7	-14.3	-16.1	-12.8	-12.9	-17.9	-21.6	.00* .00* .00*
NET INTEREST	61.6	72.2	81.5	93.7	107.6	119.7	130.6	143.3	157.9	173.4	189.5	12.59 9.75 11.31

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

ANNUALIZED COMPOUND
 GROWTH RATES, YEARS=
 75-80 80-84 75-84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS= 75-80 80-84 75-84
PERSONAL INCOME	1150.5	1239.9	1394.7	1558.2	1692.4	1827.3	2005.5	2206.6	2416.4	2639.9	2871.6	10.09 9.39 9.77
WAGE AND SALARY DISBURSEMENTS	751.2	790.7	895.9	1010.4	1095.7	1183.8	1314.2	1457.6	1601.1	1751.6	1906.4	10.69 9.75 10.26
MANUFACTURING	211.3	209.5	243.6	278.1	290.8	306.2	346.8	392.1	430.8	466.5	503.1	10.61 9.75 10.22
CONSTRUCTION	51.5	48.8	54.7	61.1	65.5	72.5	84.2	94.4	104.2	115.9	128.3	11.54 11.09 11.32
OTHER NONFARM PRIVATE	323.2	352.1	400.8	456.4	503.5	544.5	594.4	651.2	712.2	777.0	848.5	11.04 9.31 10.25
FARM	6.4	7.0	7.9	9.0	9.8	10.7	11.6	12.6	13.5	14.4	15.4	10.65 7.31 9.15
GOVERNMENT	158.8	173.3	188.9	205.8	226.1	249.9	277.1	307.3	340.5	377.8	411.1	9.84 9.36 10.06
OTHER LABOR INCOME	51.4	58.3	66.4	75.4	86.4	99.4	114.4	131.5	151.3	173.9	196.2	14.44 14.45 14.43
PROPRIETORS INCOME	93.0	84.9	89.7	97.3	99.1	100.1	104.5	110.3	115.4	121.5	128.8	4.25 5.36 4.74
BUSINESS AND PROFESSIONAL FARM	61.2	62.5	63.4	66.0	66.4	66.3	69.5	74.1	78.0	82.8	88.8	2.17 6.31 3.98
RENTAL INCOME OF PERSONS	26.5	27.3	28.1	28.9	30.0	31.1	32.5	34.0	35.5	37.1	38.7	3.55 4.50 3.96
DIVIDENDS	32.7	34.8	38.7	43.1	45.4	46.4	49.6	56.3	63.3	69.2	75.3	7.36 11.01 8.96
PERSONAL INTEREST INCOME	103.8	117.8	136.5	158.2	178.8	194.0	207.2	223.7	244.1	266.2	289.2	11.95 8.89 10.48
TRANSFER PAYMENTS	139.8	176.4	195.0	215.7	235.9	260.1	281.6	303.7	328.6	356.8	387.3	9.81 8.30 9.13
OLDAGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.8	141.8	154.6	168.5	183.7	200.4	11.11 9.83 10.17
UNEMPLOYMENT INSURANCE	7.1	18.1	16.7	15.7	19.0	22.4	21.5	19.1	17.7	16.8	16.2	3.48 -6.80 -1.22
VETERANS BENEFITS	16.1	18.8	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0	11.71 9.56 10.74
OTHER	46.9	55.7	61.5	67.3	71.9	78.2	85.6	93.9	102.9	112.9	123.7	8.97 9.63 9.25
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.8	78.9	87.6	98.6	110.7	123.2	136.4	150.7	14.42 11.19 12.96
PERSONAL TAX PAYMENTS	170.8	166.0	198.0	231.1	259.8	275.5	297.2	334.3	371.5	411.0	453.5	12.35 11.15 11.80
DISPOSABLE PERSONAL INCOME	979.7	1073.7	1196.9	1327.1	1432.6	1551.9	1708.2	1872.2	2044.7	2228.7	2418.0	9.73 9.88 9.43
PERSONAL OUTLAYS	902.7	967.5	1074.6	1202.7	1301.3	1398.1	1531.2	1695.5	1847.1	2018.9	2198.2	9.62 9.46 9.54
CONSUMPTION EXPENDITURES	876.7	940.6	1045.6	1170.9	1266.7	1361.0	1490.9	1640.9	1797.4	1963.9	2137.6	9.63 9.43 9.54
INTEREST PAID BY CONSUMERS	25.0	25.9	28.2	30.9	33.7	36.1	39.4	43.7	48.7	54.0	59.7	8.71 10.95 9.69
TRANSFERS TO FOREIGNERS	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.00 .00 .00
PERSONAL SAVING	77.0	106.3	122.3	124.4	131.3	153.8	177.0	186.7	197.7	209.9	219.8	10.74 5.57 8.40
DISPOSABLE INCOME 19588	602.8	608.7	630.0	646.7	646.0	655.8	685.8	717.1	747.0	775.4	798.8	2.41 3.89 3.06
PERSONAL SAVINGS RATE	7.9	9.9	10.2	9.4	9.2	9.9	10.4	10.0	9.7	9.4	9.1	1.01 -3.21 8.89

TABLE 4.2 -- ADDITIONAL EXOGENOUS VARIABLES USED IN INCOME DETERMINATION

SUPPLEMENTS TO WAGES, MFG.	39.2	42.1	48.8	57.5	66.3	76.1	87.5	100.6	115.8	133.1	150.2	15.76 14.46 15.16
SUPPLEMENTS, CONSTRUCTION	5.9	7.0	8.2	9.7	11.0	12.4	14.0	15.8	17.9	20.2	22.5	14.99 12.51 13.87
SUPPLEMENTS, OTHER PRIV NONFRM	39.5	42.5	49.6	58.0	66.4	76.7	88.3	101.5	116.8	134.2	151.5	15.72 14.45 15.14
SUPPLEMENTS, FARM	.5	.7	.8	.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	14.00 6.94 10.79
SUPPLEMENTS, GOVERNMENT	19.9	22.7	26.0	28.9	30.8	33.3	36.2	39.2	42.2	45.2	47.8	9.81 7.21 8.64

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1984
 TABLE 5.1 -- FEDERAL GOVERNMENT RECEIPTS AND EXPENDITURES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
FEDERAL GOVERNMENT RECEIPTS	291.1	273.1	320.8	387.0	414.2	437.7	489.0	553.2	613.5	678.4	748.1	12.35 11.22 11.84
PERSONAL INCOME TAXES	131.3	122.2	145.7	168.2	186.4	192.2	203.9	229.3	254.7	281.2	308.5	10.78 10.91 10.82
CORPORATE PROFITS TAXES	49.1	34.1	45.0	55.0	46.0	45.2	60.1	71.6	78.5	87.7	98.1	12.02 13.04 12.46
INDIRECT BUSINESS TAXES	22.0	24.1	26.2	28.6	30.7	32.6	35.2	38.4	41.7	45.1	48.7	7.86 8.39 8.09
CONTRIBUTIONS FOR SOCIAL INSUR	86.7	92.7	103.9	135.3	151.1	167.7	189.7	213.9	238.6	264.4	292.8	15.41 11.46 13.62
FEDERAL GOVERNMENT EXPENDITURE	299.1	358.5	399.6	442.4	477.4	518.6	561.1	607.7	659.9	717.2	776.6	9.38 8.46 8.96
PURCHASES OF GOODS AND SERVICE	116.9	131.5	144.1	157.4	169.6	183.8	200.2	218.6	238.7	261.0	285.4	8.76 9.26 8.98
NATIONAL DEFENSE	78.7	87.9	95.5	103.4	110.9	119.1	128.5	139.1	150.6	163.3	176.9	7.89 8.32 8.07
OTHER	38.2	43.6	48.6	54.0	58.6	64.7	71.7	79.5	88.1	97.7	108.5	10.44 10.90 10.63
TRANSFER PAYMENTS	117.0	150.1	166.4	184.6	202.0	223.3	241.4	259.6	280.5	303.8	329.4	9.97 8.08 9.12
OLD-AGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.0	141.8	154.6	168.5	183.7	200.4	11.11 9.03 10.17
VETERANS BENEFITS	16.0	18.0	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0	11.71 9.56 10.74
UNEMPLOYMENT INSURANCE	7.1	18.1	16.7	15.7	19.0	22.4	21.5	19.1	17.7	16.8	16.2	3.48 -6.80 -1.22
OTHER DOMESTIC	21.4	26.5	29.9	33.1	34.4	37.6	41.3	45.4	50.0	55.1	60.6	9.24 10.08 9.60
TO FOREIGNERS (NET)	2.6	2.9	3.0	3.1	3.6	3.9	4.1	4.4	4.6	4.9	5.1	7.30 5.58 6.52
GRANTS-IN-AID	43.8	52.0	56.3	60.3	64.3	69.7	78.7	89.1	99.6	110.0	118.2	8.65 10.70 9.55
NET INTEREST PAID	18.8	20.9	27.8	34.5	37.7	38.1	37.1	36.6	37.3	38.6	39.9	12.13 7.42 7.42
SUBSIDIES LESS CURRENT SURPLUS	2.1	3.9	4.9	5.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	-1.14 .00 -6.63
SURPLUS OR DEFICIT (=)	-8.1	-85.4	-78.8	-55.4	-63.2	-80.9	-72.2	-54.5	-46.4	-38.8	-28.4	.00* .00* .00*

TABLE 5.2 -- STATE AND LOCAL GOVERNMENT RECEIPTS AND EXPENDITURES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
STATE AND LOCAL GOVT RECEIPTS	207.7	229.2	258.5	290.2	318.3	348.6	387.7	431.8	477.4	526.2	575.1	11.09 10.36 10.75
PERSONAL INCOME TAXES	39.5	43.8	52.4	62.9	73.4	83.3	93.2	105.0	116.8	129.8	145.0	16.32 11.66 14.21
CORPORATE PROFITS TAXES	6.7	5.3	6.7	7.9	7.6	8.0	10.0	11.6	12.9	14.5	16.3	13.31 13.16 13.23
INDIRECT BUSINESS TAXES	104.9	113.9	127.5	142.0	154.2	166.6	182.3	199.9	218.7	239.1	259.8	9.86 9.27 9.59
CONTRIBUTIONS FOR SOCIAL INSUR	12.8	14.2	15.6	17.1	18.9	21.1	23.5	26.3	29.3	32.7	35.8	10.63 11.04 10.80
FEDERAL GRANTS-IN-AID	43.8	52.0	56.3	60.3	64.3	69.7	78.7	89.1	99.6	110.0	118.2	8.65 10.70 9.55
STATE AND LOCAL EXPENDITURES	205.9	230.3	254.9	281.2	312.4	345.1	381.5	422.2	467.5	519.6	572.1	10.61 10.66 10.62
PURCHASES OF GOODS AND SERVICE	192.3	213.3	236.0	260.5	288.5	318.6	352.0	389.5	431.2	479.3	527.4	10.54 10.63 10.57
TRANSFER PAYMENTS	20.2	23.6	25.5	27.7	30.7	33.5	36.7	40.4	44.5	49.1	53.9	9.28 10.04 9.61
NET INTEREST PAID	-1.6	-1.2	-1.0	-0.9	-0.2	.0	.1	.1	.1	.1	.1	.00* .96 .00*
CURRENT SURPLUS OF GOVT ENTERP	5.0	5.2	5.6	6.1	6.5	7.0	7.4	7.9	8.4	8.8	9.3	7.13 5.85 6.55
SURPLUS OR DEFICIT (=)	1.8	-1.1	3.6	9.0	5.9	3.4	6.3	9.7	9.9	6.6	3.1	.00*-16.38 .00*

TABLE 5.3 -- OTHER FISCAL POLICY VARIABLES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
BASE PERSONAL INCOME TAX RATE	.204	.204	.204	.204	.204	.192	.180	.180	.180	.180	.180	-2.47 .00 -1.38
BASE CORPORATE INCOME TAX RATE	.480	.480	.480	.480	.480	.480	.480	.480	.480	.480	.480	.00 .00 .00
CHANGE IN SOCIAL SEC TAX RATE	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.00* .00* .00*
CHANGE IN SOC SEC INCOME BASE	600.0	225.0	275.0	887.5	250.0	250.0	250.0	250.0	250.0	250.0	250.0	2.13 .00 1.18
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.8	78.9	87.6	98.6	110.7	123.2	136.4	150.7	14.42 11.19 12.96
EMPLOYER SOCIAL INSURANCE TAX	53.6	56.6	64.0	81.5	91.1	101.2	114.7	129.5	144.7	160.7	178.0	15.17 11.61 13.56
CIVILIAN GOVERNMENT EMPLOYMENT	14.28	14.91	15.33	15.73	16.09	16.53	17.05	17.59	18.12	18.70	19.08	2.72 2.84 2.77
NUMBER OF MEN IN ARMED FORCES	2.23	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	.01 .00 .01
PROGRESS PAYMENTS, DOD	8.4	8.4	8.1	8.0	7.7	7.7	7.7	7.7	7.7	7.7	7.7	-1.73 .00 -9.96
INVESTMENT IN GOVT STRUCTURES	38.0	41.7	44.1	47.0	53.3	59.0	65.1	72.2	79.9	87.8	94.6	9.35 9.78 9.53

* GROWTH RATE NOT CALCULATED

THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 ANNUALIZED COMPOUND GROWTH RATES, YEARS-
 75=80 80=84 75=84

TABLE 6.1 -- COMPONENTS OF THE MONEY SUPPLY

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
CURRENCY	64.9	71.0	78.2	86.6	94.5	102.3	111.3	121.2	131.4	142.1	153.5
DEMAND DEPOSITS	214.0	223.4	242.0	251.4	254.5	263.5	278.5	296.1	312.0	326.4	338.6
GOVT DEMAND DEPOSITS	5.6	4.9	6.0	6.2	7.4	8.1	8.8	9.4	10.0	10.7	11.3
CONSUMER TIME DEPOSITS	317.9	351.8	387.6	417.0	445.5	487.5	539.7	594.9	648.7	696.5	744.9
CERTIFICATES OF DEPOSITS	80.4	89.8	96.3	105.1	113.9	122.7	131.5	140.3	149.1	157.9	166.7
MONEY SUPPLY (EXCL. TD)	276.9	294.4	320.2	338.0	349.0	365.8	389.8	417.3	443.4	468.5	492.2
MONEY SUPPLY (INC. CONS. TD)	596.8	646.2	707.8	755.0	794.6	853.3	929.5	1012.2	1090.1	1165.0	1237.1
MONEY SUPPLY (INCL. ALL TD)	677.2	736.0	804.1	860.2	908.5	978.0	1061.0	1152.5	1239.3	1322.9	1403.8
THRIFT DEPOSITS	359.0	395.6	450.1	492.8	533.0	589.6	665.6	742.3	810.5	870.5	924.1

TABLE 6.2 -- INTEREST RATES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
DISCOUNT RATE (NY FED RES)	7.82	6.20	6.98	7.98	8.59	8.28	6.86	5.57	5.10	5.19	5.53
FEDERAL FUND RATE	10.50	6.09	7.92	10.34	12.03	10.31	6.86	4.49	4.15	4.41	5.63
TREASURY BILL RATE, 91 DAY	7.87	6.15	7.80	9.31	9.62	8.04	6.43	5.79	6.08	6.45	7.35
COMMERCIAL PAPER RATE, 4-6 MO	9.83	6.78	8.85	10.82	11.06	9.31	7.47	6.72	7.01	7.41	8.42
PRIMARY 90DAY CD RATE, NYC BANK	10.18	6.81	9.10	11.27	11.53	9.61	7.57	6.74	7.06	7.50	8.62
PRIME COMMERCIAL BANK RATE	10.80	8.22	9.75	11.75	12.37	10.97	8.98	8.09	8.24	8.50	9.11
AAA CORPORATE RATE, NEW ISSUES	8.99	9.40	10.42	11.01	10.56	9.07	7.93	7.30	7.12	7.15	7.45
AA UTILITY BOND RATE	9.34	9.76	10.80	11.39	10.85	9.28	8.09	7.43	7.24	7.27	7.58
AA CORPORATE RATE, NEW ISSUES	9.41	9.96	11.07	11.71	11.20	9.56	8.31	7.63	7.43	7.46	7.79
AA INDUSTRIAL BOND RATE	8.83	9.44	10.48	11.06	10.53	9.00	7.84	7.20	7.02	7.05	7.36
MORTGAGE RATE	8.92	9.20	9.85	10.39	10.20	9.16	8.23	7.73	7.62	7.65	7.85

TABLE 6.3 -- OTHER MONETARY INDICATORS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
NON-BORROWED MONETARY BASE	106.6	116.2	123.1	128.2	131.4	136.6	144.0	152.4	160.2	167.8	174.7
MONETARY BASE	108.8	116.5	124.1	129.2	132.4	137.6	145.0	153.4	161.2	168.8	175.7
BORROWED RESERVES	2.05	.33	.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EXCESS RESERVES OF FED RESERVE	.19	.33	.30	.30	.30	.30	.30	.30	.30	.30	.30
FREE RESERVES	-1.86	-0.00	-0.63	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70
INDEX OF CREDIT RATONING	1.35	.76	.88	1.01	1.29	-0.07	-0.40	-0.31	-0.29	-0.28	-0.04
BUS. LOANS AT LARGE COMM BANKS	123.8	127.5	140.4	157.1	166.5	169.7	185.3	204.8	219.3	233.8	252.9
ALL NON-BUS. LOANS, ADJUSTED	312.5	323.1	354.0	394.1	439.5	481.1	525.0	572.3	620.4	658.9	676.0
INV IN MUN + OTHER SECURITIES	135.5	145.5	164.7	179.3	183.9	192.2	201.3	212.6	225.2	231.6	236.3
TOTAL INV OF COMMERCIAL BANKS	189.4	211.1	235.5	252.4	269.3	317.1	344.2	372.9	400.9	419.4	417.1
TREAS DEP AT FED RES BANKS	2.16	1.49	1.40	1.42	1.53	1.53	1.53	1.53	1.53	1.53	1.53
TREAS. SEC. AT FOREIGN BANKS	54.12	66.25	82.00	95.28	96.04	101.01	106.10	111.20	116.28	121.22	125.70
TREAS BILLS OUTSTANDING	109.9	135.1	167.3	188.1	191.0	197.0	202.6	207.6	212.3	217.3	221.8
TREAS BONDS + NOTES OUTSTANDING	162.0	181.4	212.3	232.0	230.9	235.3	240.1	245.6	250.8	255.6	259.5
VOLUME OF CORPORATE ISSUES	2.10	3.25	3.00	3.01	3.10	3.21	3.41	3.70	4.00	4.30	4.56
TOTAL CORP BONDS OUTSTANDING	217.3	244.9	275.1	301.8	313.2	328.2	345.0	362.4	379.7	396.9	411.9
NON-BANK COMMERCIAL PAPER	40.35	44.46	51.85	61.20	66.96	72.59	78.12	83.79	89.39	94.91	100.50
BANK RELATED COMMERCIAL PAPER	7.19	7.90	7.80	9.01	8.09	8.04	8.18	8.32	8.47	8.64	8.87
FEDERAL FUNDS VOLUME, 46 BANKS	20.2	21.4	23.9	26.2	27.9	30.1	32.6	34.1	36.0	38.2	40.6
FEDERAL AGENCY DEBT	77.95	85.93	87.20	90.87	102.92	109.77	116.20	122.60	128.97	135.14	140.90

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 7.1 -- PERSONAL CONSUMPTION EXPENDITURES IN CURRENT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
NET PURCHASES OF NEW CARS	34.6	32.0	42.0	49.7	46.4	47.9	56.8	63.0	66.7	70.0	72.6	12.15
NET PURCHASES OF USED CARS	2.8	3.0	3.6	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.5	8.36
MOBILE HOMES	4.9	4.4	6.4	7.1	7.0	7.7	9.2	9.7	10.4	11.4	12.3	15.89
TIRES AND AUTO PARTS	7.4	8.7	10.6	11.7	12.2	13.0	13.8	14.9	16.0	17.2	18.3	9.55
AUTOMOBILES AND PARTS	49.7	48.2	62.6	72.3	62.9	64.3	84.3	92.4	98.1	103.8	108.8	11.84
MAJOR HOUSEHOLD APPLIANCES	27.7	27.1	28.9	31.6	32.3	33.0	36.3	39.8	42.4	45.6	49.1	7.83
FURNITURE AND FURNISHINGS	31.2	31.4	35.3	38.9	40.6	42.7	48.3	55.3	61.2	67.4	73.8	9.03
OTHER CONSUMER DURABLES	19.1	21.2	23.4	26.1	28.2	30.3	33.4	37.1	40.7	44.5	48.4	9.34
TOTAL DURABLE GOODS	127.5	127.8	149.5	168.0	170.8	178.8	202.3	224.5	242.6	261.4	280.1	9.63
FOOD AND BEVERAGES	187.7	207.0	229.6	259.4	285.2	307.9	334.2	364.1	396.2	430.9	468.6	10.06
CLOTHING AND SHOES	74.1	78.1	84.7	93.2	98.1	103.6	112.9	123.3	134.0	145.0	156.0	7.66
GAS AND OIL	35.9	38.8	42.4	45.9	48.9	51.0	53.7	57.4	61.6	66.0	70.5	6.71
OTHER CONSUMER NONDURABLES	82.4	86.6	96.2	107.1	117.4	127.7	141.0	156.2	172.1	188.6	204.8	10.25
TOTAL NONDURABLE GOODS	380.2	410.5	452.9	505.6	549.6	590.3	641.8	701.0	763.8	830.5	899.9	9.35
HOUSING SERVICES	126.4	138.5	151.5	167.2	180.7	192.2	206.4	223.7	242.5	262.0	282.2	8.30
HOUSEHOLD OPERATION	52.9	59.3	64.6	71.0	78.2	84.8	91.3	98.5	106.7	115.6	125.2	9.02
TRANSPORTATION SERVICES	26.1	28.9	30.5	33.5	37.2	39.9	42.4	45.5	49.3	53.8	58.6	8.00
OTHER CONSUMER SERVICES	163.6	175.8	196.7	224.7	250.2	275.0	306.7	347.7	392.5	440.6	491.6	11.78
TOTAL SERVICES	369.0	402.4	443.2	496.5	546.4	591.9	646.8	715.4	791.1	872.0	957.6	9.96

TABLE 7.2 -- PERSONAL CONSUMPTION EXPENDITURES DEFLATED BY COMPONENTS OF THE CPI WHERE THEY APPLY INSTEAD OF BY CONSUMPTION DEFLECTORS. FOR THIS REASON THEY DO NOT ADD TO CONSUMPTION IN 1958 AS GIVEN IN TABLE 2.1. PAGE 4

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
NET PURCHASES OF NEW CARS	29.5	24.7	29.6	33.0	29.2	28.6	32.5	34.8	35.9	36.7	37.1	5.66
NET PURCHASES OF USED CARS	2.3	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.83
MOBILE HOMES	3.9	3.2	4.3	4.7	4.5	4.8	5.5	5.6	5.8	6.1	6.3	11.56
TIRES AND AUTO PARTS	6.1	6.4	7.4	7.8	8.0	8.2	8.6	8.9	9.2	9.6	9.9	5.83
AUTOMOBILES AND PARTS	41.8	36.5	43.7	47.8	44.0	44.0	49.0	51.8	53.5	55.0	56.0	6.10
MAJOR HOUSEHOLD APPLIANCES	25.2	22.8	22.8	23.6	22.9	22.4	23.9	25.6	26.9	28.6	30.3	.99
FURNITURE AND FURNISHINGS	22.9	21.4	23.3	23.6	23.3	23.6	25.8	28.6	30.7	32.8	34.7	3.78
OTHER CONSUMER DURABLES	13.8	13.7	13.9	14.4	14.4	14.4	15.1	16.0	16.9	17.7	18.3	1.96
TOTAL DURABLE GOODS	103.8	94.4	102.6	109.3	104.6	104.5	113.9	122.1	128.0	134.0	139.4	3.83
FOOD AND BEVERAGES	116.0	117.6	119.4	124.4	124.7	123.6	124.7	128.2	132.4	136.4	140.2	1.18
CLOTHING AND SHOES	54.5	54.8	56.3	58.3	57.9	58.2	60.8	63.7	66.5	69.1	71.5	2.11
GAS AND OIL	22.6	24.1	25.4	26.5	27.0	27.4	28.1	29.1	30.1	31.1	32.0	3.06
OTHER CONSUMER NONDURABLES	58.6	54.7	56.4	58.7	59.6	60.4	62.6	65.6	68.6	71.4	73.6	2.73
TOTAL NONDURABLE GOODS	251.8	251.3	257.4	267.9	269.3	269.6	276.2	286.7	297.7	308.1	317.4	1.91
HOUSING SERVICES	97.1	100.6	104.5	109.0	111.7	113.3	116.4	121.3	126.6	131.7	136.3	2.96
HOUSEHOLD OPERATION	38.9	39.1	39.6	40.3	40.9	41.1	41.5	42.4	43.9	45.7	47.3	1.22
TRANSPORTATION SERVICES	18.4	19.1	19.1	20.0	20.9	21.4	21.7	22.2	22.9	23.5	24.1	2.55
OTHER CONSUMER SERVICES	88.4	82.6	82.5	81.7	81.0	81.6	86.0	92.0	96.6	99.7	101.3	.81
TOTAL SERVICES	242.7	241.4	245.7	251.0	254.6	257.5	265.6	277.9	290.0	300.6	309.0	1.93
NEW PASSENGER CAR SALES, TOTAL	9.00	7.90	9.65	10.74	9.70	9.72	11.21	12.09	12.44	12.72	12.90	7.24
NEW PASSENGER CAR SALES, DOMESTIC	7.57	6.22	7.80	8.78	7.70	7.67	9.09	9.88	10.12	10.30	10.37	7.88
NEW PASSENGER CAR SALES, FOREIGN	1.43	1.68	1.85	1.96	2.00	2.05	2.12	2.21	2.32	2.42	2.53	4.72
UNIT VALUE, NEW CARS, '8000	3.85	4.05	4.35	4.63	4.79	4.92	5.06	5.21	5.36	5.50	5.63	4.58

PLEASE NOTE THAT THE COMPONENTS OF THE CPI CORRESPONDING TO THIS TABLE ARE GIVEN IN TABLE 11.1

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1976
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 8.1 -- INVESTMENT EXPENDITURES IN CURRENT DOLLARS

ANNUALIZED COMPOUND
 GROWTH RATES, YEARS=
 75-80 80-84 75-84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75-80	80-84	75-84
FIXED NONRESIDENTIAL INVESTMENT	149.2	149.5	173.0	202.6	213.5	219.5	251.5	292.0	331.3	373.7	421.2	10.96	13.76	12.18
TOTAL NONRES STRUCTURES	52.0	54.3	60.7	70.0	76.8	81.1	90.0	100.9	115.1	132.8	151.4	10.65	13.87	12.05
COMMERCIAL STRUCTURES	16.0	15.2	18.0	20.7	24.3	28.4	33.5	37.2	41.6	48.4	56.6	17.09	13.98	15.68
INDUSTRIAL STRUCTURES	7.8	8.6	9.9	13.2	13.4	11.8	13.0	14.5	16.6	19.5	22.2	8.67	14.19	11.08
OTHER NONRES STRUCTURES	28.3	30.5	32.8	36.2	39.1	40.8	43.5	49.1	56.9	64.9	72.7	7.38	13.69	10.13
PRODUCERS DURABLE EQUIPMENT	97.1	95.2	112.3	132.6	136.7	138.4	161.4	191.1	216.1	241.0	269.8	11.13	15.71	12.25
MANUFACTURING SECTOR	45.8	45.1	49.4	61.0	64.4	61.9	70.1	85.7	100.7	115.4	131.4	9.21	17.03	12.61
OTHER FIXED BUS INV, OBE-SEC	66.4	67.8	78.1	89.8	95.1	99.2	112.1	127.6	143.0	160.0	179.3	10.59	12.46	11.41
RESIDENTIAL STRUCTURES	46.0	42.1	58.3	58.0	50.7	70.6	96.8	105.1	106.6	109.8	112.5	18.09	3.85	11.52
TOTAL NONFARM PRIVATE	45.2	41.4	57.5	57.1	49.8	69.6	93.7	104.0	105.4	108.6	111.2	18.23	3.82	11.58
NEW FAMILY DWELLING UNITS	36.9	33.3	48.9	47.9	48.9	58.6	83.3	88.8	86.8	90.8	92.3	19.85	2.91	11.99
SINGLE-FAMILY DWELLINGS	25.7	26.0	35.9	34.2	31.6	43.8	59.0	61.0	56.5	52.9	51.1	17.81	-3.52	7.79
MULTI-FAMILY DWELLINGS	11.3	7.3	13.0	13.7	8.9	14.8	23.3	27.8	32.4	37.9	41.2	26.20	15.31	21.22
ADDITIONS AND ALTERATIONS	8.3	8.2	8.5	9.2	9.3	11.0	13.4	15.2	16.6	17.8	18.9	10.44	8.94	9.77
CHANGE IN INVENTORIES	14.2	-12.5	7.6	13.5	-8.5	-11.4	6.3	24.0	28.6	27.9	27.3	.00*	44.38	.00*

TABLE 8.2 -- INVESTMENT EXPENDITURES IN 1958 DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75-80	80-84	75-84
FIXED NONRESIDENTIAL INVESTMENT	94.0	82.8	89.6	98.5	96.1	93.7	103.1	114.7	123.7	131.6	138.0	4.48	7.36	5.83
TOTAL NONRES STRUCTURES	26.2	25.1	25.6	27.1	27.9	28.2	29.9	31.6	33.8	36.2	37.9	3.58	6.14	6.71
COMMERCIAL STRUCTURES	8.1	7.0	7.6	8.0	8.8	9.9	11.1	11.7	12.2	13.2	14.2	9.62	6.24	8.10
INDUSTRIAL STRUCTURES	3.9	4.0	4.2	5.1	4.9	4.1	4.3	4.6	4.9	5.3	5.6	1.73	6.45	3.80
OTHER NONRES STRUCTURES	14.2	14.1	13.8	14.0	14.2	14.2	14.4	15.4	16.7	17.7	18.2	.52	5.98	2.91
PRODUCERS DURABLE EQUIPMENT	67.8	57.7	64.0	71.4	68.2	65.5	73.2	83.1	89.9	95.5	100.1	4.87	8.12	6.29
MANUFACTURING SECTOR	28.9	25.0	25.6	29.6	29.0	26.4	28.7	33.7	37.6	40.6	43.1	2.82	10.65	6.22
OTHER FIXED BUS INV, OBE-SEC	41.8	37.5	40.5	43.6	42.8	42.3	46.0	50.1	53.4	56.4	58.8	4.15	6.32	5.11
RESIDENTIAL STRUCTURES	24.0	19.8	25.2	23.2	19.9	26.9	34.8	35.2	33.2	31.8	30.5	11.98	-3.24	4.94
TOTAL NONFARM PRIVATE	23.6	19.4	24.8	22.8	19.5	26.5	34.4	34.8	32.8	31.4	30.1	12.13	-3.28	4.99
NEW FAMILY DWELLINGS	19.3	15.6	21.1	19.2	15.8	22.3	29.6	29.7	27.6	26.2	25.0	13.68	-4.12	5.39
SINGLE-FAMILY DWELLINGS	13.4	12.2	15.5	13.7	12.4	16.7	21.2	20.4	17.6	15.3	13.8	11.73	-10.12	1.43
MULTI-FAMILY DWELLINGS	5.9	3.4	5.6	5.5	3.5	5.6	6.4	9.3	10.0	11.0	11.2	19.73	7.43	14.09
ADDITIONS AND ALTERATIONS	4.3	3.8	3.7	3.7	3.6	4.2	4.8	5.1	5.2	5.1	5.1	4.70	1.48	3.25
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	2.71	.00	1.49
CHANGE IN INVENTORIES	8.7	-7.5	4.2	6.9	-2.2	-5.1	2.6	9.6	11.0	10.2	9.3	.00*	37.46	.00*

TABLE 8.3 -- OTHER VARIABLES IN INVESTMENT SECTOR

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75-80	80-84	75-84
SINGLE-FAMILY HOUSING STARTS	.88	1.06	.88	.84	1.20	1.44	1.32	1.13	.98	.89	.89	10.36	-11.37	.11
MULTI-FAMILY HOUSING STARTS	.45	.35	.54	.29	.53	.76	.83	.92	1.01	1.03	1.03	16.46	7.96	12.59
TOTAL PRIVATE STARTS	1.34	1.23	1.60	1.37	1.14	1.73	2.20	2.14	2.04	1.99	1.92	12.24	-3.37	5.01
NUMBER OF MOBILE HOMES, SAAR	.33	.29	.43	.49	.50	.53	.61	.63	.65	.69	.72	15.83	4.11	10.46
TOTAL STARTS INCL MOBILE HOMES	1.67	1.53	2.03	1.85	1.64	2.27	2.81	2.77	2.70	2.68	2.64	12.97	-1.59	6.24
AVG. PRICE S-F HOUS STARTS	20.67	22.75	24.85	26.85	28.84	30.67	41.47	45.13	48.80	52.68	56.42	6.11	8.00	6.94
AVG. PRICE M-F HOUS STARTS	20.67	22.75	24.85	26.85	28.84	30.67	41.47	45.13	48.80	52.68	56.42	7.10	5.52	6.39
DUMMY VBL. FOR INV. TAX CREDIT	.035	.056	.077	.055	.070	.085	.100	.100	.100	.100	.100	8.70	4.15	6.85
VACANCY RATE, RESIDENCES	6.2	6.0	5.9	5.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	-3.66	.00	-2.05

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 ANNUALIZED COMPOUND GROWTH RATES, YEARS- 75-80 80-84 75-84

TABLE 8.3 CONTINUED

RENTAL COST, EQUIPMENT	.270	.270	.265	.282	.279	.255	.230	.213	.211	.210	.212	-3.12	-1.99	-2.62
RENTAL COST, STRUCTURES	.303	.286	.297	.300	.287	.258	.236	.229	.227	.230	.236	-3.59	-1.19	-2.09
DEPRECIATION FACTOR, EQUIPMENT	.771	.776	.776	.776	.776	.776	.776	.776	.776	.776	.776	.00	.00	.00
DEPRECIATION FACTOR, STRUCTURES	.520	.520	.520	.520	.520	.520	.520	.520	.520	.520	.520	.00	.00	.00
NEW ORDERS, DEFLATED	54.4	44.6	50.5	55.9	55.5	53.8	57.3	63.2	67.7	71.2	74.1	5.15	6.64	5.80
INDEX OF IND. PROD., MFG	124.0	109.1	120.2	129.6	125.3	122.4	132.6	149.3	154.6	162.2	168.6	3.97	6.20	4.95
FULL CP INDEX OF INDUS PROD	144.0	142.0	150.1	159.4	161.4	161.1	168.0	179.0	188.6	197.3	206.2	3.52	5.13	4.23
INDEX OF CAPACITY UTILIZATION	86.14	76.84	80.00	81.32	77.64	75.99	78.50	81.17	82.01	82.20	81.77	.43	1.02	.69

TABLE 9.1 -- IMPORTS, EXPORTS, AND THEIR PRICE DEFLECTORS
 -- EXPORTS AND IMPORTS IN CURRENT DOLLARS

EXPORTS OF AGRICULTURAL GOODS	22.2	23.8	25.2	26.2	27.9	29.6	31.4	33.3	35.3	37.5	39.6	5.72	5.96	5.82
EXPORTS OF PETROLEUM PRODUCTS	.8	.9	.9	.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	11.04	11.28	11.13
EXPORTS OF NEW CARS	4.7	5.1	5.9	6.6	6.9	7.1	7.3	7.5	7.9	8.1	8.3	7.23	3.26	5.44
EXPORTS OF SERVICES	40.8	37.3	40.2	43.2	45.3	49.0	53.2	57.4	61.4	66.1	71.0	7.37	7.47	7.41
EXPORTS OF OTHER GOODS	71.8	80.6	95.8	109.6	124.6	137.3	151.6	168.2	183.3	197.8	216.4	13.47	9.29	11.58
IMPORTS OF AGRICULTURAL GOODS	10.5	8.9	9.3	10.7	10.5	11.1	11.7	12.4	13.2	14.0	14.8	5.69	6.02	5.83
IMPORTS OF PETROLEUM PRODUCTS	24.3	29.2	33.5	34.7	35.0	35.0	35.0	35.0	35.0	35.0	35.0	3.67	.00	2.02
IMPORTS OF NEW CARS	6.9	7.4	9.2	10.5	11.6	12.8	14.3	16.1	18.2	20.6	23.2	14.05	12.93	13.54
IMPORTS OF SERVICES	36.4	36.8	40.0	43.2	47.4	51.8	56.0	60.6	65.7	71.6	75.8	8.76	7.84	8.34
IMPORTS OF OTHER GOODS	60.1	61.9	79.6	91.0	101.4	110.8	126.3	143.1	154.7	167.9	184.8	15.33	9.99	12.91

TABLE 9.2 -- EXPORTS AND IMPORTS IN 1958 DOLLARS

EXPORTS OF AGRICULTURAL GOODS	11.9	13.3	13.1	12.8	12.6	12.5	12.6	13.0	13.5	13.8	14.1	-1.13	3.01	.69
EXPORTS OF PETROLEUM PRODUCTS	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	3.93	5.09	4.44
EXPORTS OF NEW CARS	3.9	4.0	4.3	4.5	4.4	4.3	4.2	4.2	4.1	4.0	3.9	1.18	-1.86	-1.18
EXPORTS OF SERVICES	21.0	17.0	16.9	17.0	16.7	17.2	17.7	18.2	18.6	19.1	19.4	.89	2.30	1.51
EXPORTS OF OTHER GOODS	34.9	32.7	36.3	38.8	41.8	44.3	46.8	49.5	51.5	52.8	54.5	7.44	3.86	5.63
IMPORTS OF AGRICULTURAL GOODS	5.1	4.7	4.9	5.1	5.2	5.4	5.5	5.7	5.9	6.1	6.2	3.38	3.23	3.31
IMPORTS OF PETROLEUM PRODUCTS	5.8	6.6	6.9	6.8	6.4	6.0	5.7	5.3	5.0	4.7	4.5	-2.94	-5.37	-4.12
IMPORTS OF NEW CARS	5.8	5.5	6.4	6.9	7.1	7.5	8.0	8.6	9.3	10.0	10.9	7.71	8.11	7.88
IMPORTS OF SERVICES	16.6	14.5	14.0	13.9	14.4	15.0	15.3	15.6	16.0	16.4	16.5	1.03	1.92	1.42
IMPORTS OF OTHER GOODS	29.5	25.6	27.9	28.1	29.4	30.2	32.0	33.6	33.5	33.6	34.5	4.54	1.93	3.37

TABLE 9.3 -- UNIT VALUE INDICES AND PRICE INDICES OF WORLD TRADE

IMPLICIT DEFLECTOR, TOTAL EXP	195.0	220.0	237.2	254.4	271.8	285.5	300.3	314.8	329.3	346.2	365.8	6.42	5.06	5.81
IMPLICIT DEFLECTOR, NON AG EXP	198.2	234.9	251.9	269.4	285.5	298.1	312.7	328.9	345.6	364.6	386.7	5.89	5.45	5.69
IMPLICIT DEFLECTOR, OTHER EXP	205.9	246.4	264.1	282.5	297.8	309.6	323.7	339.4	356.0	374.8	397.0	5.61	5.24	5.44
IMPLICIT DEFLECTOR, TOTAL IMP	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1	7.64	5.81	6.82
IMPLICIT DEFLECTOR, NON AG IMP	189.3	227.8	248.0	265.0	274.0	285.2	300.0	315.1	331.1	348.0	365.0	5.66	5.03	5.37
IMPLICIT DEFLECTOR, OTHER IMP	202.8	241.5	264.5	324.3	344.9	367.4	394.7	425.8	461.6	500.1	535.3	10.32	7.92	9.23
IMPLICIT DEFLECTOR, EXPORTS NEW CARS	120.3	128.7	137.5	146.5	156.0	164.0	172.1	181.1	190.9	200.9	211.0	5.98	5.22	5.64
IMPLICIT DEFLECTOR, IMPORTS NEW CAR	119.3	134.1	144.2	153.1	162.5	170.1	178.9	187.1	196.0	204.9	213.0	5.92	5.27	5.64
PRICE INDEX, PETROLEUM IMPORTS	416.6	445.1	487.5	509.0	544.7	583.5	619.4	656.6	696.1	737.4	779.0	6.83	5.80	6.41
INTL TRADE PRICE, MFG. GOODS	196.0	210.5	222.5	233.1	240.6	250.1	260.1	270.8	281.1	292.0	303.0	4.32	3.89	4.13
INDEX OF WORLD TRADE VOLUME	325.0	331.5	348.0	372.9	401.2	428.7	455.1	482.2	511.1	541.3	574.0	6.54	5.97	6.28

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON MAY 23 1975

ANNUALIZED COMPOUND GROWTH RATES, YEARS-75-80 80-84 75-84

1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE RECESSION IN 1978

LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT, HOURS AND WAGES, AND LABOR COSTS AND PRODUCTIVITY

TABLE 10.1 -- EMPLOYMENT AND UNEMPLOYMENT

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
POPULATION, 16 AND OVER	148.59	151.16	153.75	156.40	158.77	161.01	163.25	165.20	167.06	168.70	170.10
CIVILIAN LABOR FORCE	91.07	92.70	95.14	97.55	99.27	100.46	101.90	103.45	104.95	106.34	107.63
EMPLOYMENT, ARMED FORCES	2.23	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
EMPLOYMENT, CIVILIAN GOVERNMENT	14.28	14.91	15.33	15.73	16.09	16.53	17.05	17.59	18.12	18.70	19.08
SELF EMPLOYED, INCL FARM	7.64	7.47	7.50	7.49	7.40	7.30	7.20	7.10	7.00	6.90	6.80
EMPLOYMENT, MANUFACTURING	20.01	18.06	19.33	20.49	19.64	18.65	19.54	20.69	21.34	21.66	21.89
EMPLOYMENT, CONSTRUCTION	3.99	3.50	3.61	3.83	3.86	4.01	4.39	4.62	4.74	4.90	5.01
EMPLOYMENT, OTHER PRIVATE	40.05	40.44	41.61	42.78	43.75	44.02	44.31	45.23	46.27	47.27	48.35
NUMBER OF EMPLOYEES	78.33	76.91	79.68	82.82	83.33	83.21	85.30	88.12	90.48	92.52	94.33
NUMBER OF UNEMPLOYED	5.10	6.32	7.75	7.24	6.53	9.95	9.41	6.23	7.48	6.93	6.51
UNEMPLOYMENT RATE	5.60	8.98	8.15	7.42	8.59	9.90	9.23	7.96	7.12	6.51	6.04
UNEMPLOYMENT RATE, MARRIED MEN	2.69	5.31	4.52	3.84	4.87	5.99	5.36	4.22	3.49	2.97	2.57

TABLE 10.2 -- HOURS AND WAGES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
HOURS WORKED PER WEEK, MFG.	40.0	39.0	39.5	39.6	38.9	38.7	39.0	39.4	39.4	39.4	39.3
HOURS WORKED PER WEEK, CONSTR.	36.8	37.0	37.4	36.8	36.5	36.5	36.5	36.5	36.5	36.5	36.5
HOURS WORKED PER WEEK, OTHER	34.3	34.1	33.9	33.6	33.4	33.3	33.3	33.2	33.1	33.0	32.9
HOURS WORKED PER WEEK, TOTAL	36.6	36.1	36.2	36.1	35.7	35.6	35.7	35.7	35.7	35.6	35.5
HOURLY WAGE RATE, MFG.	4.40	4.81	5.27	5.77	6.26	6.77	7.34	7.92	8.48	9.07	9.71
HOURLY WAGE RATE, CONSTRUCTION	6.75	7.25	7.78	8.33	8.94	9.53	10.10	10.77	11.57	12.47	13.48
HOURLY WAGE RATE, OTHER PRIVATE	3.83	4.13	4.57	5.06	5.48	5.93	6.40	6.87	7.35	7.87	8.44
HOURLY WAGE RATE, TOTAL PRIVATE	4.18	4.49	4.94	5.46	5.89	6.36	6.89	7.41	7.94	8.50	9.12
WAGE RATE, GOVT CIVILIAN	4.61	4.87	5.18	5.51	5.94	6.42	6.93	7.49	8.09	8.74	9.34
WAGE RATE, MILITARY	4.57	4.89	5.18	5.56	5.93	6.34	6.79	7.26	7.77	8.32	8.83

TABLE 10.3 -- LABOR COSTS AND PRODUCTIVITY

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
UNIT LABOR COSTS, MFG.	.673	.973	1.045	1.130	1.224	1.312	1.390	1.460	1.531	1.606	1.685
UNIT LABOR COSTS, CONSTR.	.853	.917	.951	1.059	1.143	1.133	1.134	1.226	1.306	1.395	1.499
UNIT LABOR COSTS, OTHER PRIVATE	.678	.951	1.048	1.162	1.306	1.416	1.480	1.556	1.652	1.763	1.894
UNIT LABOR COSTS, ALL PRIVATE	.928	1.020	1.103	1.207	1.338	1.438	1.503	1.575	1.661	1.756	1.865
UNIT LABOR COSTS, BLS 1967=100.	146.6	161.4	174.5	190.7	210.8	226.3	236.6	247.7	261.0	275.9	292.9
LABOR PRODUCTIVITY, MFG.	6.120	6.127	6.216	6.313	6.480	6.707	6.888	7.052	7.266	7.513	7.754
LABOR PRODUCTIVITY, CONSTR.	8.631	9.043	9.406	9.124	9.134	9.854	10.215	10.261	10.381	10.500	10.569
LABOR PRODUCTIVITY, OTHER PRIV.	4.888	4.873	4.902	4.911	4.762	4.780	4.972	5.105	5.181	5.238	5.252
LABOR PROD., TOTAL PRIVATE	5.502	5.453	5.531	5.561	5.488	5.592	5.820	5.984	6.107	6.224	6.302
LABOR PROD., BLS 1967 = 100.	110.6	110.2	112.1	113.3	112.5	115.2	120.1	123.9	126.9	129.9	132.0

TABLE 10.4 -- OUTPUT ORIGINATING BY SECTOR

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
MANUFACTURING SECTOR	254.9	224.2	246.9	266.3	257.6	251.6	272.4	298.6	317.8	333.3	346.5
CONSTRUCTION SECTOR	67.5	60.8	66.2	66.9	66.9	75.0	85.1	89.9	93.5	97.6	100.6
NON MANUFACTURING SECTOR	407.2	409.9	424.3	437.0	433.2	437.7	458.3	480.2	498.6	515.0	528.2
FARM SECTOR	27.5	27.3	29.3	30.7	32.0	32.7	33.2	33.6	34.1	34.5	35.0
GOVERNMENT SECTOR	64.1	65.9	67.3	68.7	70.0	71.6	73.4	75.3	77.2	79.2	80.5

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Appendix G

Simulations of the Macroeconomic Model for Increases in
NASA R & D Spending of \$1.0 Billion, \$0.5 Billion, and \$0.1 Billion

In this appendix we present the complete simulations of the Chase Econometrics macroeconomic model under alternative hypotheses about NASA R & D spending. In each case we made proportional changes as follows:

- 1) We raised Federal government purchases of nondefense goods and services by \$1.0 (\$0.5, \$0.1) billion in 1958 dollars.
- 2) We adjusted the term for maximum output in the economy by proportional factors given in the text. In each case we used the two-year lag between R & D spending and any changes in γ . Thus the title "CS6 changes lagged 2 yrs" refers to this fact. CS6 indicates that the adjustment for maximum output in the economy is the 56th equation in the model. Altogether the model contains 125 stochastic equations and 105 exogenous variables. Each of the stochastic equations can be adjusted by changing the value of the constant term in that equation.

The summary statistics for each of these runs are given in Tables 4.2 - 4.4. We have included the complete simulation results in this appendix so that the reader may compare any of the 465 variables in the model which are not given in these tables.

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION - BASED ON MAY - C56 LAGGED 2 YRS

TABLE 1.1A -- GROSS NATIONAL PRODUCT IN CURRENT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	7.9	5.3	13.2	11.9	6.9	7.9	11.9	11.4	9.9	9.6	9.3
CONSUMPTION EXPENDITURES	8.9	7.4	11.2	12.0	8.2	7.5	9.6	10.2	9.6	9.3	8.9
AUTOMOBILES AND PARTS	-13.6	-2.6	29.6	15.3	-3.5	4.8	16.3	10.0	6.4	6.1	5.4
OTHER DURABLE GOODS	7.0	2.2	9.3	10.9	4.6	4.7	11.1	11.6	8.8	8.6	8.1
NONDURABLE GOODS	12.5	8.0	10.4	11.6	8.7	7.3	8.5	9.0	8.7	8.5	8.0
SERVICES	9.5	9.2	10.3	12.1	10.1	8.4	9.6	11.0	10.9	10.6	10.3
GROSS PRIVATE INVESTMENT	.0	-14.0	33.3	14.2	-3.7	5.9	27.7	19.4	10.8	9.7	10.0
FIXED INVESTMENT	.6	-1.6	20.5	12.4	1.6	9.9	20.3	14.3	10.3	10.5	10.6
NONRESIDENTIAL	9.1	.5	15.9	17.0	5.5	2.8	14.7	16.5	13.5	12.9	12.8
STRUCTURES	10.7	4.5	12.0	15.4	9.9	5.7	11.3	12.4	14.5	15.7	14.5
EQUIPMENT	8.1	-1.6	18.2	17.8	3.1	1.2	16.7	18.7	13.0	11.4	11.9
RESIDENTIAL STRUCTURES	-19.6	-8.2	36.9	-1.1	-12.2	40.4	38.0	8.9	1.5	3.2	3.1
NONFARM	-20.2	-8.2	37.2	-1.2	-12.5	41.0	38.5	8.9	1.4	3.2	3.1
EXPORTS	39.6	5.4	13.8	11.0	10.3	9.0	9.2	9.3	8.0	7.5	8.3
IMPORTS	43.2	4.8	19.0	10.2	8.7	7.7	10.1	10.3	7.5	8.0	8.3
GOVERNMENT PURCHASES	11.9	12.2	10.2	9.9	9.6	9.6	9.9	10.1	10.1	10.5	9.8
FEDERAL	9.7	14.5	9.5	9.2	7.8	8.3	8.9	9.2	9.2	9.3	9.3
NATIONAL DEFENSE	5.8	11.7	8.6	8.3	7.2	7.4	7.9	8.3	8.3	8.4	8.3
OTHER	18.6	20.2	11.1	10.9	8.9	10.0	10.6	10.6	10.6	10.8	10.9
STATE AND LOCAL	13.3	10.9	10.7	10.4	10.8	10.4	10.5	10.6	10.7	11.1	10.0

TABLE 1.2A -- OTHER MAJOR ECONOMIC INDICATORS (PERCENT CHANGE, ANNUAL RATES)

GNP IN 1958 DOLLARS	-2.1	-3.8	5.9	4.2	-1.1	1.1	6.5	6.4	4.8	4.1	3.4
IMPLICIT GNP DEFLATOR	10.3	9.0	6.9	7.4	8.1	6.7	5.1	4.7	5.0	5.3	5.7
CONSUMER PRICE INDEX	11.0	9.0	8.0	8.4	8.7	7.0	5.4	4.9	4.9	5.1	5.2
WHSL PRICE INDEX, TOTAL	18.8	10.1	7.4	8.2	8.1	6.2	6.1	4.6	4.0	4.9	5.8
WHSL PRICE INDEX (INDUS COMM)	22.1	11.1	6.3	8.1	6.9	4.9	5.7	4.9	4.3	5.2	6.8
INDEX OF INDUS PROD, TOTAL	.9	-10.9	10.1	7.7	-2.8	-1.8	8.1	9.5	6.5	5.2	4.6
INDEX OF INDUS PROD, MFG.	.9	-11.4	10.3	7.7	-3.3	-2.2	8.8	10.2	6.8	5.3	4.5
DISPOSABLE PERSONAL INCOME	8.4	9.7	11.5	10.9	8.0	8.3	10.1	9.6	9.2	9.0	8.6
CORP PROFITS BEFORE TAX	14.7	-20.9	27.8	15.7	-13.6	-2	28.6	17.4	8.5	10.4	11.6
CORP PROFITS AFTER TAX	16.7	-16.2	26.3	12.7	-12.9	-1	26.2	16.2	7.5	9.3	10.5
MONEY SUPPLY, NO TIME DEP (M1)	5.3	7.6	7.6	4.2	3.6	5.5	6.9	6.9	6.0	5.6	3.8
MONEY SUPPLY +TD -CD (M2)	7.9	9.5	8.6	5.7	5.6	8.2	9.2	8.6	7.3	6.7	5.1
MONEY SUPPLY WITH TIME DEP	11.2	8.5	8.8	6.1	5.9	8.1	8.9	8.3	7.2	6.6	5.1

TABLE 1.2B -- OTHER MAJOR ECONOMIC INDICATORS (ACTUAL CHANGE)

TREASURY BILL RATE, 91-DAY	.85	-1.70	1.67	1.51	.31	-1.58	-1.59	-.62	.30	.38	.92
COMMERCIAL PAPER RATE, 4-6 MO	1.68	-3.84	2.09	1.97	.23	-1.75	-1.85	-.74	.30	.41	1.02
AA CORPORATE RATE, NEW ISSUES	1.52	.56	1.13	.64	-.50	-1.65	-1.28	-.71	-.21	.04	.33
INDEX OF CAPACITY UTILIZATION	-4.06	-8.86	3.12	1.14	-3.88	-1.91	2.60	2.28	.40	-.17	.09
NEW PASSENGER CAR SALES, SAAR	-2.54	-1.04	1.74	1.06	-1.03	.06	1.58	.97	.39	.34	.30
TOTAL PRIVATE HOUSING STARTS	-.71	-.10	.34	-.23	-.22	.61	.48	-.06	-.10	-.05	-.06
UNEMPLOYMENT RATE	.8	3.3	-.9	-.7	1.2	1.3	-.7	-1.4	-.9	-.7	-.5
PERSONAL SAVINGS RATE	-.3	2.0	.3	.8	-.2	.7	.5	-.5	-.3	-.3	-.3
FEDERAL GOVT SURPLUS OR DEF	-2.5	-78.5	6.4	22.7	-8.0	-17.8	9.3	17.9	7.8	7.5	12.1

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

TABLE 2.1 -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
												75-80 80-84 75-84
GROSS NATIONAL PRODUCT	821.2	790.2	836.5	871.7	862.1	871.7	928.6	988.0	1035.0	1077.4	1114.1	3.28 4.66 3.89
CONSUMPTION EXPENDITURES	539.5	534.0	551.6	571.7	572.5	577.0	602.7	635.7	666.8	696.6	724.2	2.45 4.70 3.44
DURABLE GOODS	103.1	94.9	103.3	109.2	104.1	103.8	113.1	121.5	127.6	133.6	139.3	3.57 5.36 4.35
NONDURABLE GOODS	223.7	224.0	229.5	238.7	240.3	241.1	248.0	258.4	269.1	279.4	289.4	2.06 3.94 2.89
SERVICES	212.6	215.1	218.8	223.8	228.1	232.1	241.6	255.8	270.2	283.6	295.4	2.35 3.58
GROSS PRIVATE INVESTMENT	126.7	95.5	119.6	128.8	116.0	116.0	141.8	162.1	170.9	177.2	182.4	8.22 6.50 7.44
FIXED INVESTMENT	118.0	102.8	115.0	121.7	116.1	121.0	138.8	151.4	158.8	165.9	171.8	6.18 5.48 5.86
NONRESIDENTIAL	94.0	83.0	90.0	98.8	96.5	94.1	103.8	116.1	125.5	133.9	141.0	4.57 7.95 6.05
STRUCTURES	26.2	25.1	25.6	27.2	28.0	28.3	31.7	34.0	36.5	38.5	38.5	3.62 6.46 4.86
EQUIPMENT	67.8	57.9	64.4	71.6	68.5	65.8	73.8	84.3	91.5	97.4	102.5	4.97 8.54 6.53
RESIDENTIAL STRUCTURES	24.0	19.8	24.9	22.9	19.7	26.9	35.0	35.4	33.3	32.0	30.8	12.06 -3.10 5.04
NONFARM	23.6	19.4	24.5	22.5	19.3	26.5	34.6	35.0	32.9	31.6	30.4	12.20 -3.14 5.10
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	2.71 .00 1.49
CHANGE IN INVENTORIES	8.7	-7.3	4.6	7.1	-2.2	-5.0	3.0	10.6	12.1	11.3	10.6	.00* 36.75 .00*
NONFARM	7.4	-7.0	4.6	7.1	-2.2	-5.0	3.0	10.6	12.1	11.3	10.6	.00* 36.75 .00*
FARM	1.2	-.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00* .00* .00*
NET EXPORTS OF GOODS AND SERV	9.0	10.1	10.5	12.6	13.1	14.4	14.9	15.8	17.6	18.3	18.4	8.03 5.46 6.87
EXPORTS	71.9	67.2	70.8	73.3	75.7	78.6	81.6	85.2	88.0	90.1	92.3	3.97 3.13 3.60
IMPORTS	62.9	57.0	60.3	60.8	62.7	64.1	66.7	69.4	70.4	71.8	73.9	3.18 2.59 2.92
GOVERNMENT PURCHASES	146.0	150.5	154.7	158.6	160.6	164.2	169.2	174.5	179.7	185.3	189.1	2.36 2.82 2.56
FEDERAL	56.5	59.2	60.3	61.2	60.6	60.6	62.8	64.0	65.0	65.9	65.9	.80 1.70 1.20
NATIONAL DEFENSE	38.1	38.9	39.3	39.6	38.8	38.6	38.9	39.3	39.7	40.1	40.2	.00 .84 .38
OTHER	18.5	20.3	21.0	21.7	21.6	22.0	22.7	23.5	24.2	25.0	25.7	2.26 3.12 2.64
STATE AND LOCAL	89.5	91.4	94.4	97.4	100.2	103.6	107.6	111.7	115.8	120.2	123.2	3.32 3.45 3.37

TABLE 2.2 -- IMPLICIT PRICE DEFATORS FOR GNP

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
												75-80 80-84 75-84
GROSS NATIONAL PRODUCT	170.2	186.2	199.1	213.9	231.3	246.7	259.2	271.4	284.9	299.9	316.9	6.84 5.16 6.08
CONSUMPTION EXPENDITURES	162.5	176.3	189.8	205.1	221.6	236.2	247.8	258.8	270.4	282.9	296.3	7.05 4.57 5.94
DURABLE GOODS	123.7	134.9	145.0	158.6	164.2	172.4	179.1	184.9	190.0	195.1	200.2	5.83 2.82 4.47
NONDURABLE GOODS	170.0	183.3	197.4	211.9	228.8	244.7	258.1	270.2	282.1	294.7	307.3	7.09 4.46 5.91
SERVICES	173.5	187.2	202.9	222.4	240.3	256.0	269.5	282.5	296.7	312.5	330.9	7.56 5.27 6.53
FIXED INVESTMENT	165.3	186.8	201.4	214.1	227.9	240.3	252.1	264.2	277.9	294.1	314.2	6.18 5.66 5.94
NONRESIDENTIAL	158.7	180.6	192.9	205.8	222.3	234.3	243.5	253.6	266.2	281.6	301.9	6.16 5.52 5.87
STRUCTURES	198.7	216.8	237.8	258.4	275.7	288.5	303.1	321.7	343.6	370.2	402.7	6.93 7.36 7.11
EQUIPMENT	143.2	164.9	175.1	189.8	200.5	210.9	219.4	228.0	237.4	248.3	264.1	5.87 4.75 5.37
RESIDENTIAL	191.4	212.9	231.8	249.9	255.0	261.6	277.6	299.0	322.0	346.4	370.4	5.45 7.48 6.34
NONFARM	191.6	213.1	232.2	250.4	255.5	261.8	277.8	299.3	322.4	346.9	371.0	5.44 7.51 6.35
FARM	183.5	198.0	208.5	220.2	231.2	245.0	259.8	275.5	291.7	309.4	325.6	5.59 5.80 5.68
CHANGE IN INVENTORIES	161.5	167.4	178.4	194.5	213.0	223.1	235.3	246.4	256.7	269.6	287.4	7.05 5.12 6.18
EXPORTS	195.0	220.0	237.3	254.4	271.7	285.4	300.0	314.3	328.6	345.1	364.4	6.40 4.98 5.76
IMPORTS	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1	7.64 5.81 6.82
GOVERNMENT PURCHASES	211.8	230.5	247.2	265.1	287.1	307.9	328.4	350.5	374.8	401.8	432.2	7.33 7.11 7.23
FEDERAL	206.8	226.0	242.8	261.3	285.9	308.4	330.4	353.7	379.2	407.7	439.7	7.89 7.41 7.67
STATE AND LOCAL	215.0	233.4	250.0	267.5	287.9	307.5	327.2	348.6	372.4	398.6	428.1	6.99 6.95 6.97
ADDI GOVT OUTPUT ORIGINATING	250.8	266.7	284.5	302.3	321.1	341.2	363.1	386.2	411.1	437.1	460.6	6.36 6.13 6.25

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION - BASED ON MAY - C56 LAGGED 2 YRS

TABLE 2.1A -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	-2.1	-3.8	5.9	4.2	-1.1	1.1	6.5	6.4	4.8	4.1	3.4
CONSUMPTION EXPENDITURES	-2.3	-1.0	3.3	3.6	.1	.8	4.4	5.5	4.9	4.5	4.0
DURABLE GOODS	-9.2	-8.0	8.8	5.8	-4.7	-3	9.0	7.5	5.0	4.8	4.3
NONDURABLE GOODS	-2.2	.1	2.5	4.0	.7	.3	2.9	4.2	4.1	3.9	3.6
SERVICES	1.3	1.2	1.7	2.2	1.9	1.8	4.1	5.9	5.6	5.0	4.2
GROSS PRIVATE INVESTMENT	-8.3	-24.6	25.2	7.7	-9.9	-0	22.3	14.3	5.5	3.7	2.9
FIXED INVESTMENT	-7.3	-12.9	11.8	5.8	-4.6	-4.2	14.7	9.1	4.9	4.5	3.5
NONRESIDENTIAL STRUCTURES	-4	-11.7	8.5	9.7	-2.4	-2.5	10.3	11.8	8.1	6.7	5.2
EQUIPMENT	3.1	-4.2	2.1	6.2	3.1	1.0	5.9	6.0	7.1	7.4	5.3
RESIDENTIAL STRUCTURES	-1.7	-14.6	11.2	11.1	-4.4	-3.9	12.2	14.2	8.5	6.5	5.2
NONFARM	-27.0	-17.6	25.9	-8.2	-14.1	36.7	30.1	1.2	-5.8	-4.1	-3.6
FARM	-27.6	-17.7	26.1	-8.3	-14.3	37.5	30.5	1.2	-5.8	-4.1	-3.6
EXPORTS	7.9	-6.6	5.4	3.6	3.3	3.7	3.9	4.4	3.3	2.3	2.5
IMPORTS	1.5	-9.3	5.8	.8	3.1	2.3	4.0	4.0	1.4	1.9	3.0
GOVERNMENT PURCHASES	1.1	3.1	2.8	2.5	1.2	2.2	3.0	3.2	3.0	3.1	2.1
FEDERAL	-1.3	4.7	1.9	1.5	-1.4	.4	1.7	2.0	1.8	1.7	1.3
NATIONAL DEFENSE	-4.8	2.1	1.1	.6	-2.0	-5	.8	1.1	1.0	.8	.4
OTHER	6.8	9.9	3.5	3.1	2.4	2.0	3.3	3.4	3.1	3.1	2.8
STATE AND LOCAL	2.8	2.1	3.3	3.2	2.9	3.4	3.8	3.8	3.7	3.8	2.5

TABLE 2.2A -- IMPLICIT PRICE DEFATORS FOR GNP (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	10.3	9.4	6.9	7.4	8.1	6.7	5.1	4.7	5.0	5.3	5.7
CONSUMPTION EXPENDITURES	11.4	8.5	7.7	8.1	8.1	6.6	4.9	4.4	4.5	4.6	4.8
DURABLE GOODS	7.8	9.1	7.4	6.6	6.2	5.0	3.9	3.2	2.7	2.7	2.6
NONDURABLE GOODS	14.9	7.8	7.7	7.3	7.9	6.9	5.5	4.7	4.4	4.5	4.3
SERVICES	8.1	7.9	8.4	9.6	8.0	6.5	5.3	4.8	5.0	5.3	5.9
FIXED INVESTMENT	8.5	13.0	7.8	6.3	6.5	5.5	4.9	4.8	5.2	5.8	6.8
NONRESIDENTIAL STRUCTURES	9.5	13.8	6.8	6.6	8.1	5.4	4.0	4.1	4.9	5.8	7.2
EQUIPMENT	7.2	9.1	9.7	8.7	6.7	4.6	5.0	6.1	6.8	7.7	8.8
RESIDENTIAL	10.2	15.2	6.2	6.1	7.9	5.2	4.0	4.0	4.1	4.6	6.3
NONFARM	10.0	11.2	8.9	7.8	2.1	2.6	6.1	7.7	7.7	7.6	6.9
FARM	10.1	11.2	8.9	7.8	2.0	2.5	6.1	7.7	7.7	7.6	7.0
CHANGE IN INVENTORIES	9.2	7.9	5.3	5.6	5.0	6.0	6.0	6.0	5.9	6.1	5.2
EXPORTS	30.2	3.7	6.6	9.0	9.5	4.7	5.5	4.7	4.2	5.0	6.6
IMPORTS	29.5	12.8	7.8	7.2	6.8	5.0	5.1	4.8	4.5	5.0	5.6
GOVERNMENT PURCHASES	41.2	15.4	12.5	9.4	5.4	5.2	5.9	6.0	6.0	6.0	5.2
FEDERAL	10.6	8.8	7.2	7.2	8.3	7.2	6.7	6.7	6.9	7.2	7.6
STATE AND LOCAL	11.2	9.3	7.4	7.6	9.4	7.9	7.1	7.1	7.2	7.5	7.8
ADDITIONAL GOVT OUTPUT ORIGINATING	10.2	8.6	7.1	7.0	7.6	6.8	6.4	6.5	6.8	7.0	7.4
ADDITIONAL GOVT OUTPUT ORIGINATING	5.2	6.3	6.7	6.2	6.2	6.3	6.4	6.4	6.4	6.3	5.4

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1984
 TABLE 4.1 -- PERSONAL INCOME AND ITS DISPOSITION

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
													75-80 80-84 75-84
PERSONAL INCOME	1150.5	1241.1	1396.8	1580.4	1694.8	1830.1	2009.2	2210.8	2420.9	2645.5	2881.6		10.11 9.43 9.80
WAGE AND SALARY DISBURSEMENTS	751.2	791.9	897.5	1011.7	1097.2	1185.3	1315.8	1458.6	1601.3	1751.7	1909.3		10.69 9.75 10.26
MANUFACTURING	211.3	210.2	244.8	279.0	291.3	306.0	344.6	388.8	425.1	458.6	490.2		10.39 9.21 9.86
CONSTRUCTION	51.5	48.8	54.8	61.1	65.7	72.9	84.9	95.4	105.5	117.7	130.7		11.71 11.40 11.56
OTHER NONFARM PRIVATE	323.2	352.4	401.0	456.8	504.2	545.8	597.6	654.4	716.4	782.6	861.0		11.14 9.56 10.42
FARM	66.4	7.0	7.9	9.0	9.8	10.7	11.6	12.6	13.5	14.4	15.4		10.65 7.31 9.15
GOVERNMENT	158.8	173.4	189.0	205.8	226.1	249.9	277.1	307.4	340.8	378.4	412.0		9.83 10.42 10.08
OTHER LABOR INCOME	51.4	58.3	66.4	75.4	86.4	99.4	114.4	131.5	151.3	173.9	196.2		14.44 14.45 14.43
PROPRIETORS INCOME	93.0	85.1	89.9	97.5	99.4	100.7	105.9	112.5	118.4	125.3	134.1		4.48 6.07 5.18
BUSINESS AND PROFESSIONAL FARM	61.2	62.7	63.6	66.3	66.7	66.8	70.9	76.3	81.0	86.6	94.1		2.51 7.33 4.82
FARM	31.8	22.4	26.3	31.2	32.7	33.9	35.0	36.2	37.4	38.7	40.0		9.32 3.39 6.64
RENTAL INCOME OF PERSONS	26.5	27.3	28.1	28.9	30.0	31.1	32.5	34.0	35.5	37.1	38.7		3.55 4.50 3.96
DIVIDENDS	32.7	34.9	38.9	43.3	45.6	46.6	50.0	57.0	64.2	70.2	76.7		7.47 11.29 9.14
PERSONAL INTEREST INCOME	103.8	117.9	136.9	158.8	179.5	194.7	208.1	224.8	245.4	267.8	291.1		12.04 8.75 10.56
TRANSFER PAYMENTS	139.8	176.2	194.8	215.5	235.7	259.9	281.2	303.1	328.0	355.9	386.2		9.80 8.26 9.10
OLD-AGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.0	141.8	154.6	168.5	183.7	200.4		11.11 9.03 10.17
UNEMPLOYMENT INSURANCE	7.1	18.0	16.4	15.6	18.8	22.2	21.1	18.5	16.9	15.9	15.1		3.28 -8.09 -1.93
VETERANS BENEFITS	16.1	18.8	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0		11.71 9.56 10.74
OTHER	46.9	55.7	61.5	67.3	71.9	78.2	85.6	93.9	102.9	112.9	123.7		8.97 9.63 9.25
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.9	79.0	87.7	98.7	110.8	123.2	136.4	150.8		14.42 11.19 12.96
PERSONAL TAX PAYMENTS	170.8	166.3	198.5	231.5	260.2	275.9	297.6	334.7	371.8	411.3	454.7		12.34 11.17 11.81
DISPOSABLE PERSONAL INCOME	979.7	1074.7	1198.6	1328.9	1434.6	1554.2	1711.4	1875.8	2048.9	2233.9	2426.6		9.75 9.12 9.46
PERSONAL OUTLAYS	902.7	968.1	1076.2	1204.5	1303.2	1400.3	1534.4	1690.5	1853.1	2026.1	2207.4		9.65 9.52 9.58
CONSUMPTION EXPENDITURES	876.7	941.3	1047.2	1172.6	1268.7	1363.3	1494.0	1645.7	1803.3	1970.8	2146.3		9.68 9.48 9.58
INTEREST PAID BY CONSUMERS	25.0	26.0	28.2	31.0	33.7	36.2	39.5	43.9	48.9	54.4	60.1		8.74 11.11 9.78
TRANSFERS TO FOREIGNERS	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9		.00 .00 .00
PERSONAL SAVING	77.0	106.6	122.4	124.4	131.4	153.8	177.1	185.4	195.8	207.8	219.2		10.68 5.48 8.33
DISPOSABLE INCOME 19588	602.8	609.7	631.3	647.9	647.4	657.9	690.5	724.6	757.6	789.6	818.9		2.52 4.36 3.33
PERSONAL SAVINGS RATE	7.9	9.9	10.2	9.4	9.2	9.9	10.4	9.9	9.6	9.3	9.0		.94 -3.33 -0.98

TABLE 4.2 -- ADDITIONAL EXOGENOUS VARIABLES USED IN INCOME DETERMINATION

SUPPLEMENTS TO WAGES, MFG.	39.2	42.1	48.8	57.5	66.3	76.1	87.5	100.6	115.8	133.1	150.2		15.76 14.46 15.16
SUPPLEMENTS, CONSTRUCTION	5.9	7.0	8.2	9.7	11.0	12.4	14.0	15.8	17.9	20.2	22.5		14.99 12.51 13.87
SUPPLEMENTS, OTHER PRIV NONFRM	39.5	42.5	49.6	58.0	66.4	76.7	88.3	101.5	116.8	134.2	151.5		15.72 14.45 15.14
SUPPLEMENTS, FARM	.5	.7	.8	.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7		14.00 6.94 10.79
SUPPLEMENTS, GOVERNMENT	19.9	22.7	26.0	28.9	30.8	33.3	36.2	39.2	42.2	45.2	47.8		9.81 7.21 8.64

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TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION - BASED ON MAY - C56 LAGGED 2 YRS
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
ANNUALIZED COMPOUND GROWTH RATES, YEARS- 75-80 80-84 75-84

TABLE 6.1 -- COMPONENTS OF THE MONEY SUPPLY

Table with columns for variables and years 1974-1984. Variables include CURRENCY, DEMAND DEPOSITS, GOVT DEMAND DEPOSITS, CONSUMER TIME DEPOSITS, CERTIFICATES OF DEPOSITS, MONEY SUPPLY (EXCL. TD), MONEY SUPPLY (INC. CONS. TD), MONEY SUPPLY (INCL. ALL TD), THRIFT DEPOSITS.

TABLE 6.2 -- INTEREST RATES

Table with columns for variables and years 1974-1984. Variables include DISCOUNT RATE (NY FED RES), FEDERAL FUND RATE, TREASURY BILL RATE, COMMERCIAL PAPER RATE, PRIMARY 90DAY CD RATE, PRIME COMMERCIAL BANK RATE, AAA CORPORATE RATE, AA UTILITY BOND RATE, AA CORPORATE RATE, AA INDUSTRIAL BOND RATE, MORTGAGE RATE.

TABLE 6.3 -- OTHER MONETARY INDICATORS

Table with columns for variables and years 1974-1984. Variables include NON-BORROWED MONETARY BASE, BORROWED RESERVES, EXCESS RESERVES OF FED RESERVE, FREE RESERVES, INDEX OF CREDIT RATIONING, BUS. LOANS AT LARGE COMM BANKS, ALL NON-BUS. LOANS, ADJUSTED, INV IN MUN + OTHER SECURITIES, TOTAL INV OF COMMERCIAL BANKS, TRES DEP AT FED RES BANKS, TRES. SEC. AT FOREIGN BANKS, TRES BILLS OUTSTANDING, TRES BONDS + NOTES OUTSTANDING, VOLUME OF CORPORATE ISSUES, TOTAL CORP BONDS OUTSTANDING, NON-BANK COMMERCIAL PAPER, BANK RELATED COMMERCIAL PAPER, FEDERAL FUNDS VOLUME, FEDERAL AGENCY DEBT.

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION - BASED ON MAY - CS6 LAGGED 2 YRS
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

TABLE 8.1 -- INVESTMENT EXPENDITURES IN CURRENT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
FIXED NONRESIDENTIAL INVESTMENT	149.2	149.9	173.8	203.3	214.4	220.4	232.9	294.5	334.2	377.3	425.7	11.02
TOTAL NONRES STRUCTURES	152.0	54.4	60.9	70.3	77.3	81.6	90.8	102.1	116.9	135.3	155.0	10.80
COMMERCIAL STRUCTURES	16.0	15.2	18.0	20.6	24.4	28.6	33.7	37.5	42.0	48.9	57.3	17.21
INDUSTRIAL STRUCTURES	7.8	8.7	10.0	13.4	13.7	12.1	13.4	15.1	17.5	20.6	23.8	9.14
OTHER NONRES STRUCTURES	28.3	30.5	32.9	36.3	39.2	41.0	43.7	49.5	57.5	65.0	73.9	7.47
PRODUCERS DURABLE EQUIPMENT	97.1	95.5	112.9	133.0	137.2	138.8	162.0	192.3	217.2	241.9	270.7	11.14
MANUFACTURING SECTOR	45.8	45.4	50.1	61.7	65.2	62.7	71.2	87.7	103.3	118.6	135.6	9.43
OTHER FIXED BUS INV, OBE-SEC	66.4	67.9	78.3	90.0	95.4	99.4	112.5	128.3	143.7	160.7	180.3	10.63
RESIDENTIAL STRUCTURES	46.0	42.2	57.8	57.1	50.1	70.4	97.1	105.7	107.3	110.8	114.2	18.14
TOTAL NONFARM PRIVATE	45.2	41.5	57.0	56.3	49.2	69.4	96.1	104.6	106.1	109.5	112.9	18.27
NEW FAMILY DWELLING UNITS	36.9	33.3	48.4	47.0	39.9	58.2	82.4	88.9	88.8	90.8	92.8	19.83
SINGLE-FAMILY DWELLINGS	25.7	26.0	35.5	33.4	31.1	43.4	58.7	60.5	55.4	51.2	48.9	17.66
MULTI-FAMILY DWELLINGS	11.3	7.3	12.9	13.5	8.8	14.8	23.7	28.4	33.5	39.7	43.9	26.49
ADDITIONS AND ALTERATIONS	8.3	8.2	8.6	9.3	9.4	11.2	13.7	15.7	17.3	18.7	20.1	10.87
CHANGE IN INVENTORIES	14.2	-12.1	8.3	13.7	-4	-11.1	7.2	26.2	31.0	30.4	30.4	.00*

TABLE 8.2 -- INVESTMENT EXPENDITURES IN 1958 DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
FIXED NONRESIDENTIAL INVESTMENT	94.0	83.0	90.0	98.8	96.5	94.1	103.8	116.1	125.5	133.9	141.0	4.37
TOTAL NONRES STRUCTURES	26.2	25.1	25.6	27.2	28.0	28.3	30.0	31.7	34.0	36.5	38.5	3.62
COMMERCIAL STRUCTURES	8.1	7.0	7.6	8.0	8.6	9.9	11.1	11.7	12.2	13.2	14.2	9.61
INDUSTRIAL STRUCTURES	3.9	4.0	4.2	5.2	4.2	4.4	4.4	4.7	5.1	5.6	5.9	2.06
OTHER NONRES STRUCTURES	14.2	14.1	13.8	14.0	14.2	14.2	14.4	15.4	16.7	17.8	18.4	.50
PRODUCERS DURABLE EQUIPMENT	67.8	57.9	64.4	71.6	68.5	65.8	73.8	84.3	91.5	97.4	102.5	4.97
MANUFACTURING SECTOR	28.9	25.2	25.9	30.0	29.3	26.8	29.2	34.5	38.8	42.1	44.9	3.04
OTHER FIXED BUS INV, OBE-SEC	41.8	37.6	40.6	43.7	42.9	42.4	46.2	50.6	54.0	57.1	59.7	4.21
RESIDENTIAL STRUCTURES	24.0	19.8	24.9	22.9	19.7	26.9	35.0	35.4	33.3	32.0	30.8	12.06
TOTAL NONFARM PRIVATE	23.6	19.4	24.5	22.5	19.3	26.5	34.6	35.0	32.9	31.6	30.4	12.20
NEW FAMILY DWELLINGS	19.3	15.6	20.8	18.8	15.6	22.2	29.6	29.7	27.6	26.2	25.0	13.69
SINGLE-FAMILY DWELLINGS	13.4	12.2	15.3	13.4	12.2	16.6	21.1	20.2	17.2	14.8	13.2	11.62
MULTI-FAMILY DWELLINGS	5.9	3.4	5.5	5.4	3.4	5.7	8.5	9.5	10.4	11.4	11.8	20.04
ADDITIONS AND ALTERATIONS	4.3	3.8	3.7	3.7	3.7	4.3	4.9	5.3	5.4	5.4	5.4	5.13
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	2.71
CHANGE IN INVENTORIES	8.7	-7.3	4.6	7.1	-2	-5.0	3.0	10.6	12.1	11.3	10.6	.00*

TABLE 8.3 -- OTHER VARIABLES IN INVESTMENT SECTOR

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
SINGLE-FAMILY HOUSING STARTS	.88	1.04	.86	.83	1.19	1.44	1.30	1.10	1.10	.95	.85	10.29
MULTI-FAMILY HOUSING STARTS	.45	.35	.48	.29	.54	.77	.85	.95	.95	1.06	1.10	16.80
TOTAL PRIVATE STARTS	1.34	1.24	1.57	1.34	1.12	1.73	2.21	2.15	2.05	2.01	1.95	12.31
NUMBER OF MOBILE HOMES, SAAR	.33	.30	.43	.48	.50	.53	.61	.62	.64	.68	.71	15.62
TOTAL STARTS INCL MOBILE HOMES	1.67	1.53	2.01	1.82	1.62	2.26	2.82	2.77	2.69	2.68	2.66	12.98
AVG. PRICE S-F HOUS START, \$000	28.20	30.87	34.14	37.41	38.16	38.64	41.45	45.15	48.86	52.80	56.69	6.07
AVG. PRICE M-F HOUS START, \$000	20.67	22.75	24.85	26.85	28.84	30.49	32.06	34.00	36.00	38.00	39.75	7.10
DUMMY VBL. FOR INV. TAX CREDIT	.035	.056	.077	.055	.070	.085	.100	.100	.100	.100	.100	8.70
VACANCY RATE, RESIDENCES	6.2	6.0	5.9	5.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	-3.66

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION = BASED ON MAY - C56 LAGGED 2 YRS
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985

LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT, HOURS AND WAGES, AND LABOR COSTS AND PRODUCTIVITY

TABLE 10.1 -- EMPLOYMENT AND UNEMPLOYMENT

POPULATION, 16 AND OVER	148.59	151.16	153.75	156.40	158.77	161.01	163.25	165.20	167.06	168.70	170.10	1.55	1.03	1.32
CIVILIAN LABOR FORCE	91.07	92.71	95.16	97.58	99.29	100.47	101.92	103.49	105.03	106.49	107.88	1.91	1.43	1.70
EMPLOYMENT, ARMED FORCES	2.23	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	.01	.00	.01
EMPLOYMENT, CIVILIAN GOVERNMENT	14.28	14.93	15.34	15.73	16.09	16.53	17.05	17.60	18.14	18.73	19.12	2.70	2.90	2.79
SELF EMPLOYED, INCL FARM	7.64	7.47	7.40	7.49	7.50	7.30	7.20	7.10	7.00	6.90	6.80	.74	-1.42	-1.04
EMPLOYMENT, MANUFACTURING	20.01	18.12	19.45	20.56	19.68	18.64	19.34	20.44	20.94	21.07	20.82	1.31	1.86	1.56
EMPLOYMENT, CONSTRUCTION	3.99	3.49	3.61	3.83	3.86	4.01	4.40	4.64	4.77	4.94	5.07	4.72	3.61	4.22
EMPLOYMENT OTHER PRIVATE	40.05	40.44	41.61	42.81	43.61	44.15	44.70	45.75	47.05	48.33	50.05	2.02	2.87	2.39
NUMBER OF EMPLOYEES	78.33	76.98	80.01	82.93	83.44	83.33	85.49	88.43	90.90	93.07	95.07	2.12	2.69	2.37
NUMBER OF UNEMPLOYED	5.10	8.25	7.65	7.16	8.45	9.84	9.23	7.96	7.14	6.52	6.02	2.27	-10.14	-3.44
UNEMPLOYMENT RATE	5.60	8.90	6.04	7.33	8.51	9.79	9.06	7.69	6.80	6.13	5.58	.36	-11.41	-5.05
UNEMPLOYMENT RATE, MARRIED MEN	2.69	5.23	4.41	3.76	4.79	5.89	5.20	3.98	3.19	2.62	2.15	.13	-19.83	-9.42

TABLE 10.2 -- HOURS AND WAGES

HOURS WORKED PER WEEK, MFG.	40.0	39.0	39.6	39.6	38.9	38.7	39.0	39.3	39.3	39.3	39.2	.00	.11	.05
HOURS WORKED PER WEEK, CONSTR.	36.8	37.0	37.4	36.8	36.5	36.5	36.5	36.5	36.5	36.5	36.5	.29	.00	.16
HOURS WORKED PER WEEK, OTHER	34.3	34.1	33.9	33.6	33.4	33.3	33.3	33.2	33.1	32.9	32.8	.46	.36	.41
HOURS WORKED PER WEEK, TOTAL	36.6	36.1	36.3	36.1	35.7	35.5	35.7	35.7	35.7	35.6	35.5	.26	.14	.21
HOURLY WAGE RATE, MFG.	4.40	4.81	5.27	5.77	6.26	6.77	7.34	7.92	8.48	9.07	9.75	6.62	7.35	8.13
HOURLY WAGE RATE, CONSTRUCTION	6.75	7.26	7.78	8.35	8.96	9.56	10.16	10.84	11.64	12.54	13.57	6.96	7.52	7.20
HOURLY WAGE RATE, OTHER	3.83	4.13	4.57	5.06	5.49	5.93	6.40	6.84	7.39	7.99	8.34	9.13	6.87	8.11
HOURLY WAGE RATE, TOTAL PRIVATE	4.18	4.49	4.95	5.45	5.90	6.36	6.88	7.39	7.90	8.44	9.05	8.91	7.07	8.08
WAGE RATE, GOVT CIVILIAN	4.81	4.87	5.18	5.51	5.94	6.42	6.93	7.49	8.09	8.74	9.34	7.34	7.73	7.51
WAGE RATE, MILITARY	4.57	4.69	5.18	5.56	5.93	6.34	6.79	7.26	7.77	8.32	8.83	6.81	6.77	6.78

TABLE 10.3 -- LABOR COSTS AND PRODUCTIVITY

UNIT LABOR COSTS, MFG.	.873	.969	1.042	1.126	1.217	1.299	1.361	1.418	1.473	1.530	1.577	7.02	3.75	5.55
UNIT LABOR COSTS, CONSTR.	.853	.916	.954	1.064	1.148	1.138	1.159	1.234	1.316	1.406	1.513	4.82	6.88	5.72
UNIT LABOR COSTS, OTHER PRIVATE	.878	.951	1.048	1.162	1.307	1.417	1.482	1.552	1.645	1.753	1.890	9.28	6.27	7.82
UNIT LABOR COSTS, ALL PRIVATE	.928	1.019	1.101	1.206	1.335	1.434	1.494	1.557	1.636	1.723	1.824	7.96	5.12	6.88
UNIT LABOR COSTS, BLS 1967=100.	146.6	161.2	174.2	190.4	210.4	225.7	235.1	245.0	257.2	270.8	286.5	7.84	5.06	6.59
LABOR PRODUCTIVITY, MFG.	6.120	6.143	6.225	6.330	6.511	6.773	7.031	7.280	7.569	7.947	8.423	2.74	4.62	3.57
LABOR PRODUCTIVITY, CONSTR.	8.831	9.051	9.382	9.103	9.116	9.839	10.209	10.241	10.348	10.456	10.518	2.44	.75	1.68
LABOR PRODUCTIVITY, OTHER PRIV.	4.888	4.875	4.907	4.912	4.761	4.776	4.955	5.092	5.160	5.207	5.182	.32	1.13	.68
LABOR PROD., TOTAL PRIVATE	5.502	5.460	5.538	5.566	5.495	5.604	5.847	6.030	6.169	6.300	6.392	1.38	2.25	1.76
LABOR PROD., BLS 1967 = 100.	110.6	110.3	112.2	113.4	112.7	115.5	120.8	125.1	128.6	132.0	134.7	1.84	2.74	2.24

TABLE 10.4 -- OUTPUT ORIGINATING BY SECTOR

MANUFACTURING SECTOR	254.9	225.9	249.1	268.2	259.5	253.8	276.1	304.3	324.9	342.1	357.6	4.09	6.68	5.23
CONSTRUCTION SECTOR	67.5	60.9	66.0	66.6	66.8	75.0	85.3	90.2	93.8	98.0	101.3	6.98	4.03	5.61
NON MANUFACTURING SECTOR	407.2	410.1	424.8	437.4	433.8	438.7	460.7	484.6	505.0	523.4	539.5	2.35	4.39	3.09
FARM SECTOR	27.5	27.3	29.3	30.7	32.0	32.7	33.2	33.6	34.1	34.5	35.0	3.94	1.34	2.78
GOVERNMENT SECTOR	64.1	65.9	67.4	68.8	70.0	71.6	73.4	75.3	77.2	79.3	80.7	2.18	2.39	2.27

ANNUALIZED COMPOUND GROWTH RATES, YEARS 75-80 80-84 75-84

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE 1 BILLION = BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 11.1 -- COMPONENTS OF THE CONSUMER PRICE INDEX

ANNUALIZED COMPOUND
 GROWTH RATES, YEARS
 75=80 80=84 75=84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75=80	80=84	75=84
NEW CARS	117.5	129.6	141.6	150.4	158.8	166.4	172.2	176.6	179.9	182.9	185.5	5.65	1.87	4.06
USED CARS	122.6	139.6	155.0	159.4	166.2	175.1	181.8	186.0	194.5	199.9	205.0	5.42	3.04	4.35
MOBILE HOMES	128.5	140.9	149.0	155.5	157.9	164.1	170.8	177.1	184.0	191.1	199.0	3.93	3.89	3.91
TIRES AND PARTS	123.9	137.1	145.0	152.4	155.9	160.0	163.2	169.9	175.6	181.8	187.8	3.54	3.57	3.55
AUTOMOBILES AND PARTS	119.2	131.9	143.0	151.0	157.9	164.7	170.3	175.4	179.6	183.6	187.4	5.24	2.42	3.97
APPLIANCES	109.7	118.6	126.5	133.7	140.3	145.7	149.1	151.1	151.9	152.4	152.4	4.68	.55	2.82
FURNITURE AND BEDDING	136.0	146.4	155.4	165.0	174.0	180.7	185.6	190.2	194.6	199.0	203.2	4.86	2.29	3.71
OTHER DURABLE COMMODITIES	138.0	154.4	167.4	180.8	195.5	208.6	218.2	226.4	234.1	242.3	250.5	7.16	3.51	5.32
HOUSEHOLD DURABLES	128.9	140.6	150.2	160.2	169.9	178.0	184.5	189.9	194.6	199.4	204.3	5.58	2.58	4.24
CONSUMER DURABLES	133.9	149.1	161.3	172.5	184.7	195.9	204.6	212.1	219.2	226.4	233.6	6.54	3.37	5.11
IMPLICIT DEFL. FOR DURABLES	123.1	135.3	145.4	154.2	162.8	170.3	175.6	180.4	184.5	188.5	192.0	5.36	2.26	3.97
FOOD	161.7	175.8	191.9	208.0	228.2	248.1	265.5	279.7	293.0	307.8	322.8	8.59	5.01	6.98
APPAREL COMMODITIES	136.1	142.3	150.3	159.8	169.3	177.1	183.3	189.3	195.1	200.9	206.1	5.20	2.96	4.19
GAS AND OIL	158.9	160.9	167.1	173.0	180.9	186.5	191.5	197.4	204.4	212.0	220.0	3.54	3.53	3.53
OTHER NONDURABLES	140.5	157.9	170.4	182.2	196.1	210.3	222.4	233.4	244.3	255.4	266.3	7.09	4.61	5.97
TOTAL NONDURABLES	151.0	163.2	175.7	188.4	203.7	218.0	230.1	240.7	251.0	262.1	273.1	7.12	4.37	5.89
RENT	130.2	137.6	145.0	153.4	161.9	169.8	177.4	184.5	191.5	198.6	206.4	5.21	3.86	4.60
UTILITIES	136.0	151.7	163.1	176.4	191.5	206.4	220.4	232.8	243.3	253.0	264.2	7.75	4.64	6.35
TRANSPORTATION SERVICES	141.9	157.4	169.3	186.2	197.8	217.3	230.7	245.7	261.9	279.9	294.5	5.41	5.66	5.52
OTHER SERVICES	185.3	212.9	238.7	275.5	309.8	338.0	358.1	379.3	408.2	444.4	488.5	10.96	8.08	9.66
TOTAL SERVICES	152.0	166.7	180.5	198.0	215.0	230.5	244.2	258.3	273.8	291.2	311.2	7.94	6.25	7.18
CONSUMER PRICE INDEX	147.7	161.0	173.8	188.4	204.7	219.0	231.0	242.2	254.0	266.9	280.7	7.48	5.00	6.36

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

TABLE 11.2 -- OTHER PRICE VARIABLES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75=80	80=84	75=84
GOVT TRANSFERS, MEDICAL INSURAN	11.6	13.7	15.7	21.1	25.7	30.3	32.2	33.8	35.5	37.3	38.8	16.56	4.75	12.20
WAGE AND PRICE CONTROL VBL.	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00*	.00*	.00*
PRICES RECEIVED BY FARMERS	185.9	179.3	192.2	204.0	221.5	236.8	249.9	256.8	262.5	271.1	279.8	6.87	2.87	5.07
WPI, FOOD	177.4	186.7	204.4	221.5	244.8	266.5	284.9	297.0	307.8	321.4	335.0	8.82	4.13	6.70
WPI, REFINED PETROLEUM PRODUCTS	223.3	244.7	257.7	269.2	289.7	307.7	326.4	346.1	366.4	388.4	411.1	5.93	5.94	5.93
WPI, METALS AND METAL PRODUCTS	171.9	187.4	196.0	216.9	233.3	242.4	253.5	265.6	278.1	297.6	329.0	6.23	6.73	6.45
WPI, MACHINERY + TRANSPOR. EQUI	136.8	157.9	168.4	179.8	195.8	206.4	215.4	224.6	234.7	246.7	264.4	6.41	5.26	5.89
WPI, OTHER	144.3	163.1	174.7	186.9	197.5	209.2	223.3	234.5	243.4	253.9	266.9	6.49	4.55	5.62
WPI, INDUSTRIAL COMMODITIES	153.8	170.9	181.7	196.4	209.9	220.2	232.8	244.1	254.6	267.8	286.0	6.37	5.28	5.88
WPI, ALL COMMODITIES	160.1	176.3	189.4	204.9	221.5	235.3	249.7	261.3	271.8	285.0	301.6	7.21	4.83	6.14

TABLE 11.3 -- VARIOUS CAPITAL STOCKS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75=80	80=84	75=84
NEW CAR REGISTRATIONS	138.7	132.6	130.9	135.4	137.5	136.9	140.7	148.2	155.7	162.5	168.8	1.19	4.65	2.71
PRODUCERS DURABLE EQUIPMENT	1119.8	1142.9	1163.8	1212.1	1253.8	1272.2	1303.2	1367.5	1451.1	1542.8	1637.9	2.66	5.88	4.08
TOTAL PRIVATE NONRES STRUCTURE	825.6	844.6	861.6	882.1	905.6	927.6	952.2	981.3	1015.6	1056.3	1101.4	2.43	3.71	2.99
MANUFACTURING SECTOR	477.5	490.6	494.5	511.6	530.5	536.6	543.3	566.2	602.6	645.8	692.2	2.06	6.24	3.89
OTHER PRIVATE SECTOR (OBE=SEC)	912.8	931.7	949.9	978.8	1006.2	1025.4	1050.5	1089.1	1136.2	1188.9	1244.8	2.43	4.33	3.27
RESIDENTIAL CONSTRUCTION	1425.4	1456.6	1500.5	1547.2	1577.8	1617.1	1690.1	1775.0	1851.2	1919.6	1981.6	3.02	4.06	3.48
INVENTORIES, CONSTANT PRICES	500.0	490.2	492.6	520.6	533.1	516.4	514.1	547.5	595.0	641.5	684.7	.96	7.42	3.78

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS

TABLE 1.1A -- GROSS NATIONAL PRODUCT IN CURRENT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	7.9	5.2	13.2	11.9	6.9	7.9	11.9	11.4	9.9	9.6	9.2
CONSUMPTION EXPENDITURES	8.9	7.3	11.2	12.0	8.2	7.4	9.6	10.1	9.6	9.3	8.9
AUTOMOBILES AND PARTS	-13.6	-2.8	29.7	15.3	-3.6	4.8	16.0	9.8	6.3	6.0	5.1
OTHER DURABLE GOODS	7.0	2.2	9.2	11.0	4.6	4.7	11.3	11.8	9.1	8.8	8.4
NONDURABLE GOODS	12.5	7.9	10.4	11.6	8.7	7.3	8.6	9.2	8.8	8.6	8.2
SERVICES	9.5	9.1	10.2	12.0	10.0	8.4	9.4	10.8	10.8	10.4	10.1
GROSS PRIVATE INVESTMENT	.0	-14.2	33.4	14.4	-3.8	5.8	27.6	19.1	10.7	9.7	9.9
FIXED INVESTMENT	.6	-1.7	20.6	12.5	1.4	9.9	20.2	14.2	10.3	10.5	10.5
NONRESIDENTIAL	9.1	.3	15.9	17.0	5.4	2.8	14.7	16.3	13.4	12.9	12.8
STRUCTURES	10.7	4.4	11.9	15.3	9.8	5.6	11.2	12.3	14.3	15.6	14.3
EQUIPMENT	8.1	-1.8	18.1	18.0	3.0	1.2	16.7	18.6	13.0	11.4	11.9
RESIDENTIAL STRUCTURES	-19.6	-8.2	37.6	-1.0	-12.5	40.0	37.7	8.7	1.4	3.2	2.8
NONFARM	-20.2	-8.2	37.9	-1.1	-12.8	40.6	38.1	8.7	1.4	3.1	2.7
EXPORTS	39.6	5.4	13.8	11.0	10.3	9.0	9.2	9.4	8.1	7.5	8.3
IMPORTS	43.2	4.6	19.0	10.3	8.6	7.6	10.0	10.1	7.4	7.9	8.1
GOVERNMENT PURCHASES	11.9	11.9	10.2	9.9	9.7	9.6	9.9	10.1	10.2	10.5	9.8
FEDERAL	9.7	13.5	9.5	9.0	8.0	8.3	8.9	9.2	9.2	9.3	9.3
NATIONAL DEFENSE	5.8	11.7	8.6	8.3	7.2	7.4	7.9	8.3	8.3	8.4	8.3
OTHER	18.6	17.2	11.2	10.4	9.5	10.1	10.7	10.8	10.7	10.9	11.0
STATE AND LOCAL	13.3	10.9	10.7	10.4	10.8	10.4	10.5	10.6	10.7	11.1	10.0

TABLE 1.2A -- OTHER MAJOR ECONOMIC INDICATORS (PERCENT CHANGE, ANNUAL RATES)

GNP IN 1958 DOLLARS	-2.1	-3.9	5.9	4.2	-1.1	1.1	6.4	6.2	4.6	3.9	3.2
IMPLICIT GNP DEFLATOR	10.3	9.4	6.9	7.4	8.2	6.7	5.2	4.9	5.1	5.4	5.9
CONSUMER PRICE INDEX	11.0	9.0	7.9	8.4	8.7	7.0	5.6	5.1	5.1	5.3	5.5
WHSL PRICE INDEX, TOTAL	18.8	10.1	7.5	8.2	8.1	6.3	6.3	4.8	4.2	5.1	6.1
WHSL PRICE INDEX (INDUS COMM)	22.1	11.1	6.3	8.1	6.9	5.0	5.8	5.1	4.5	5.4	7.0
INDEX OF INDUS PROD, TOTAL	-9	-11.0	10.1	7.7	-2.8	-1.8	7.9	9.2	6.2	5.0	4.3
INDEX OF INDUS PROD, MFG.	-9	-11.7	10.2	7.7	-3.3	-2.3	8.6	9.9	6.5	5.1	4.2
DISPOSABLE PERSONAL INCOME	8.4	9.7	11.5	10.9	7.9	8.3	10.1	9.6	9.2	9.0	8.5
CORP PROFITS BEFORE TAX	14.7	-21.3	28.1	15.8	-13.7	-3	28.3	17.1	8.3	10.3	11.1
CORP PROFITS AFTER TAX	16.7	-16.6	26.6	12.8	-13.0	-2	25.8	16.0	7.3	9.2	10.0
MONEY SUPPLY, NO TIME DEP (M1)	5.3	7.6	7.6	4.2	3.6	5.5	6.9	6.9	6.0	5.6	3.8
MONEY SUPPLY +TD -CD (M2)	7.9	9.6	8.6	5.7	5.6	8.2	9.2	8.6	7.3	6.7	5.1
MONEY SUPPLY WITH TIME DEP	11.2	8.5	8.8	6.1	5.9	8.1	8.9	8.3	7.2	6.6	5.1

TABLE 1.2B -- OTHER MAJOR ECONOMIC INDICATORS (ACTUAL CHANGE)

TREASURY BILL RATE, 91-DAY	.65	-1.71	1.66	1.51	.31	-1.59	-1.59	-.63	.29	.38	.91
COMMERCIAL PAPER RATE, 4-6 MO	1.68	-3.05	2.08	1.97	.23	-1.75	-1.84	-.74	.30	.40	1.01
AA CORPORATE RATE, NEW ISSUES	1.52	.55	1.12	.64	-.50	-1.65	-1.27	-.70	-.20	.03	.33
INDEX OF CAPACITY UTILIZATION	-4.06	-9.02	3.16	1.18	-3.83	-1.77	2.62	2.42	.60	-.01	-.16
NEW PASSENGER CAR SALES, SAAR	-2.54	-1.06	1.75	1.07	-1.04	.04	1.54	.92	.36	.32	.23
TOTAL PRIVATE HOUSING STARTS	-.71	-.10	.35	-.24	-.22	.60	.47	-.06	-.10	-.05	-.07
UNEMPLOYMENT RATE	.8	3.3	-.9	-.7	1.2	1.3	-.7	-1.3	-.9	-.6	-.5
PERSONAL SAVINGS RATE	-.3	2.0	.3	-.8	-.2	.8	.5	-.4	-.3	-.2	-.3
FEDERAL GOVT SURPLUS OR DEF	-2.5	-77.8	6.6	23.3	-8.3	-17.8	9.2	17.8	7.8	7.6	11.1

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

TABLE 2.1 -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	621.2	789.3	835.6	870.8	860.9	870.0	925.6	963.0	1028.0	1068.3	1102.1
CONSUMPTION EXPENDITURES	539.5	533.8	551.3	571.4	571.8	576.0	600.7	632.1	661.6	689.8	715.0
DURABLE GOODS	103.1	94.8	103.2	109.2	103.9	103.5	112.4	120.4	126.0	131.7	136.7
NONDURABLE GOODS	223.7	223.9	229.4	238.5	240.1	240.7	247.2	257.0	267.1	276.8	285.9
SERVICES	212.6	215.1	218.7	223.6	227.9	231.9	241.0	254.7	268.5	281.3	292.3
GROSS PRIVATE INVESTMENT	126.7	95.3	119.4	128.8	115.8	115.7	141.2	160.9	169.3	175.4	180.1
FIXED INVESTMENT	118.0	102.7	114.9	121.7	116.0	120.8	138.4	150.7	157.8	164.6	170.1
NONRESIDENTIAL	94.0	82.9	89.9	98.7	96.3	93.9	103.4	115.4	124.6	132.8	139.4
STRUCTURES	26.2	25.1	25.6	27.2	28.0	28.3	29.9	31.7	33.9	36.3	38.2
EQUIPMENT	67.8	57.8	64.3	71.5	68.3	65.6	73.5	83.7	90.7	96.4	101.2
RESIDENTIAL STRUCTURES	24.0	19.8	25.1	23.0	19.7	26.9	34.9	35.3	33.2	31.9	30.7
NONFARM	23.6	19.4	24.7	22.6	19.3	26.5	34.5	34.9	32.8	31.5	30.3
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4
CHANGE IN INVENTORIES	8.7	-7.4	4.5	7.0	-2	-5.1	2.8	10.2	11.5	10.7	9.9
NONFARM	7.4	-7.1	4.5	7.0	-2	-5.1	2.8	10.2	11.5	10.7	9.9
FARM	1.2	-0.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
NET EXPORTS OF GOODS AND SERV	9.0	10.2	10.6	12.6	13.1	14.5	15.0	16.1	18.0	18.7	19.0
EXPORTS	71.9	67.2	70.8	73.3	75.7	78.6	81.6	85.2	88.0	90.0	92.3
IMPORTS	62.9	57.0	60.3	60.8	62.6	64.1	66.6	69.1	70.0	71.3	73.3
GOVERNMENT PURCHASES	146.0	150.0	154.2	158.0	160.1	163.7	168.6	173.9	179.0	184.4	188.1
FEDERAL	56.5	58.7	59.8	60.6	59.9	60.1	61.0	62.2	63.2	64.2	65.0
NATIONAL DEFENSE	38.1	38.9	39.3	39.6	38.8	38.6	38.8	39.2	39.6	39.9	40.0
OTHER	18.5	19.8	20.5	21.0	21.1	21.5	22.2	22.9	23.7	24.4	25.0
STATE AND LOCAL	89.5	91.4	94.4	97.4	100.3	103.6	107.6	111.7	115.7	120.1	123.1

TABLE 2.2 -- IMPLICIT PRICE DEFLECTORS FOR GNP

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	170.2	186.2	199.0	213.8	231.3	246.8	259.6	272.3	286.3	301.8	319.6
CONSUMPTION EXPENDITURES	162.5	176.3	189.8	205.1	221.7	236.4	248.4	260.0	272.1	285.2	299.5
DURABLE GOODS	123.7	135.0	145.0	154.7	164.4	172.8	180.0	186.5	192.3	198.2	204.3
NONDURABLE GOODS	170.0	183.3	197.5	212.0	229.0	245.1	259.2	272.2	285.1	298.8	312.9
SERVICES	173.5	187.2	202.9	222.3	240.1	255.8	269.2	282.3	296.6	312.5	331.0
FIXED INVESTMENT	165.3	166.8	201.3	214.0	227.8	240.3	252.2	264.6	278.5	295.0	315.5
NONRESIDENTIAL	158.7	160.6	192.9	205.7	222.3	234.2	243.7	254.1	267.0	282.8	303.6
STRUCTURES	198.7	216.8	237.6	258.1	275.3	287.9	302.2	320.6	342.4	368.9	401.2
EQUIPMENT	143.2	164.9	175.1	185.8	200.5	211.1	219.8	228.9	238.8	250.3	266.8
RESIDENTIAL	191.4	212.8	231.7	249.8	255.1	261.6	277.6	298.9	321.7	346.5	369.5
NONFARM	191.6	213.0	232.0	250.4	255.6	261.8	277.8	299.2	322.1	346.5	370.1
FARM	183.5	198.0	208.5	220.2	231.2	245.0	259.8	291.7	309.4	325.6	351.6
CHANGE IN INVENTORIES	161.5	167.4	178.5	194.6	213.2	223.4	235.9	247.5	258.3	271.7	290.2
EXPORTS	195.0	220.0	237.2	254.4	271.7	285.5	300.1	314.5	329.0	345.6	365.1
IMPORTS	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1
GOVERNMENT PURCHASES	211.8	230.5	247.2	265.1	287.1	307.8	328.4	350.7	375.3	402.6	433.3
FEDERAL	206.8	226.0	242.8	261.3	285.9	308.6	330.8	354.6	380.6	409.7	442.4
STATE AND LOCAL	215.0	233.4	250.0	267.4	287.8	307.4	327.1	348.6	372.5	398.9	428.5
ADD: GOVT OUTPUT ORIGINATING	250.8	266.7	284.5	302.3	321.1	341.2	363.1	386.2	411.1	437.1	460.6

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS

TABLE 2.1A -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	-2.1	-3.9	5.9	4.2	-1.1	1.1	6.4	6.2	4.6	3.9	3.2
CONSUMPTION EXPENDITURES	-2.3	-1.1	3.3	3.6	.1	.7	4.3	5.2	4.7	4.3	3.7
DURABLE GOODS	-9.2	-8.1	8.9	5.8	-4.8	-4.4	8.7	7.1	4.6	4.5	3.8
NONDURABLE GOODS	-2.2	.1	2.5	4.0	.6	.3	2.7	3.9	3.9	3.6	3.3
SERVICES	1.3	1.2	1.7	2.2	1.9	1.7	4.0	5.7	5.4	4.8	3.9
GROSS PRIVATE INVESTMENT	-8.3	-24.8	25.3	7.8	-10.0	-1.1	22.0	13.9	5.3	3.5	2.7
FIXED INVESTMENT	-7.3	-12.9	11.9	5.9	-4.7	4.1	14.6	8.9	4.7	4.3	3.3
NONRESIDENTIAL	-4.4	-11.8	8.4	9.8	-2.4	-2.5	10.2	11.6	7.9	6.6	5.0
STRUCTURES	3.1	-4.3	2.1	6.2	3.0	1.0	5.9	5.8	7.0	7.3	5.1
EQUIPMENT	-1.7	-14.7	11.1	11.2	-4.5	-3.9	12.0	13.9	8.3	6.3	5.0
RESIDENTIAL STRUCTURES	-27.0	-17.5	26.6	-8.1	-14.4	36.4	29.8	1.0	-5.8	-4.1	-3.8
NONFARM	-27.6	-17.6	26.8	-8.2	-14.6	37.1	30.2	1.0	-5.8	-4.1	-3.8
EXPORTS	7.9	-6.6	5.4	3.6	3.3	3.7	3.9	4.4	3.3	2.3	2.5
IMPORTS	1.5	-9.5	5.8	.8	3.1	2.3	3.9	3.8	1.3	1.8	2.8
GOVERNMENT PURCHASES	1.1	2.8	2.8	2.5	1.3	2.2	3.0	3.1	2.9	3.0	2.0
FEDERAL	-1.3	3.8	2.0	1.3	-1.3	.4	1.6	1.9	1.7	1.6	1.2
NATIONAL DEFENSE	-4.8	2.1	1.1	.6	-2.0	-1.5	.7	1.0	.9	.7	.3
OTHER	6.8	7.2	3.5	2.6	.1	2.0	3.3	3.4	3.1	3.0	2.8
STATE AND LOCAL	2.8	2.1	3.3	3.2	2.9	3.4	3.8	3.8	3.6	3.8	2.4

TABLE 2.2A -- IMPLICIT PRICE DEFATORS FOR GNP (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	10.3	9.4	6.9	7.4	8.2	6.7	5.2	4.9	5.1	5.4	5.9
CONSUMPTION EXPENDITURES	11.4	8.5	7.7	8.1	8.1	6.6	5.1	4.6	4.7	4.8	5.0
DURABLE GOODS	7.8	9.1	7.4	6.7	6.3	5.1	4.2	3.6	3.1	3.1	3.1
NONDURABLE GOODS	14.9	7.9	7.7	7.4	8.0	7.0	5.7	5.0	4.7	4.8	4.7
SERVICES	8.1	7.9	8.4	9.6	8.0	6.5	5.3	4.9	5.1	5.4	5.9
FIXED INVESTMENT	8.5	13.0	7.8	6.3	6.4	5.5	5.0	4.9	5.3	5.9	6.9
NONRESIDENTIAL	9.5	13.8	6.8	6.6	8.1	5.4	4.0	4.3	5.1	5.9	7.4
STRUCTURES	7.2	9.1	9.6	8.6	6.6	4.6	5.0	6.1	6.8	7.7	8.7
EQUIPMENT	10.2	15.2	6.2	6.1	8.0	5.3	4.1	4.1	4.3	4.8	6.6
RESIDENTIAL	10.0	11.2	8.9	7.8	2.1	2.6	6.1	7.7	7.6	7.5	6.8
NONFARM	10.1	11.2	8.9	7.9	2.1	2.5	6.1	7.7	7.7	7.6	6.8
FARM	9.2	7.9	5.3	5.6	5.0	6.0	6.0	6.0	5.9	6.1	5.2
CHANGE IN INVENTORIES	30.2	3.7	6.6	9.0	9.5	4.8	5.6	4.9	4.4	5.2	6.8
EXPORTS	29.5	12.8	7.8	7.2	6.8	5.1	5.1	4.8	4.6	5.1	5.6
IMPORTS	41.2	15.4	12.5	9.4	5.4	5.2	5.9	6.0	6.0	6.0	5.2
GOVERNMENT PURCHASES	10.6	8.9	7.2	7.2	8.3	7.2	6.7	6.8	7.0	7.3	7.6
FEDERAL	11.2	9.3	7.4	7.6	9.4	7.9	7.2	7.2	7.3	7.6	8.0
STATE AND LOCAL	10.2	8.6	7.1	7.0	7.6	6.8	6.4	6.6	6.9	7.1	7.4
ADDT GOVT OUTPUT ORIGINATING	5.2	6.3	6.7	6.2	6.2	6.3	6.4	6.4	6.4	6.3	5.4

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .5BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1984
 TABLE 3.1 -- RELATION OF GNP/NATIONAL INCOME, AND PERSONAL INCOME

ANNUALIZED COMPOUND
 GROWTH RATES, YEARS-
 75-80 80-84 75-84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1984		
GROSS NATIONAL PRODUCT	1397.4	1469.9	1663.8	1862.0	1990.9	2147.8	2403.6	2677.0	2943.1	3225.0	3523.1	10.33	10.03	10.19
DEPRECIATION (CAJ), TOTAL	119.5	125.9	139.5	151.9	165.8	180.1	198.0	219.7	244.1	271.0	300.9	8.95	11.03	9.86
DEPRECIATION, CORP.	76.7	83.7	90.7	99.1	108.6	118.4	130.2	144.5	160.8	179.0	199.4	9.25	11.24	10.12
DEPRECIATION, NON-CORP.	42.8	45.1	48.8	52.8	57.2	61.7	67.8	75.2	83.2	92.0	101.5	8.40	10.63	9.38
NET NATIONAL PRODUCT	1278.0	1341.0	1524.3	1710.1	1825.0	1967.6	2205.6	2457.3	2699.0	2954.0	3222.2	10.46	9.94	10.22
INDIRECT BUSINESS TAXES	126.9	138.1	153.8	170.7	185.0	199.3	217.7	238.6	260.8	284.8	309.2	9.54	9.16	9.36
BUSINESS TRANSFER PAYMENTS	5.2	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.2	6.20	4.89	5.61
STATISTICAL DISCREPANCY	.4	4.3	6.2	1.9	-6.8	-4.9	-2	.5	1.3	-4.1	-5.6	.00*	.00*	.00*
SUBSIDIES LESS SURPLUSES	-2.9	-1.3	-0.8	-0.5	-2.8	-3.3	-3.7	-4.1	-4.6	-5.1	-5.6	.00*	.00*	.00*
NATIONAL INCOME	1142.5	1191.7	1357.5	1530.6	1637.2	1762.8	1976.8	2206.0	2423.9	2656.8	2902.3	10.65	10.08	10.39
CORPORATE PROFITS AND IVA	105.6	100.8	127.6	144.3	128.2	127.3	165.9	200.3	217.9	236.6	261.3	10.46	12.04	11.15
CONTRIBUTIONS FOR SOCIAL INSUR	101.5	106.9	119.6	152.4	170.1	188.8	213.4	240.3	267.9	297.1	328.7	14.82	11.41	13.28
WAGE ACCRUALS LESS DISBURSMNTS	-5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00*	.00*	.00*
GOVT TRANSFERS TO PERSONS	134.6	170.6	188.8	209.1	229.0	252.8	273.8	295.4	320.0	347.5	377.6	9.92	8.37	9.22
INTEREST PAID BY GOVT AND CONS	42.3	45.6	55.1	64.8	71.4	74.5	76.8	80.7	86.5	93.2	100.2	10.98	6.86	9.12
DIVIDENDS	32.7	34.8	38.8	43.3	45.5	46.5	49.8	56.7	63.7	69.7	76.0	7.41	11.14	9.05
BUSINESS TRANSFER PAYMENTS	5.2	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.2	6.20	4.89	5.61
PERSONAL INCOME	1150.5	1240.6	1395.9	1559.4	1693.5	1828.6	2007.4	2208.8	2418.7	2642.7	2876.1	10.10	9.41	9.78

TABLE 3.2 -- NATIONAL INCOME BY TYPE OF INCOME

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1984		
NATIONAL INCOME	1142.5	1191.7	1357.5	1530.6	1637.2	1762.8	1976.8	2206.0	2423.9	2656.8	2902.3	10.65	10.08	10.39
COMPENSATION OF EMPLOYEES	855.8	906.3	1030.3	1166.1	1272.0	1384.1	1542.4	1716.8	1895.4	2086.0	2280.9	11.22	10.28	10.79
WAGES AND SALARIES	750.7	791.3	896.8	1011.1	1096.4	1184.5	1315.0	1458.2	1601.2	1751.6	1907.2	10.69	9.74	10.26
PRIVATE	592.4	618.0	707.8	805.3	870.2	934.5	1037.9	1150.9	1260.7	1373.5	1495.7	10.93	9.57	10.31
MILITARY	21.2	23.4	23.7	25.4	27.1	29.0	31.1	33.2	35.6	38.1	40.4	6.82	6.77	6.79
GOVERNMENT CIVILIAN	137.1	151.0	165.2	180.3	199.0	220.9	246.0	274.1	305.0	340.0	371.1	10.25	10.82	10.49
SUPPLEMENTS TO WAGES AND SAL	105.1	115.0	133.5	155.1	175.6	199.7	227.3	258.6	294.2	334.4	373.7	14.61	13.23	13.98
EMPLOYER SOCIAL INSURANCE	53.6	58.6	64.0	81.6	91.1	101.2	114.8	129.6	144.8	160.7	178.0	15.17	11.60	13.56
OTHER LABOR INCOME	51.4	58.3	66.4	75.4	86.4	99.4	114.4	131.5	151.3	173.9	196.2	14.44	14.45	14.43
PROPRIETORS INCOME	93.0	85.0	89.9	97.4	99.3	100.4	105.3	111.4	116.9	123.4	131.5	4.37	5.71	4.96
BUSINESS AND PROFESSIONAL	61.2	62.6	63.6	66.2	66.5	66.5	70.3	75.2	79.5	84.7	91.5	2.34	6.81	4.30
FARM	31.8	22.4	26.3	31.2	32.7	33.9	35.0	36.2	37.4	38.7	40.0	9.32	3.39	6.64
RENTAL INCOME OF PERSONS	26.5	27.3	28.1	28.9	30.0	31.1	32.5	34.0	35.5	37.1	38.7	3.55	4.50	3.96
CORPORATE PROFITS AND IVA	105.6	100.8	127.6	144.3	128.2	127.3	165.9	200.3	217.9	236.6	261.3	10.46	12.04	11.15
PROFITS BEFORE TAX	140.7	110.7	141.9	164.3	141.8	141.4	181.4	212.5	230.1	253.6	281.9	10.38	11.65	10.93
MANUFACTURING	64.5	50.2	66.6	76.3	58.6	54.8	77.9	95.4	102.9	114.1	129.3	9.17	13.51	11.07
FINANCIAL	20.8	21.9	25.1	28.9	31.3	33.8	34.8	44.3	49.0	54.0	59.4	12.15	11.24	11.73
OTHER	55.4	38.6	50.2	59.2	52.0	52.8	64.7	72.6	78.2	85.7	93.1	10.89	9.53	10.27
PROFITS TAX LIABILITY	55.7	39.8	52.1	63.0	53.8	53.5	70.7	84.1	92.4	103.4	116.5	12.20	13.28	12.67
PROFITS AFTER TAX	85.0	70.9	89.8	101.3	88.1	88.0	110.7	128.3	137.7	150.3	165.4	9.31	10.57	9.86
DIVIDENDS	32.7	34.8	38.8	43.3	45.5	46.5	49.8	56.7	63.7	69.7	76.0	7.41	11.14	9.05
UNDISTRIBUTED PROFITS	52.4	36.1	50.9	58.0	42.6	41.5	60.9	71.7	73.9	80.7	89.4	11.02	10.09	10.60
INVENTORY VALUATION ADJ	-35.1	-9.9	-14.2	-20.0	-13.6	-14.1	-15.6	-12.2	-12.2	-17.2	-20.6	.00*	.00*	.00*
NET INTEREST	61.6	72.2	81.6	93.6	107.7	119.9	130.8	143.5	158.2	173.7	189.9	12.62	9.78	11.33

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1984
 VARIABLE NAME
 TABLE 4.1 -- PERSONAL INCOME AND ITS DISPOSITION

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
												75-80 80-84 75-84
PERSONAL INCOME	1150.5	1240.6	1395.9	1559.4	1693.5	1828.6	2007.4	2208.6	2418.7	2642.7	2876.1	10.10 9.41 9.78
WAGE AND SALARY DISBURSEMENTS	751.2	791.3	896.8	1011.1	1096.4	1184.5	1315.0	1458.2	1601.2	1751.6	1907.2	10.69 9.74 10.26
MANUFACTURING	211.3	209.7	244.2	278.5	291.0	306.0	345.5	390.5	427.9	462.4	496.4	10.50 9.48 10.04
CONSTRUCTION	51.5	48.8	54.8	61.1	65.6	72.7	84.6	95.0	104.9	116.8	129.6	11.63 11.25 11.45
OTHER NONFARM PRIVATE	323.2	352.5	401.0	456.6	503.8	545.2	596.2	652.8	714.4	779.8	854.4	11.08 9.41 10.33
FARM	6.4	7.0	7.9	9.0	9.8	10.7	11.6	12.6	13.5	14.4	15.4	10.65 7.31 9.15
GOVERNMENT	158.8	173.4	188.9	205.8	226.1	249.9	277.1	307.3	340.6	378.1	411.4	9.83 10.39 10.07
OTHER LABOR INCOME	51.4	58.3	66.4	75.4	86.4	99.4	114.4	131.5	151.3	173.9	196.2	14.44 14.45 14.43
PROPRIETORS INCOME	93.0	85.0	89.9	97.4	99.3	100.4	105.3	111.4	116.9	123.4	131.5	4.37 5.71 4.96
BUSINESS AND PROFESSIONAL FARM	61.2	62.6	63.6	66.2	66.5	66.5	70.3	75.2	79.5	84.7	91.5	2.34 6.81 4.30
	31.8	22.4	26.3	31.2	32.7	33.9	35.0	36.2	37.4	38.7	40.0	9.32 3.39 6.64
RENTAL INCOME OF PERSONS	26.5	27.3	28.1	28.9	30.0	31.1	32.5	34.0	35.5	37.1	38.7	3.55 4.50 3.96
DIVIDENDS	32.7	34.8	38.8	43.3	45.5	46.5	49.8	56.7	63.7	69.7	76.0	7.41 11.14 9.05
PERSONAL INTEREST INCOME	103.8	117.8	136.7	156.6	179.1	194.3	207.6	224.3	244.7	267.0	290.1	11.99 8.72 10.52
TRANSFER PAYMENTS	139.8	176.3	194.9	215.6	235.8	260.0	281.4	303.4	328.4	356.3	386.8	9.81 8.28 9.11
OLD-AGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.0	141.8	154.6	168.5	183.7	200.4	11.11 9.03 10.17
UNEMPLOYMENT INSURANCE	7.1	18.0	16.5	15.6	18.9	22.3	21.3	18.8	17.3	16.3	15.6	3.38 -7.42 -1.57
VETERANS BENEFITS	16.1	18.8	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0	11.71 9.56 10.74
OTHER	46.9	55.7	61.5	67.3	71.9	78.2	85.6	93.9	102.9	112.9	123.7	8.97 9.63 9.25
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.8	78.9	87.6	96.6	110.7	123.2	136.4	150.7	14.42 11.18 12.95
PERSONAL TAX PAYMENTS	170.8	168.2	198.3	231.3	260.0	275.6	297.4	334.5	371.6	411.2	453.9	12.35 11.15 11.80
DISPOSABLE PERSONAL INCOME	979.7	1074.3	1197.9	1328.1	1433.5	1552.9	1709.9	1874.2	2046.8	2231.3	2421.6	9.74 9.09 9.44
PERSONAL OUTLAYS	902.7	967.8	1075.6	1203.8	1302.3	1399.1	1532.8	1688.3	1850.2	2022.5	2202.7	9.63 9.49 9.56
CONSUMPTION EXPENDITURES	876.7	941.0	1046.6	1171.9	1267.7	1362.1	1492.5	1643.5	1800.5	1967.4	2141.9	9.66 9.45 9.56
INTEREST PAID BY CONSUMERS	25.0	26.0	28.2	31.0	33.7	36.2	39.4	43.8	48.8	54.2	59.9	8.72 11.03 9.73
TRANSFERS TO FOREIGNERS	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.00 .00 .00
PERSONAL SAVING	77.0	106.5	122.3	124.3	131.2	153.8	177.0	186.0	196.6	208.8	218.9	10.71 5.45 8.33
DISPOSABLE INCOME 1958\$	602.8	609.3	630.9	647.5	646.7	656.8	688.2	720.9	752.2	782.3	808.5	2.46 4.11 3.19
PERSONAL SAVINGS RATE	7.9	9.9	10.2	9.4	9.2	9.9	10.4	9.9	9.6	9.4	9.0	.97 -3.34 -.96

TABLE 4.2 -- ADDITIONAL EXOGENOUS VARIABLES USED IN INCOME DETERMINATION

SUPPLEMENTS TO WAGES, MFG.	39.2	42.1	48.8	57.5	66.3	76.1	87.5	100.6	115.8	133.1	150.2	15.76 14.46 15.16
SUPPLEMENTS, CONSTRUCTION	5.9	7.0	8.2	9.7	11.0	12.4	14.0	15.8	17.9	20.2	22.5	14.99 12.51 13.87
SUPPLEMENTS, OTHER PRIV NONFRM	39.5	42.5	49.6	58.0	66.4	76.7	88.3	101.5	116.8	134.2	151.5	15.72 14.45 15.14
SUPPLEMENTS, FARM	.5	.7	.8	.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	14.00 6.94 10.79
SUPPLEMENTS, GOVERNMENT	19.9	22.7	26.0	28.9	30.8	33.3	36.2	39.2	42.2	45.2	47.8	9.81 7.21 8.64

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .5BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 5.1 -- FEDERAL GOVERNMENT RECEIPTS AND EXPENDITURES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
FEDERAL GOVERNMENT RECEIPTS	291.1	273.6	321.4	387.4	414.5	438.1	489.8	554.1	614.2	679.2	749.8	12.35 11.23 11.84
PERSONAL INCOME TAXES	131.3	122.4	145.9	168.3	186.6	192.3	204.1	229.4	254.7	281.2	308.6	10.77 10.90 10.82
CORPORATE PROFITS TAXES	49.1	34.4	45.3	55.1	46.1	45.4	60.7	72.4	79.4	88.8	99.9	12.03 13.27 12.57
INDIRECT BUSINESS TAXES	22.0	24.1	26.2	28.6	30.7	32.6	35.2	38.3	41.5	44.9	48.3	7.82 8.26 8.01
CONTRIBUTIONS FOR SOCIAL INSUR	88.7	92.7	104.0	135.4	151.2	167.8	189.8	214.0	238.6	264.4	292.9	15.41 11.45 13.62
FEDERAL GOVERNMENT EXPENDITURE	299.1	359.5	400.7	443.5	479.0	520.2	562.8	609.3	661.6	719.1	778.5	9.38 8.45 8.95
PURCHASES OF GOODS AND SERVICE	116.9	132.7	145.3	158.4	171.1	185.3	201.9	220.4	240.6	263.1	287.6	8.76 9.25 8.97
NATIONAL DEFENSE	78.7	87.9	95.5	103.4	110.9	119.1	128.5	139.1	150.6	163.3	176.9	7.89 8.32 8.07
OTHER	38.2	44.8	49.8	55.0	60.2	66.3	73.4	81.3	90.0	99.8	110.7	10.38 10.83 10.57
TRANSFER PAYMENTS	117.0	150.0	166.3	184.5	201.9	223.2	241.2	259.3	280.1	303.4	328.8	9.97 8.06 9.11
OLD-AGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.0	141.8	154.6	168.5	183.7	200.4	11.11 9.03 10.17
VETERANS BENEFITS	16.0	18.8	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0	11.71 9.56 10.78
UNEMPLOYMENT INSURANCE	7.1	18.0	16.5	15.6	18.9	22.3	21.3	18.6	17.3	16.3	15.6	3.38 -7.42 -1.57
OTHER DOMESTIC	21.4	26.5	29.9	33.1	34.4	37.6	41.3	45.4	50.0	55.1	60.6	9.24 10.08 9.60
TO FOREIGNERS (NET)	2.6	2.9	3.0	3.1	3.6	3.9	4.1	4.4	4.6	4.9	5.1	7.30 5.58 6.82
GRANTS-IN-AID	43.8	52.0	56.3	60.3	64.3	69.7	78.7	89.1	99.6	110.0	118.2	8.65 10.70 9.55
NET INTEREST PAID	18.8	20.9	27.9	34.7	38.0	38.3	37.3	36.8	37.6	38.9	40.2	12.25 1.87 7.50
SUBSIDIES LESS CURRENT SURPLUS	2.1	3.9	4.9	5.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	-1.14 .00 -.63
SURPLUS OR DEFICIT (-)	-8.1	-85.9	-79.4	-56.1	-64.4	-82.2	-73.0	-55.2	-47.4	-39.9	-28.7	.00* .00* .00*

TABLE 5.2 -- STATE AND LOCAL GOVERNMENT RECEIPTS AND EXPENDITURES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
STATE AND LOCAL GOVT RECEIPTS	207.7	229.3	258.7	290.3	318.5	348.8	388.2	432.5	478.2	527.3	576.7	11.10 10.40 10.78
PERSONAL INCOME TAXES	39.5	43.8	52.4	63.0	73.4	83.3	93.4	105.1	117.0	130.0	145.3	16.33 11.69 14.23
CORPORATE PROFITS TAXES	6.7	5.4	6.7	7.9	7.6	8.1	10.0	11.7	13.0	14.6	16.5	13.31 13.30 13.89
INDIRECT BUSINESS TAXES	104.9	113.9	127.6	142.1	154.3	166.7	182.5	200.3	219.3	239.9	260.8	9.89 9.33 9.63
CONTRIBUTIONS FOR SOCIAL INSUR	12.8	14.2	15.6	17.1	18.9	21.1	23.5	26.3	29.3	32.8	35.8	10.62 11.07 10.81
FEDERAL GRANTS-IN-AID	43.8	52.0	56.3	60.3	64.3	69.7	78.7	89.1	99.6	110.0	118.2	8.65 10.70 9.55
STATE AND LOCAL EXPENDITURES	205.9	230.3	254.9	281.2	312.4	345.1	381.5	422.2	467.5	519.6	572.1	10.61 10.66 10.62
PURCHASES OF GOODS AND SERVICE	192.3	213.3	236.0	260.5	288.5	318.6	352.0	389.5	431.2	479.3	527.4	10.54 10.63 10.57
TRANSFER PAYMENTS	20.2	23.6	25.5	27.7	30.7	33.5	36.7	40.4	44.5	49.1	53.9	9.28 10.04 9.61
NET INTEREST PAID	-1.6	-1.2	-1.0	-0.9	-0.9	-0.9	-0.1	-0.1	-0.1	-0.1	-0.1	.00* .96 .00*
CURRENT SURPLUS OF GOVT ENTERP	5.0	5.2	5.6	6.1	6.5	7.0	7.4	7.9	8.4	8.8	9.3	7.13 5.85 6.55
SURPLUS OR DEFICIT (-)	1.8	-1.0	3.8	9.1	6.1	3.7	6.7	10.4	10.7	7.7	4.7	.00* -8.79 .00*

TABLE 5.3 -- OTHER FISCAL POLICY VARIABLES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
BASE PERSONAL INCOME TAX RATE	.204	.204	.204	.204	.204	.192	.180	.180	.180	.180	.180	-2.47 .00 -1.38
BASE CORPORATE INCOME TAX RATE	.480	.480	.480	.480	.480	.480	.480	.480	.480	.480	.480	.00 .00 .00
CHANGE IN SOCIAL SEC TAX RATE	.000	.000	.000	.281	.125	.125	.125	.125	.125	.125	.125	.00 .00* .00*
CHANGE IN SOC SEC INCOME BASE	600.0	225.0	275.0	887.5	250.0	250.0	250.0	250.0	250.0	250.0	250.0	2.13 .00 1.18
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.8	78.9	87.6	98.6	110.7	123.2	136.4	150.7	14.42 11.18 12.95
EMPLOYER SOCIAL INSURANCE TAX	53.6	56.6	64.0	81.6	91.1	101.2	114.8	129.6	148.8	160.7	178.0	15.17 11.60 13.56
CIVILIAN GOVERNMENT EMPLOYMENT	14.28	14.92	15.33	15.73	16.09	16.53	17.05	17.60	18.13	18.71	19.09	2.71 2.87 2.78
NUMBER OF MEN IN ARMED FORCES	2.23	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	.01 .00 .01
PROGRESS PAYMENTS, DDD	8.4	8.4	8.1	8.0	7.7	7.7	7.7	7.7	7.7	7.7	7.7	-1.73 .00 -0.96
INVESTMENT IN GOVT STRUCTURES	38.0	41.7	44.1	47.0	53.3	59.0	65.1	72.2	79.9	87.6	94.6	9.35 9.78 9.53

* GROWTH RATE NOT CALCULATED

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .5BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 ANNUALIZED COMPOUND
 GROWTH RATES, YEARS
 75-80 80-84 75-84

VARIABLE NAME

1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

MONETARY VARIABLES

TABLE 6.1 -- COMPONENTS OF THE MONEY SUPPLY

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
CURRENCY	64.9	71.0	78.3	86.7	94.6	102.3	111.3	121.2	131.3	142.0	153.3
DEMAND DEPOSITS	214.0	223.4	242.0	251.4	254.5	263.4	278.5	296.1	312.1	326.5	338.8
GOVT DEMAND DEPOSITS	5.6	4.9	6.0	6.2	7.4	8.1	8.8	9.4	10.0	10.7	11.3
CONSUMER TIME DEPOSITS	317.9	351.8	387.5	416.9	445.4	487.4	539.7	594.9	646.7	696.5	744.9
CERTIFICATES OF DEPOSITS	80.4	89.8	96.3	105.1	113.9	122.7	131.5	140.3	149.1	157.9	166.7
MONEY SUPPLY (EXCL. TD)	278.9	294.4	320.2	338.0	349.0	365.8	389.6	417.3	443.4	468.5	492.1
MONEY SUPPLY (INC. CONS. TD)	596.8	646.2	707.7	755.0	794.5	853.2	929.5	1012.2	1090.1	1165.0	1237.1
MONEY SUPPLY (INCL. ALL TD)	677.2	736.0	804.1	860.1	908.4	976.0	1061.0	1152.5	1239.3	1328.9	1403.8
THRIFT DEPOSITS	359.0	195.5	449.5	491.5	531.2	587.3	662.7	738.3	804.9	863.2	914.8

TABLE 6.2 -- INTEREST RATES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
DISCOUNT RATE (NY FED RES)	7.82	6.20	6.98	7.98	8.59	8.28	6.86	5.57	5.10	5.19	5.53
FEDERAL FUND RATE	10.50	6.09	7.92	10.34	12.04	10.31	6.87	4.49	4.16	4.41	5.63
TREASURY BILL RATE, 91 DAY	7.87	6.16	7.82	9.33	9.64	8.05	6.46	5.83	6.12	6.49	7.40
COMMERCIAL PAPER RATE, 4-6 MO	9.83	6.79	8.87	10.84	11.07	9.33	7.48	6.74	7.04	7.44	8.45
PRIMARY 89 DAY CD RATE, NYC BANK	10.18	6.82	9.12	11.30	11.55	9.62	7.58	6.76	7.09	7.53	8.65
PRIME COMMERCIAL BANK RATE	10.80	8.22	9.77	11.76	12.38	10.98	8.99	8.10	8.25	8.52	9.14
AAA CORPORATE RATE, NEW ISSUES	8.99	9.40	10.43	11.02	10.58	9.08	7.93	7.29	7.11	7.14	7.44
AA UTILITY BOND RATE	9.34	9.76	10.81	11.41	10.87	9.30	8.08	7.22	7.23	7.26	7.57
AA CORPORATE RATE, NEW ISSUES	9.41	9.96	11.08	11.73	11.22	9.58	8.31	7.62	7.45	7.45	7.77
AA INDUSTRIAL BOND RATE	8.83	9.45	10.49	11.07	10.55	9.02	7.84	7.19	7.01	7.04	7.34
MORTGAGE RATE	8.92	9.20	9.86	10.40	10.21	9.17	8.23	7.73	7.61	7.64	7.85

TABLE 6.3 -- OTHER MONETARY INDICATORS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
NON-BORROWED MONETARY BASE	106.6	116.2	123.1	128.2	131.4	136.6	144.0	152.4	160.2	167.8	174.7
MONETARY BASE	108.8	116.5	124.1	129.2	132.4	137.6	145.0	153.4	161.2	168.8	175.7
BORROWED RESERVES	2.05	.33	.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EXCESS RESERVES OF FED RESERVE	.19	.33	.30	.30	.30	.30	.30	.30	.30	.30	.30
FREE RESERVES	-1.86	-0.00	-0.63	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70
INDEX OF CREDIT RATIONING	1.35	.76	.91	1.03	1.31	-0.06	-0.40	-0.31	-0.29	-0.29	-0.07
BUS. LOANS AT LARGE COMM BANKS	123.8	127.6	140.7	157.3	166.7	169.9	185.5	205.2	219.4	233.7	252.6
ALL NON-BUS. LOANS, ADJUSTED	312.5	323.1	354.0	394.1	439.5	481.1	525.0	572.3	620.4	658.9	676.0
INV IN MUN + OTHER SECURITIES	135.5	145.5	164.7	179.3	183.9	192.2	201.3	212.6	225.2	231.6	236.3
TOTAL INV OF COMMERCIAL BANKS	189.4	211.1	235.5	252.4	289.3	317.1	344.2	372.9	400.9	419.4	417.1
TREAS DEP AT FED RES BANKS	2.16	1.49	1.40	1.42	1.53	1.53	1.53	1.53	1.53	1.53	1.53
TREAS. SEC. AT FOREIGN BANKS	54.12	66.25	82.00	95.28	101.01	106.10	111.20	116.28	121.22	125.70	125.70
TREAS BILLS OUTSTANDING	109.9	135.1	167.3	188.1	191.0	197.0	202.6	207.6	212.3	217.3	221.8
TREAS BONDS + NOTES OUTSTANDING	162.0	181.4	212.3	232.0	230.9	235.3	240.1	245.6	250.8	255.6	259.5
VOLUME OF CORPORATE ISSUES	2.10	3.25	3.00	3.01	3.10	3.21	3.41	3.70	4.00	4.30	4.56
TOTAL CORP BONDS OUTSTANDING	217.3	244.9	275.1	301.8	313.2	328.2	345.0	362.4	379.7	396.9	411.9
NON-BANK COMMERCIAL PAPER	40.35	44.46	51.85	61.20	66.96	72.59	78.12	83.79	89.39	94.91	100.50
BANK RELATED COMMERCIAL PAPER	7.19	7.90	7.80	9.01	8.09	8.04	8.18	8.32	8.47	8.64	8.87
FEDERAL FUNDS VOLUME, 46 BANKS	20.2	21.4	23.9	26.2	27.9	30.1	32.6	34.1	36.0	38.2	40.6
FEDERAL AGENCY DEBT	77.95	85.93	87.20	90.87	102.92	109.77	116.20	122.60	128.97	135.14	140.90

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 7.1 -- PERSONAL CONSUMPTION EXPENDITURES IN CURRENT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS=
NET PURCHASES OF NEW CARS	34.6	32.1	42.2	49.8	46.5	48.0	57.2	63.6	67.4	70.9	73.9	12.23
NET PURCHASES OF USED CARS	2.8	3.0	3.6	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.5	8.36
MOBILE HOMES	4.9	4.4	6.4	7.1	7.0	7.7	9.2	9.7	10.4	11.3	12.2	15.78
TIRES AND AUTO PARTS	7.4	8.7	10.6	11.7	12.3	13.0	13.8	14.9	16.0	17.2	18.4	9.57
AUTOMOBILES AND PARTS	49.7	48.3	62.7	72.3	69.7	73.0	84.7	93.0	98.8	104.8	110.1	11.89
MAJOR HOUSEHOLD APPLIANCES	27.7	27.1	28.8	31.6	32.2	32.9	36.1	39.5	42.0	45.0	48.2	5.95
FURNITURE AND FURNISHINGS	31.2	31.4	34.7	38.9	40.6	42.7	48.3	55.2	61.1	67.1	73.3	9.01
OTHER CONSUMER DURABLES	19.1	21.2	23.4	26.1	28.2	30.2	33.3	36.9	40.5	44.2	47.9	9.48
TOTAL DURABLE GOODS	127.5	128.0	149.7	168.9	170.7	178.8	202.5	224.6	242.4	261.0	279.4	9.61
FOOD AND BEVERAGES	187.7	207.0	229.7	259.5	285.3	308.0	334.0	363.9	395.7	430.2	467.4	10.05
CLOTHING AND SHOES	74.1	78.1	84.8	93.3	98.2	103.5	112.7	122.8	133.1	143.6	153.9	7.61
GAS AND OIL	35.9	38.8	42.4	45.9	48.9	51.1	53.8	57.5	61.7	66.2	70.7	6.72
OTHER CONSUMER NONDURABLES	82.4	86.5	96.2	107.1	117.3	127.6	140.5	155.5	171.1	187.2	202.7	10.19
TOTAL NONDURABLE GOODS	380.2	410.4	453.1	505.8	549.8	590.1	641.0	699.7	761.6	827.1	894.8	9.33
HOUSING SERVICES	126.4	138.6	151.6	167.4	180.9	192.4	206.8	224.4	243.4	263.2	283.8	8.34
HOUSEHOLD OPERATION	52.9	59.3	64.6	71.1	78.3	85.0	91.5	98.9	107.2	116.4	126.2	9.07
TRANSPORTATION SERVICES	26.1	28.9	30.5	33.6	37.2	40.0	42.5	45.6	49.5	54.0	58.9	8.04
OTHER CONSUMER SERVICES	163.6	175.9	197.1	225.2	250.7	275.7	308.3	350.4	396.4	445.8	498.8	11.87
TOTAL SERVICES	369.0	402.6	443.8	497.3	547.2	593.1	649.0	719.2	796.5	879.3	967.7	10.02

TABLE 7.2 -- PERSONAL CONSUMPTION EXPENDITURES DEFLATED BY COMPONENTS OF THE CPI WHERE THEY APPLY INSTEAD OF BY CONSUMPTION DEFLATORS. FOR THIS REASON THEY DO NOT ADD TO CONSUMPTION IN 1958\$ AS GIVEN IN TABLE 2.1. PAGE 4

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS=
NET PURCHASES OF NEW CARS	29.5	24.8	29.7	33.1	29.2	28.8	33.0	35.6	36.9	38.0	38.8	5.87
NET PURCHASES OF USED CARS	2.3	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.83
MOBILE HOMES	3.9	3.2	4.3	4.7	4.5	4.8	5.5	5.6	5.7	6.0	6.2	11.46
TIRES AND AUTO PARTS	6.1	6.4	7.4	7.8	8.0	8.2	8.6	8.9	9.3	9.6	10.0	5.84
AUTOMOBILES AND PARTS	41.8	36.6	43.8	47.8	44.1	44.2	49.5	52.6	54.4	56.2	57.7	6.23
MAJOR HOUSEHOLD APPLIANCES	25.2	22.8	22.8	23.6	22.9	22.5	24.0	25.8	27.1	28.8	30.7	1.05
FURNITURE AND FURNISHINGS	22.9	21.5	22.3	23.6	23.3	23.6	25.9	28.8	31.0	33.1	35.3	3.85
OTHER CONSUMER DURABLES	13.8	13.7	14.0	14.4	14.4	14.4	15.1	16.1	17.0	17.9	18.6	2.03
TOTAL DURABLE GOODS	103.8	94.6	102.9	109.4	104.8	104.7	114.6	123.3	129.6	136.1	142.2	3.92
FOOD AND BEVERAGES	116.0	117.7	119.6	124.7	124.9	123.9	125.2	129.1	133.7	137.9	142.3	1.25
CLOTHING AND SHOES	54.5	54.9	56.4	58.4	58.0	58.3	61.1	64.2	67.1	69.9	72.5	2.17
GAS AND OIL	22.6	24.1	25.4	26.5	27.0	27.4	28.1	29.1	30.2	31.2	32.2	3.07
OTHER CONSUMER NONDURABLES	58.6	54.8	56.4	58.7	59.7	60.5	62.8	66.0	69.1	72.1	74.5	2.78
TOTAL NONDURABLE GOODS	251.8	251.5	257.8	268.3	269.6	270.1	277.2	288.4	300.0	311.1	321.5	1.97
HOUSING SERVICES	97.1	100.7	104.6	109.1	111.8	113.4	116.6	121.6	127.1	132.4	137.2	2.99
HOUSEHOLD OPERATION	38.9	39.1	39.6	40.3	40.9	41.2	41.6	42.5	44.1	46.0	47.7	1.24
TRANSPORTATION SERVICES	18.4	19.1	19.1	20.0	20.9	21.4	21.7	22.2	22.9	23.5	24.1	2.54
OTHER CONSUMER SERVICES	88.4	82.6	82.6	81.8	81.0	81.7	86.2	92.5	97.3	100.5	102.4	0.85
TOTAL SERVICES	242.7	241.5	245.9	251.2	254.7	257.6	266.1	278.8	291.3	302.4	311.5	1.96
NEW PASSEN CAR SALES, TOTAL	9.00	7.94	9.69	10.75	9.71	9.75	11.30	12.22	12.58	12.89	13.13	7.31
NEW PASSEN CAR SALES, DOMESTIC	7.57	6.26	7.83	8.79	7.71	7.70	9.18	10.01	10.26	10.47	10.60	7.96
NEW PASSEN CAR SALES, FOREIGN	1.43	1.68	1.85	1.96	2.00	2.05	2.12	2.21	2.32	2.42	2.53	4.72
UNIT VALUE, NEW CARS, \$000	3.85	4.05	4.35	4.63	4.79	4.92	5.06	5.21	5.36	5.50	5.63	4.58

PLEASE NOTE THAT THE COMPONENTS OF THE CPI CORRESPONDING TO THIS TABLE ARE GIVEN IN TABLE 11.1

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .5BILLION - BASED ON MAY - C56 LAGGED 2 YRS

1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

TABLE 8.1 -- INVESTMENT EXPENDITURES IN CURRENT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEAR*	75-80	80-84	75-84
FIXED NONRESIDENTIAL INVESTMENT	149.2	149.7	173.5	203.0	214.0	219.9	252.2	293.3	332.7	375.5	423.4	10.99	13.84	12.23	
TOTAL NONRES STRUCTURES	52.0	54.3	60.8	70.2	77.0	81.4	90.5	101.5	116.1	134.1	153.3	10.73	14.09	12.20	
COMMERCIAL STRUCTURES	16.0	15.2	18.0	20.7	24.4	28.5	33.6	37.4	41.8	48.7	57.0	17.16	14.09	15.77	
INDUSTRIAL STRUCTURES	7.8	8.6	10.0	13.3	13.5	12.0	13.2	14.6	17.1	20.1	23.0	8.91	14.80	11.48	
OTHER NONRES STRUCTURES	28.3	30.5	32.8	36.2	39.2	40.9	43.6	49.3	57.2	65.4	73.3	7.42	13.88	10.23	
PRODUCERS DURABLE EQUIPMENT	97.1	95.4	112.7	132.9	136.9	138.6	161.7	191.8	216.7	241.4	270.2	11.13	13.89	12.25	
MANUFACTURING SECTOR	45.8	45.3	49.8	61.4	64.8	62.3	70.7	86.7	102.0	117.0	133.5	9.32	17.25	12.76	
OTHER FIXED BUS INV, OBE-SEC	66.4	67.8	78.2	89.9	95.2	99.3	112.3	128.0	143.3	160.4	179.8	10.61	12.48	11.43	
RESIDENTIAL STRUCTURES	46.0	42.2	58.1	57.5	50.3	70.4	97.0	105.4	106.9	110.3	113.4	18.11	3.98	11.59	
TOTAL NONFARM PRIVATE	45.2	41.5	57.2	56.6	49.4	69.5	96.0	104.3	105.8	109.1	112.1	18.24	3.96	11.65	
NEW FAMILY DWELLING UNITS	36.9	33.3	48.7	47.4	40.1	58.4	82.4	88.8	88.8	90.8	92.6	19.83	2.95	12.00	
SINGLE-FAMILY DWELLINGS	25.7	26.0	35.7	33.8	31.3	43.6	58.9	60.8	55.9	52.0	50.0	17.73	-3.98	7.52	
MULTI-FAMILY DWELLINGS	11.3	7.3	13.0	13.6	8.8	14.8	23.5	28.1	32.9	38.8	42.5	26.31	15.95	21.57	
ADDITIONS AND ALTERATIONS	8.3	8.2	8.6	9.3	9.3	11.1	13.5	15.5	17.0	18.2	19.5	10.66	9.51	10.14	
CHANGE IN INVENTORIES	14.2	-12.3	8.1	13.6	-5	-11.3	6.8	25.2	29.7	29.1	28.9	.00*	43.70	.00*	

TABLE 8.2 -- INVESTMENT EXPENDITURES IN 1958 DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEAR*	75-80	80-84	75-84
FIXED NONRESIDENTIAL INVESTMENT	94.0	82.9	89.9	98.7	96.3	93.9	103.4	115.4	124.6	132.8	139.4	4.52	7.75	5.94	
TOTAL NONRES STRUCTURES	26.2	25.1	25.6	27.2	28.0	28.3	29.9	31.7	33.9	36.3	38.2	3.60	6.30	4.78	
COMMERCIAL STRUCTURES	8.1	7.0	7.6	8.0	8.8	9.9	11.1	11.7	12.2	13.2	14.2	9.62	6.29	8.12	
INDUSTRIAL STRUCTURES	3.9	4.0	4.2	5.1	4.9	4.2	4.4	4.6	5.0	5.4	5.7	1.89	6.96	4.11	
OTHER NONRES STRUCTURES	14.2	14.1	13.8	14.0	14.2	14.2	14.4	15.4	16.7	17.7	18.3	.50	6.10	2.95	
PRODUCERS DURABLE EQUIPMENT	67.8	57.8	64.3	71.5	68.3	65.6	73.5	83.7	90.7	96.4	101.2	4.91	8.32	6.41	
MANUFACTURING SECTOR	28.9	25.1	25.8	29.8	29.2	26.6	29.0	34.1	38.2	41.4	44.0	2.93	10.98	6.43	
OTHER FIXED BUS INV, OBE-SEC	41.8	37.6	40.5	43.7	42.9	42.4	46.1	50.4	53.7	56.7	59.2	4.18	6.47	5.18	
RESIDENTIAL STRUCTURES	24.0	19.8	25.1	23.0	19.7	26.9	34.9	35.3	33.2	31.9	30.7	12.02	-3.18	4.98	
TOTAL NONFARM PRIVATE	23.6	19.4	24.7	22.6	19.3	26.5	34.5	34.9	32.8	31.5	30.3	12.16	-3.22	5.04	
NEW FAMILY DWELLINGS	19.3	15.6	21.0	18.9	15.7	22.3	29.6	29.7	27.6	26.2	25.0	13.68	-4.15	5.37	
SINGLE-FAMILY DWELLINGS	13.4	12.2	15.4	13.5	12.2	16.6	21.2	20.3	17.4	15.0	13.5	11.68	-10.61	1.16	
MULTI-FAMILY DWELLINGS	5.9	3.4	5.6	5.4	3.4	5.6	8.5	9.4	10.2	11.2	11.5	19.65	7.96	14.40	
ADDITIONS AND ALTERATIONS	4.3	3.8	3.7	3.7	3.6	4.2	4.9	5.2	5.3	5.3	5.3	4.93	1.94	3.59	
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	2.71	.00	1.49	
CHANGE IN INVENTORIES	8.7	-7.4	4.5	7.0	-2	-5.1	2.8	10.2	11.5	10.7	9.9	.00*	37.02	.00*	

TABLE 8.3 -- OTHER VARIABLES IN INVESTMENT SECTOR

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEAR*	75-80	80-84	75-84
SINGLE-FAMILY HOUSING STARTS	.88	.88	1.05	.87	.84	1.20	1.44	1.31	1.12	.96	.87	10.32	-11.86	-1.15	
MULTI-FAMILY HOUSING STARTS	.45	.35	.54	.48	.29	.54	.76	.84	.93	1.03	1.06	16.59	8.61	12.86	
TOTAL PRIVATE STARTS	1.34	1.24	1.59	1.35	1.13	1.73	2.20	2.15	2.05	2.00	1.93	12.26	-3.25	5.98	
NUMBER OF MOBILE HOMES, SAAR	.33	.30	.43	.49	.50	.53	.61	.62	.65	.68	.72	15.73	3.95	10.33	
TOTAL STARTS INCL MOBILE HOMES	1.67	1.53	2.02	1.84	1.62	2.26	2.82	2.77	2.69	2.68	2.65	12.97	-1.54	6.26	
AVG. PRICE S-F HOUS START, \$000	28.20	30.85	34.11	37.40	38.17	38.64	41.45	45.14	48.82	52.73	56.55	6.09	8.07	6.86	
AVG. PRICE M-F HOUS START, \$000	20.67	22.75	24.85	26.85	28.84	30.49	32.06	34.00	36.00	38.00	39.75	7.10	5.52	6.59	
DUMMY VBL. FOR INV. TAX CREDIT	.035	.056	.077	.055	.070	.085	.100	.100	.100	.100	.100	8.70	4.15	6.65	
VACANCY RATE, RESIDENCES	6.2	6.0	5.9	5.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	-3.66	.00	-2.05	

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 VARIABLE NAME
 TABLE 8.3 CONTINUED

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
RENTAL COST, EQUIPMENT	.270	.270	.266	.282	.280	.255	.230	.213	.211	.210	.212	-3.12
RENTAL COST, STRUCTURES	.303	.286	.297	.301	.287	.259	.238	.230	.228	.231	.237	-3.55
DEPRECIATION FACTOR, EQUIPMENT	.771	.776	.776	.776	.776	.776	.776	.776	.776	.776	.776	.00
DEPRECIATION FACTOR, STRUCTURES	.520	.520	.520	.520	.520	.520	.520	.520	.520	.520	.520	.00
NEW ORDERS, DEFLATED	54.4	44.7	50.8	56.2	55.7	54.0	57.7	63.6	68.5	72.1	75.2	5.21
INDEX OF IND. PROD., MFG	124.0	109.6	120.8	130.1	125.8	122.9	133.5	146.7	156.4	164.3	171.3	4.03
FULL CP INDEX OF INDUS PROD	144.0	142.0	150.4	159.7	162.0	162.0	170.0	181.4	191.8	201.6	210.6	3.66
INDEX OF CAPACITY UTILIZATION	86.14	77.13	80.28	81.47	77.63	75.86	78.49	80.90	81.50	81.50	81.34	.35

IMPORTS, EXPORTS, AND THEIR PRICE DEFLATORS
 TABLE 9.1 -- EXPORTS AND IMPORTS IN CURRENT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
EXPORTS OF AGRICULTURAL GOODS	22.2	23.8	25.2	26.2	27.9	29.6	31.4	33.3	35.3	37.5	39.6	5.72
EXPORTS OF PETROLEUM PRODUCTS	.8	.9	.9	.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	11.04
EXPORTS OF NEW CARS	4.7	5.1	5.9	6.6	6.9	7.1	7.3	7.5	7.9	8.1	8.3	7.23
EXPORTS OF SERVICES	40.8	37.3	40.2	43.2	45.3	49.0	53.2	57.4	61.4	66.1	71.0	7.37
EXPORTS OF OTHER GOODS	71.8	80.6	95.8	109.6	124.6	137.3	151.5	168.0	183.0	197.4	215.8	13.45
IMPORTS OF AGRICULTURAL GOODS	10.5	9.9	9.3	10.0	10.5	11.1	11.7	12.4	13.2	14.0	14.8	5.69
IMPORTS OF PETROLEUM PRODUCTS	24.3	29.2	33.5	34.7	35.0	35.0	35.0	35.0	35.0	35.0	35.0	3.67
IMPORTS OF NEW CARS	6.9	7.4	9.2	10.5	11.6	12.8	14.3	16.1	18.2	20.6	23.2	14.05
IMPORTS OF SERVICES	36.4	36.8	40.0	43.2	47.4	51.8	56.0	60.6	65.7	71.6	75.8	8.76
IMPORTS OF OTHER GOODS	60.1	62.1	80.0	91.2	101.5	111.0	126.9	144.4	156.1	169.9	187.6	15.35

EXPORTS AND IMPORTS IN 1958 DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
EXPORTS OF AGRICULTURAL GOODS	11.9	13.3	13.1	12.6	12.6	12.5	12.6	13.0	13.5	13.8	14.1	-1.13
EXPORTS OF PETROLEUM PRODUCTS	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	3.93
EXPORTS OF NEW CARS	3.9	4.0	4.3	4.5	4.4	4.3	4.2	4.2	4.1	4.0	3.9	1.18
EXPORTS OF SERVICES	21.0	16.9	16.9	17.0	16.7	17.2	17.7	18.3	18.7	19.1	19.4	.90
EXPORTS OF OTHER GOODS	34.9	32.7	36.3	38.8	41.8	44.3	46.8	49.5	51.5	52.8	54.5	7.44
IMPORTS OF AGRICULTURAL GOODS	5.1	4.7	4.9	5.1	5.2	5.4	5.5	5.7	5.9	6.1	6.2	3.38
IMPORTS OF PETROLEUM PRODUCTS	5.8	6.6	6.9	6.8	6.4	6.0	5.7	5.3	5.0	4.7	4.5	-2.94
IMPORTS OF NEW CARS	5.8	5.5	6.4	6.9	7.1	7.5	8.0	8.6	9.3	10.0	10.9	7.71
IMPORTS OF SERVICES	16.6	14.5	14.0	13.9	14.4	15.0	15.3	15.6	16.0	16.4	16.5	1.03
IMPORTS OF OTHER GOODS	29.5	25.7	28.1	28.1	29.5	30.2	32.1	33.9	33.9	34.0	35.1	4.57

UNIT VALUE INDICES AND PRICE INDICES OF WORLD TRADE

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
IMPLICIT DEFLATOR, TOTAL EXP	195.0	220.0	237.2	254.4	271.7	285.5	300.1	314.5	329.0	345.6	365.1	5.02
IMPLICIT DEFLATOR, NON AG EXP	198.2	234.9	251.9	269.3	285.5	298.0	312.5	328.5	345.1	363.9	385.8	5.88
IMPLICIT DEFLATOR, OTHER EXP	205.9	246.4	264.1	282.5	297.8	309.5	323.5	339.0	355.4	374.1	396.1	5.41
IMPLICIT DEFLATOR, TOTAL IMP	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1	7.64
IMPLICIT DEFLATOR, NON AG IMP	189.3	227.8	248.0	265.0	274.0	285.2	300.0	315.1	331.1	348.0	365.0	5.66
IMPLICIT DEFLATOR, OTHER IMP	202.8	241.6	284.5	324.3	344.9	367.4	394.5	425.5	461.1	499.2	538.0	10.31
IMPLICIT DEFL, EXPORTS NEW CARS	120.3	125.7	137.5	146.5	156.0	164.0	172.1	181.1	190.9	200.9	211.0	5.98
IMPLICIT DEFL, IMPORTS NEW CAR	119.3	134.1	144.2	153.1	162.5	170.1	178.9	187.1	196.0	204.9	213.0	5.92
PRICE INDEX, PETROLEUM IMPORTS	416.6	445.1	487.5	509.0	544.7	583.5	619.4	656.6	696.1	737.4	779.0	6.83
INTL TRADE PRICE, MFG, GOODS	196.0	210.5	222.5	233.1	240.6	250.1	260.1	270.8	281.1	292.0	303.0	4.32
INDEX OF WORLD TRADE VOLUME	325.0	331.5	348.0	372.9	401.2	428.7	455.1	482.2	511.1	541.3	574.0	6.54

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .5BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985
 LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT, HOURS AND WAGES, AND LABOR COSTS AND PRODUCTIVITY

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
POPULATION, 16 AND OVER	148.59	151.16	153.75	156.40	159.77	161.01	163.25	165.20	167.06	168.70	170.10	171.50	1.55
CIVILIAN LABOR FORCE	91.07	92.71	95.15	97.57	99.28	100.46	101.91	103.47	104.99	106.41	107.75	109.10	1.91
EMPLOYMENT, ARMED FORCES	2.23	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	.01
EMPLOYMENT, CIVILIAN GOVERNMENT	14.28	14.92	15.33	15.73	16.09	16.53	17.05	17.60	18.13	18.71	19.09	19.50	2.71
SELF EMPLOYED, INCL FARM	7.64	7.47	7.50	7.49	7.40	7.30	7.20	7.10	7.00	6.90	6.80	6.70	-0.74
EMPLOYMENT, MANUFACTURING	20.01	18.07	19.38	20.53	19.66	18.63	19.42	20.57	21.14	21.36	21.35	21.35	1.46
EMPLOYMENT, CONSTRUCTION	3.99	3.49	3.62	3.83	3.86	4.01	4.40	4.63	4.76	4.92	5.04	5.15	4.69
EMPLOYMENT OTHER PRIVATE	40.05	40.46	41.63	42.80	43.78	44.10	44.53	45.49	46.67	47.80	49.20	50.70	1.93
NUMBER OF EMPLOYEES	78.33	76.95	79.96	82.89	83.39	83.27	85.40	88.29	90.69	92.79	94.69	96.50	2.11
NUMBER OF UNEMPLOYED	5.10	8.28	7.69	7.19	8.49	9.90	9.32	8.09	7.30	6.72	6.26	5.80	2.38
UNEMPLOYMENT RATE	5.60	8.93	8.08	7.37	8.55	9.85	9.14	7.82	6.96	6.32	5.81	5.35	.46
UNEMPLOYMENT RATE, MARRIED MEN	2.69	5.27	4.45	3.79	4.83	5.94	5.27	4.09	3.34	2.79	2.36	2.00	.03

TABLE 10.2 -- HOURS AND WAGES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
HOURS WORKED PER WEEK, MFG.	40.0	39.0	39.5	39.6	38.9	38.7	39.0	39.3	39.4	39.3	39.2	39.2	.01
HOURS WORKED PER WEEK, CONSTR.	36.8	37.0	37.4	36.8	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	-.29
HOURS WORKED PER WEEK, OTHER	34.3	34.1	33.9	33.6	33.4	33.3	33.3	33.2	33.1	33.0	32.8	32.8	-.45
HOURS WORKED PER WEEK, TOTAL	36.6	36.1	36.2	36.1	35.7	35.6	35.7	35.7	35.7	35.6	35.5	35.5	-.25
HOURLY WAGE RATE, MFG.	4.40	4.81	5.27	5.77	6.26	6.77	7.34	7.92	8.48	9.07	9.72	10.30	8.62
HOURLY WAGE RATE, CONSTRUCTION	6.75	7.25	7.78	8.34	8.95	9.55	10.13	10.81	11.61	12.51	13.54	14.60	6.91
HOURLY WAGE RATE, OTHER	3.83	4.13	4.57	5.06	5.49	5.93	6.40	6.85	7.32	7.83	8.39	8.93	9.15
HOURLY WAGE RATE, TOTAL PRIVATE	4.18	4.49	4.94	5.45	5.89	6.36	6.89	7.40	7.92	8.47	9.08	9.70	8.93
WAGE RATE, GOVT CIVILIAN	4.61	4.87	5.18	5.51	5.94	6.42	6.93	7.49	8.09	8.74	9.34	9.90	7.34
WAGE RATE, MILITARY	4.57	4.89	5.18	5.56	5.93	6.34	6.79	7.26	7.77	8.32	8.83	9.30	6.81

TABLE 10.3 -- LABOR COSTS AND PRODUCTIVITY

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
UNIT LABOR COSTS, MFG.	.873	.970	1.043	1.127	1.221	1.305	1.374	1.438	1.502	1.567	1.629	1.689	7.21
UNIT LABOR COSTS, CONSTR.	.853	.917	.953	1.062	1.146	1.135	1.157	1.231	1.312	1.401	1.507	1.629	4.77
UNIT LABOR COSTS, OTHER PRIVATE	.878	.951	1.048	1.162	1.306	1.416	1.481	1.554	1.649	1.758	1.892	2.040	9.26
UNIT LABOR COSTS, ALL PRIVATE	.928	1.019	1.102	1.206	1.336	1.436	1.499	1.566	1.648	1.740	1.845	1.950	8.02
UNIT LABOR COSTS, BLS 1967=100.	1.06.6	1.61.3	1.74.3	1.90.5	210.6	226.0	235.8	246.3	259.1	273.4	289.7	306.0	7.89
LABOR PRODUCTIVITY, MFG.	6.120	6.141	6.226	6.324	6.496	6.742	6.955	7.165	7.426	7.726	8.091	8.500	2.52
LABOR PRODUCTIVITY, CONSTR.	8.631	9.048	9.393	9.111	9.123	9.846	10.214	10.250	10.364	10.478	10.594	10.700	2.45
LABOR PRODUCTIVITY, OTHER PRIV.	4.888	4.872	4.905	4.911	4.761	4.777	4.961	5.098	5.169	5.221	5.215	5.215	.36
LABOR PROD., TOTAL PRIVATE	5.502	5.457	5.536	5.564	5.491	5.597	5.833	6.007	6.137	6.261	6.346	6.410	1.34
LABOR PROD., BLS 1967 = 100.	110.6	110.3	112.2	113.4	112.6	115.4	120.5	124.5	127.7	130.9	133.3	135.0	1.79

TABLE 10.4 -- OUTPUT ORIGINATING BY SECTOR

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
MANUFACTURING SECTOR	254.9	225.1	208.2	207.4	258.5	252.6	274.3	301.6	321.3	337.6	351.9	366.0	4.03
CONSTRUCTION SECTOR	67.5	60.9	66.1	66.8	66.8	75.0	85.2	90.0	93.6	97.8	100.9	103.0	6.96
NON MANUFACTURING SECTOR	407.2	410.1	424.7	437.2	433.2	438.2	459.5	482.4	501.7	519.1	533.6	548.0	2.30
FARM SECTOR	27.5	27.3	29.3	30.7	32.0	32.7	33.2	33.6	34.1	34.5	35.0	35.0	3.94
GOVERNMENT SECTOR	64.1	65.9	67.4	68.7	70.0	71.6	73.4	75.3	77.2	79.2	80.6	81.0	2.19

ANNUALIZED COMPOUND GROWTH RATES, YEARS-

75-80 80-84 75-84

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 ANNUALIZED COMPOUND GROWTH RATES - YEARS - 75-80 80-84 75-84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	75-80	80-84	75-84
TABLE 11.1 -- COMPONENTS OF THE CONSUMER PRICE INDEX														
NEW CARS	117.5	129.6	141.7	150.5	159.1	166.9	173.4	178.7	182.9	186.8	190.5	5.99	2.38	4.37
USED CARS	122.6	139.6	155.0	159.4	166.2	175.1	181.8	188.0	194.5	199.9	205.0	5.42	3.04	4.35
MORTGAGE HOMES	128.5	140.9	149.0	155.5	157.9	164.1	170.8	177.1	184.0	191.1	199.0	3.93	3.89	3.91
TIRES AND PARTS	123.9	137.1	145.0	152.4	155.9	160.0	163.2	169.9	175.6	181.8	187.8	3.54	3.57	3.55
AUTOMOBILES AND PARTS	119.2	131.9	143.1	151.1	158.1	165.1	171.1	176.8	181.6	186.2	190.8	5.33	2.77	4.18
APPLIANCES	109.7	118.7	126.6	133.8	140.5	146.2	150.3	153.0	154.7	156.0	157.1	4.83	1.11	3.16
FURNITURE AND BEDDING	136.0	146.4	155.4	165.0	174.1	181.0	186.4	191.8	197.1	202.4	207.8	4.96	2.75	3.97
OTHER DURABLE COMMODITIES	138.0	154.5	167.5	181.0	195.8	209.2	219.6	228.9	237.8	247.2	257.2	7.29	4.02	5.82
HOUSEHOLD DURABLES	128.9	140.6	150.3	160.3	170.2	178.5	185.6	191.8	197.4	203.1	209.3	5.70	3.05	4.51
CONSUMER DURABLES	133.9	149.1	161.4	172.6	184.9	196.4	205.8	214.1	222.1	230.3	238.9	6.65	3.80	5.37
IMPLICIT DEFL. FOR DURABLES	123.1	135.3	145.4	154.3	163.0	171.6	176.6	182.1	187.0	191.8	196.4	5.47	2.70	4.23
FOOD	161.7	175.9	192.0	208.1	228.5	248.6	266.7	281.8	296.0	311.9	328.5	8.68	5.35	7.18
APPAREL COMMODITIES	136.1	142.3	150.3	159.8	169.4	177.5	184.5	191.5	198.4	205.3	212.2	5.32	3.56	4.53
GAS AND OIL	158.9	169.9	187.1	173.0	180.9	186.5	191.5	197.4	204.4	211.9	220.0	3.54	3.53	3.53
OTHER NONDURABLES	140.5	157.9	170.4	182.3	196.4	210.8	223.6	235.6	247.5	259.7	278.1	7.20	5.03	6.23
TOTAL NONDURABLES	151.0	163.2	175.7	188.5	203.9	218.5	231.2	242.6	253.8	265.8	278.3	7.21	4.75	6.10
RENT	130.2	137.6	145.0	153.4	161.8	169.7	177.3	184.5	191.5	198.8	206.7	5.20	3.92	4.62
UTILITIES	136.0	151.7	163.1	176.3	191.4	206.3	220.2	232.6	243.1	253.1	264.5	7.73	4.69	6.36
TRANSPORTATION SERVICES	141.9	150.7	159.2	168.1	177.6	187.0	195.8	205.2	216.4	229.3	243.9	5.37	5.65	5.89
OTHER SERVICES	185.3	212.9	238.6	275.3	309.5	337.5	357.4	378.6	407.4	443.5	487.3	10.92	8.06	9.63
TOTAL SERVICES	152.0	166.7	180.5	197.9	214.8	230.2	243.9	257.9	273.4	290.7	310.7	7.91	6.24	7.15
CONSUMER PRICE INDEX	147.7	161.0	173.8	188.4	204.8	219.2	231.5	243.2	255.5	268.9	283.7	7.52	5.21	6.48

TABLE 11.2 -- OTHER PRICE VARIABLES

GOVT TRANSFERS-MEDICAL INSURAN	11.6	13.7	15.7	21.1	25.7	30.3	32.2	33.8	35.5	37.3	38.8	18.56	4.75	12.20
WAGE AND PRICE CONTROL VBL.	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00*	.00*	.00*
PRICES RECEIVED BY FARMERS	185.9	179.3	192.2	204.0	221.5	236.8	249.9	256.8	262.5	271.1	279.8	6.87	2.87	5.07
WPI-FOOD	177.4	186.7	204.4	221.6	245.0	266.9	285.8	298.6	310.0	324.4	339.1	8.88	4.37	6.85
WPI-REFINED PETROLEUM PRODUCTS	223.3	244.7	257.7	269.2	289.7	307.7	326.4	346.1	366.4	388.4	411.1	5.93	5.94	5.93
WPI-METALS AND METAL PRODUCTS	171.9	187.4	195.9	216.9	233.4	242.7	254.2	266.8	280.0	300.2	332.4	6.29	6.94	6.57
WPI-MACHINERY + TRANSPOR. EQUI	136.8	157.9	168.4	179.9	195.9	206.7	215.9	225.7	236.3	248.9	267.5	6.46	5.51	6.03
WPI-OTHER	144.3	163.1	174.7	189.1	199.7	209.6	224.0	235.7	245.1	256.2	269.9	6.56	4.76	5.75
WPI-INDUSTRIAL COMMODITIES	153.8	170.9	181.8	196.5	210.1	220.6	233.4	245.2	256.2	270.0	288.9	6.43	5.48	6.00
WPI-ALL COMMODITIES	160.1	176.3	189.5	205.0	221.7	235.7	250.4	262.6	273.7	287.5	305.0	7.27	5.05	6.27

TABLE 11.3 -- VARIOUS CAPITAL STOCKS

NEW CAR REGISTRATIONS	138.7	132.6	130.8	135.3	137.4	136.7	140.4	147.6	154.7	161.2	167.0	1.15	4.44	2.60
PRODUCERS DURABLE EQUIPMENT	1119.8	1142.7	1163.1	1211.2	1252.6	1270.7	1301.0	1364.0	1445.6	1534.9	1627.1	2.63	5.75	4.00
TOTAL PRIVATE NONRES STRUCTURE	825.6	844.6	861.5	882.0	905.3	927.3	951.7	980.7	1014.6	1054.7	1099.0	2.42	3.66	2.97
MANUFACTURING SECTOR	477.5	490.5	493.8	510.6	529.1	534.8	541.0	563.0	598.0	639.4	683.7	1.98	6.03	3.76
OTHER PRIVATE SECTOR (OBE-SEC)	912.8	931.7	949.6	978.6	1005.8	1024.8	1049.8	1087.8	1134.2	1185.9	1240.6	2.42	4.26	3.23
RESIDENTIAL CONSTRUCTION	1425.4	1456.6	1500.6	1548.2	1579.1	1618.7	1691.6	1776.1	1852.0	1920.0	1981.5	3.04	4.03	3.47
INVENTORIES, CONSTANT PRICES	500.0	490.0	491.7	519.5	531.7	514.8	511.9	543.7	589.2	633.5	674.2	.88	7.13	3.61

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION - BASED ON MAY - C56 LAGGED 2 YRS

TABLE 1.1A -- GROSS NATIONAL PRODUCT IN CURRENT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	7.9	5.1	13.1	12.0	6.9	7.9	11.9	11.3	9.9	9.6	9.2
CONSUMPTION EXPENDITURES	8.9	7.3	11.2	12.0	8.2	7.4	9.6	10.1	9.5	9.3	8.8
AUTOMOBILES AND PARTS	-13.6	-3.0	29.8	15.5	-3.6	4.7	15.8	9.6	6.2	5.9	4.8
OTHER DURABLE GOODS	7.0	2.2	9.2	11.1	4.7	4.8	11.4	11.9	9.3	9.1	8.7
NONDURABLE GOODS	12.5	8.0	10.3	11.6	8.7	7.4	8.7	9.2	8.9	8.7	8.3
SERVICES	9.5	9.1	10.2	12.0	10.1	8.4	9.3	10.6	10.6	10.3	9.9
GROSS PRIVATE INVESTMENT	.0	-14.4	33.3	14.7	-3.7	5.7	27.3	18.9	10.7	9.7	9.7
FIXED INVESTMENT	.6	-1.8	20.6	12.7	1.4	9.8	20.1	14.1	10.2	10.5	10.4
NONRESIDENTIAL STRUCTURES	9.1	.2	15.7	17.1	5.4	2.8	14.6	16.2	13.4	12.8	12.7
EQUIPMENT	10.7	4.3	11.8	15.3	9.7	5.6	11.1	14.1	14.1	15.4	14.1
RESIDENTIAL STRUCTURES	8.1	-1.9	17.9	18.1	3.2	1.2	16.6	18.5	13.0	11.5	11.9
NONFARM	-19.6	-8.3	38.2	-5	-12.6	39.2	37.3	8.6	1.4	3.1	2.5
FARM	-20.2	-8.4	38.5	-6	-12.9	39.9	37.7	8.6	1.3	3.1	2.4
EXPORTS	39.6	5.4	13.8	11.0	10.3	9.0	9.2	9.4	8.1	7.5	8.3
IMPORTS	43.2	4.5	19.0	10.4	8.7	7.5	9.9	9.9	7.3	7.8	7.9
GOVERNMENT PURCHASES	11.9	11.6	10.0	10.0	9.8	9.6	9.9	10.1	10.2	10.5	9.8
FEDERAL	9.7	12.7	9.0	9.4	8.2	8.3	8.9	9.2	9.2	9.3	9.3
STATE AND LOCAL	5.8	11.7	8.6	8.3	7.2	7.4	7.9	8.3	8.3	8.4	8.3
NATIONAL DEFENSE	18.6	14.9	9.6	11.7	10.0	10.1	10.8	10.9	10.7	10.9	11.0
OTHER	13.3	10.9	10.7	10.4	10.8	10.4	10.5	10.6	10.7	11.1	10.0

TABLE 1.2A -- OTHER MAJOR ECONOMIC INDICATORS (PERCENT CHANGE, ANNUAL RATES)

GNP IN 1958 DOLLARS	-2.1	-4.0	5.8	4.3	-1.1	1.0	6.3	6.0	4.4	3.8	3.0
IMPLICIT GNP DEFLATOR	10.3	9.4	6.9	7.4	8.2	6.7	5.3	5.0	5.3	5.6	6.1
CONSUMER PRICE INDEX	11.0	9.1	7.9	8.3	8.7	7.1	5.7	5.2	5.2	5.4	5.7
WHSL PRICE INDEX-TOTAL	18.8	10.2	7.5	8.2	8.1	6.4	6.4	5.0	4.4	5.2	6.3
WHSL PRICE INDEX (INDUS COMM)	22.1	11.1	6.4	8.1	7.0	5.0	5.9	5.2	4.7	5.5	7.2
INDEX OF INDUS PROD. TOTAL	-9	-11.1	9.9	7.8	-2.8	-1.9	7.7	8.9	6.0	4.8	4.0
INDEX OF INDUS PROD. MFG.	-9	-12.0	10.1	7.8	-3.3	-2.3	8.4	9.7	6.4	4.9	4.0
DISPOSABLE PERSONAL INCOME	8.4	9.6	11.5	10.9	8.0	8.3	10.1	9.6	9.2	9.0	8.5
CORP PROFITS BEFORE TAX	14.7	-21.9	28.3	16.3	-13.6	-4	27.9	16.9	8.2	10.2	10.6
CORP PROFITS AFTER TAX	16.7	-17.1	26.7	13.2	-12.9	-3	25.5	15.7	7.2	9.1	9.6
MONEY SUPPLY, NO TIME DEP (M1)	5.3	7.6	7.6	4.2	3.6	5.5	6.9	6.9	6.0	5.6	3.8
MONEY SUPPLY +TD -CD (M2)	7.9	9.6	8.6	5.7	5.6	8.2	9.1	8.6	7.3	6.7	5.1
MONEY SUPPLY WITH TIME DEP	11.2	8.5	8.8	6.1	5.9	8.1	8.9	8.3	7.2	6.6	5.1

TABLE 1.2B -- OTHER MAJOR ECONOMIC INDICATORS (ACTUAL CHANGE)

TREASURY BILL RATE, 91-DAY	.85	-1.72	1.65	1.51	.31	-1.59	-1.60	-.64	.28	.37	.90
COMMERCIAL PAPER RATE, 4-6 MO	1.68	-3.05	2.07	1.97	.24	-1.74	-1.84	-.75	.29	.40	1.01
AA CORPORATE RATE, NEW ISSUES	1.52	.55	1.11	.64	-.50	-1.64	-1.26	-.68	-.19	.03	.33
INDEX OF CAPACITY UTILIZATION	-4.06	-9.25	3.14	1.31	-3.70	-1.67	2.63	2.54	.78	.12	-.37
NEW PASSENGER CAR SALES, SAAR	-2.54	-1.09	1.75	1.08	-1.04	.03	1.51	.89	.34	.29	.18
TOTAL PRIVATE HOUSING STARTS	-.71	-.10	.36	-.23	-.23	.60	.47	-.06	-.10	-.05	-.07
UNEMPLOYMENT RATE	.8	3.4	-.8	-.7	1.2	1.3	-.7	-1.3	-.6	-.6	-.5
PERSONAL SAVINGS RATE	-.3	2.0	.4	-.8	-.2	.7	.5	-.4	-.3	-.2	-.3
FEDERAL GOVT SURPLUS OR DEF	-2.5	-77.4	7.3	23.2	-8.3	-17.8	9.0	17.7	7.9	7.6	10.5

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1984
 TABLE 2.1 -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
													75-80 80-84 75-84
GROSS NATIONAL PRODUCT	821.2	788.4	833.9	869.6	860.0	868.8	923.4	979.1	1022.6	1061.4	1092.8		3.21 4.30 3.69
CONSUMPTION EXPENDITURES	539.5	533.4	550.6	570.7	571.3	575.3	599.2	629.4	657.7	684.6	707.9		2.35 4.26 3.19
DURABLE GOODS	103.1	94.6	103.0	109.0	103.8	103.3	111.9	119.6	124.9	130.2	134.7		3.41 4.75 4.00
NONDURABLE GOODS	223.7	229.1	236.2	238.2	239.8	240.4	246.6	255.9	265.5	274.8	283.1		1.97 3.51 2.65
SERVICES	212.6	215.0	218.5	223.4	227.7	231.7	240.6	253.9	267.3	279.6	290.0		2.28 4.78 3.38
GROSS PRIVATE INVESTMENT	126.7	95.1	119.0	128.7	115.9	115.6	140.7	159.9	168.2	173.9	178.2		8.16 6.08 7.22
FIXED INVESTMENT	118.0	102.6	114.8	121.7	116.1	120.7	138.1	150.1	157.1	163.7	168.8		6.12 5.16 5.88
NONRESIDENTIAL STRUCTURES	94.0	82.8	89.6	98.5	96.2	93.8	103.2	114.9	123.8	131.9	136.3		4.50 7.59 5.85
EQUIPMENT	26.2	25.1	25.6	27.1	28.0	28.2	29.9	31.6	33.8	36.2	38.0		3.59 6.17 4.72
RESIDENTIAL STRUCTURES	67.8	57.8	64.1	71.4	68.2	65.5	73.3	83.3	90.1	95.7	100.3		4.88 8.15 6.32
NONFARM FARM	24.0	19.8	25.2	23.2	19.9	26.9	34.9	35.2	33.2	31.8	30.5		12.00 -3.25 4.94
CHANGE IN INVENTORIES	23.6	19.4	24.8	22.8	19.5	26.5	34.5	34.8	32.8	31.4	30.1		12.14 -3.29 5.00
NONFARM FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4		2.71 .00 1.49
NET EXPORTS OF GOODS AND SERV	9.0	10.3	10.7	12.6	13.1	14.6	15.2	16.3	18.3	19.1	19.5		8.07 6.52 7.37
EXPORTS	71.9	67.2	70.8	73.3	75.7	78.6	81.6	85.2	88.0	90.0	92.3		3.97 3.12 3.59
IMPORTS	62.9	56.9	60.1	60.7	62.6	64.0	66.4	68.9	69.7	70.9	72.8		3.16 2.29 2.77
GOVERNMENT PURCHASES	146.0	149.6	153.5	157.5	159.7	163.3	168.2	173.4	178.4	183.7	187.3		2.37 2.72 2.52
FEDERAL	56.5	58.3	59.1	60.1	59.4	59.6	60.6	61.7	62.7	63.6	64.3		.77 1.50 1.09
NATIONAL DEFENSE	38.1	38.9	39.3	39.6	38.8	38.6	38.8	39.2	39.5	39.7	39.8		7.04 .63 .25
OTHER	18.5	19.4	19.8	20.6	20.7	21.1	21.8	22.5	23.2	23.9	24.5		2.32 3.02 2.63
STATE AND LOCAL	89.5	91.4	94.4	97.4	100.3	103.7	107.7	111.7	115.8	120.1	123.0		3.34 3.39 3.36

TABLE 2.2 -- IMPLICIT PRICE DEFATORS FOR GNP

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
													75-80 80-84 75-84
GROSS NATIONAL PRODUCT	170.2	186.2	199.1	213.9	231.3	246.9	259.9	272.9	287.3	303.3	321.7		6.89 5.48 6.26
CONSUMPTION EXPENDITURES	162.5	176.4	189.9	205.2	221.8	236.6	248.8	260.8	273.3	286.9	302.0		7.13 4.96 6.15
DURABLE GOODS	123.7	135.0	145.1	154.8	164.6	173.1	180.8	187.8	194.2	200.7	207.7		6.01 3.54 4.90
NONDURABLE GOODS	170.0	183.4	197.6	212.2	229.2	245.5	260.1	273.8	287.4	302.0	317.5		7.23 5.11 6.28
SERVICES	173.5	187.2	202.8	222.2	240.0	255.6	269.0	282.0	296.3	312.3	330.8		7.52 5.31 6.53
FIXED INVESTMENT	165.3	186.8	201.4	214.1	227.8	240.3	252.3	264.8	278.9	295.7	316.4		6.20 5.83 6.03
NONRESIDENTIAL STRUCTURES	158.7	180.6	192.9	205.7	222.2	234.2	243.7	254.4	267.5	283.6	304.8		6.18 5.75 5.98
EQUIPMENT	198.7	216.7	237.4	257.8	274.8	287.3	301.4	319.5	341.1	367.5	393.5		6.82 7.29 7.02
RESIDENTIAL STRUCTURES	143.2	164.9	175.1	185.8	200.6	211.3	220.2	229.6	239.9	251.9	269.0		5.95 5.13 5.58
NONFARM FARM	191.4	212.7	231.5	249.8	255.2	261.7	277.7	299.0	321.6	345.8	368.9		5.48 7.36 6.30
CHANGE IN INVENTORIES	191.6	212.9	231.9	250.3	255.6	262.0	277.9	299.2	322.0	346.2	369.4		5.47 7.38 6.31
EXPORTS	183.5	198.0	208.5	220.2	231.2	245.0	259.8	275.5	291.7	309.4	325.6		5.59 5.80 5.68
IMPORTS	161.5	167.4	178.5	194.7	213.3	223.6	236.4	248.3	259.5	273.5	292.6		7.15 5.47 6.39
GOVERNMENT PURCHASES	195.0	220.0	237.2	254.4	271.7	285.5	300.2	314.7	329.3	346.1	365.6		6.42 5.05 5.80
FEDERAL	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1		7.64 5.81 6.82
STATE AND LOCAL	211.8	230.5	247.2	265.0	287.0	307.8	328.4	350.9	375.7	403.2	434.1		7.33 7.23 7.28
ADD: GOVT OUTPUT ORIGINATING	206.8	226.0	242.8	261.4	286.0	308.7	331.1	355.2	381.6	411.2	444.6		7.94 7.64 7.80
	215.0	233.4	249.9	267.3	287.7	307.2	326.9	348.5	372.4	398.9	428.7		6.97 7.01 6.98
	250.8	266.7	284.5	302.3	321.1	341.2	363.1	386.2	411.1	437.1	460.6		6.36 6.13 6.25

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION - BASED ON MAY - C56 LAGGED 2 YRS

TABLE 2.1A -- GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	-2.1	-4.0	5.8	4.3	-1.1	1.0	6.3	6.0	4.4	3.8	3.0
CONSUMPTION EXPENDITURES	-2.3	-1.1	3.2	3.6	.1	.7	4.1	5.0	4.5	4.1	3.4
DURABLE GOODS	-9.2	-8.2	8.8	5.9	-4.8	-.5	8.4	6.8	4.4	4.3	3.5
NONDURABLE GOODS	-2.2	.0	2.4	4.0	.7	.2	2.6	3.8	3.8	3.5	3.0
SERVICES	1.3	1.1	1.6	2.2	1.9	1.7	3.9	5.5	5.3	4.6	3.7
GROSS PRIVATE INVESTMENT	-8.3	-24.9	25.2	8.1	-10.0	-.2	21.7	13.6	5.2	3.4	2.5
FIXED INVESTMENT	-7.3	-13.1	11.9	6.1	-4.7	4.0	14.4	8.7	4.6	4.2	3.1
NONRESIDENTIAL	-.4	-11.9	8.2	9.9	-2.3	-2.5	10.1	11.4	7.8	6.4	4.9
STRUCTURES	3.1	-4.3	2.0	6.2	3.0	1.0	5.9	5.8	6.9	7.1	4.9
EQUIPMENT	-1.7	-14.9	10.9	11.4	-4.4	-4.0	11.9	13.6	8.2	6.2	4.8
RESIDENTIAL STRUCTURES	-27.0	-17.6	27.2	-7.7	-14.5	35.6	29.4	1.0	-5.8	-4.1	-3.9
NONFARM	-27.6	-17.7	27.4	-7.8	-14.8	36.4	29.9	1.0	-5.8	-4.2	-4.0
EXPORTS	7.9	-6.6	5.4	3.6	3.3	3.7	3.9	4.4	3.3	2.3	2.5
IMPORTS	1.5	-9.6	5.8	.9	3.1	2.2	3.8	3.7	1.2	1.7	2.6
GOVERNMENT PURCHASES	1.1	3.1	2.6	2.6	1.4	2.2	3.0	3.1	2.9	3.0	2.0
FEDERAL	-1.3	3.1	1.4	1.7	-1.1	.3	1.6	1.8	1.6	1.5	1.1
NATIONAL DEFENSE	-4.8	2.1	1.1	.6	-2.0	-.6	.9	.8	.8	.6	.2
OTHER	6.8	5.1	2.0	3.8	.6	2.0	3.3	3.4	3.0	3.0	2.7
STATE AND LOCAL	2.8	2.1	3.3	3.2	2.9	3.4	3.8	3.8	3.6	3.8	2.4

TABLE 2.2A -- IMPLICIT PRICE DEFATORS FOR GNP (PERCENT CHANGE, ANNUAL RATES)

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS NATIONAL PRODUCT	10.3	9.4	6.9	7.4	8.2	6.7	5.3	5.0	5.3	5.6	6.1
CONSUMPTION EXPENDITURES	11.4	8.5	7.7	8.0	8.1	6.7	5.2	4.8	4.8	5.0	5.3
DURABLE GOODS	7.8	9.2	7.5	6.7	6.3	5.2	4.4	3.9	3.4	3.4	3.5
NONDURABLE GOODS	14.9	7.9	7.7	7.4	8.0	7.1	5.9	5.3	5.0	5.1	5.1
SERVICES	8.1	7.9	8.4	9.6	8.0	6.5	5.2	4.9	5.1	5.4	5.9
FIXED INVESTMENT	8.5	13.0	7.8	6.3	6.4	5.5	5.0	5.0	5.3	6.0	7.0
NONRESIDENTIAL	9.5	13.8	6.8	6.6	8.0	5.4	4.1	4.4	5.2	6.0	7.5
STRUCTURES	7.2	9.0	9.6	8.6	6.6	4.5	4.9	6.0	6.8	7.7	8.7
EQUIPMENT	10.2	15.2	6.2	6.1	8.0	5.3	4.2	4.3	4.5	5.0	6.8
RESIDENTIAL	10.0	11.1	8.8	7.9	2.2	2.6	6.1	7.7	7.6	7.5	6.7
NONFARM	10.1	11.1	8.9	8.0	2.1	2.5	6.1	7.7	7.6	7.5	6.7
FARM	9.2	7.9	5.3	5.6	5.0	6.0	6.0	5.9	5.9	6.1	5.2
CHANGE IN INVENTORIES	30.2	3.7	6.6	9.1	9.6	4.8	5.7	5.0	4.5	5.4	7.0
EXPORTS	29.5	12.8	7.9	7.2	6.8	5.1	5.2	4.8	4.6	5.1	5.7
IMPORTS	41.2	15.4	12.5	9.4	5.4	5.2	5.9	6.0	6.0	6.0	5.2
GOVERNMENT PURCHASES	10.6	8.9	7.2	7.2	8.3	7.2	6.7	6.8	7.1	7.3	7.7
FEDERAL	11.2	9.3	7.4	7.6	9.4	8.0	7.3	7.3	7.4	7.8	8.1
STATE AND LOCAL	10.2	8.6	7.1	6.9	7.6	6.8	6.4	6.6	6.9	7.1	7.5
ADD: GOVT OUTPUT ORIGINATING	5.2	6.3	6.7	6.2	6.2	6.3	6.4	6.4	6.4	6.3	5.4

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 VARIABLE NAME 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1984

ANNUALIZED COMPOUND
 GROWTH RATES, YEARS-
 75-80 80-84 75-84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1984		
PERSONAL INCOME	1150.5	1240.0	1394.8	1558.3	1692.5	1827.5	2005.9	2207.0	2416.7	2640.3	2872.2	10.10	9.39	9.77
WAGE AND SALARY DISBURSEMENTS	751.2	790.8	896.0	1010.4	1095.8	1183.9	1314.4	1457.7	1601.0	1751.4	1906.4	10.69	9.74	10.26
MANUFACTURING	211.3	209.5	243.7	278.2	290.9	306.1	346.4	391.9	430.0	465.6	501.6	10.58	9.70	10.17
CONSTRUCTION	51.5	48.8	54.8	61.1	65.5	72.5	84.3	94.5	104.3	116.1	128.5	11.55	11.12	11.35
OTHER NONFARM PRIVATE	323.2	352.2	400.8	456.4	503.5	544.7	595.0	651.4	712.6	777.4	849.7	11.06	9.32	10.27
FARM	6.4	7.0	7.9	9.0	9.8	10.7	11.6	12.6	13.5	14.4	15.4	10.65	7.31	9.15
GOVERNMENT	158.8	173.3	188.9	205.8	226.1	249.9	277.1	307.3	340.5	377.9	411.2	9.84	10.36	10.06
OTHER LABOR INCOME	51.4	58.3	66.4	75.4	86.4	99.4	114.4	131.5	151.3	173.9	198.2	14.44	14.45	14.43
PROPRIETORS INCOME	93.0	84.9	69.7	97.3	99.1	100.2	104.8	110.5	115.7	121.9	129.3	4.29	5.40	4.78
BUSINESS AND PROFESSIONAL FARM	61.2	62.5	63.4	66.0	66.4	66.3	69.8	74.3	78.3	83.2	89.3	2.23	6.37	4.04
	31.8	22.4	26.3	31.2	32.7	33.9	35.0	36.2	37.4	38.7	40.0	9.32	3.39	6.64
RENTAL INCOME OF PERSONS	26.5	27.3	28.1	28.9	30.0	31.1	32.5	34.0	35.5	37.1	38.7	3.55	4.50	3.86
DIVIDENDS	32.7	34.8	36.7	43.2	45.4	46.4	49.7	56.4	63.4	69.3	75.5	7.38	11.02	8.97
PERSONAL INTEREST INCOME	103.8	117.8	136.5	158.2	178.7	193.9	207.2	223.8	244.1	266.2	289.3	11.95	8.70	10.48
TRANSFER PAYMENTS	139.8	176.3	195.0	215.7	235.9	260.1	281.5	303.6	328.7	356.7	387.2	9.81	8.30	9.12
OLD-AGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.0	141.8	154.6	168.5	183.7	200.4	11.11	9.03	10.17
UNEMPLOYMENT INSURANCE	7.1	18.1	16.6	15.7	18.9	22.4	19.1	17.7	16.7	16.1	16.1	3.45	6.90	11.28
VETERANS BENEFITS	16.1	18.8	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0	11.71	9.56	10.74
OTHER	46.9	55.7	61.5	67.3	71.9	78.2	85.6	93.9	102.9	112.9	123.7	8.97	9.63	9.25
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.8	78.9	87.6	98.6	110.7	123.2	136.4	150.6	14.42	11.18	12.95
PERSONAL TAX PAYMENTS	170.8	166.1	198.1	231.1	259.8	275.5	297.2	334.3	371.5	411.0	453.6	12.35	11.14	11.80
DISPOSABLE PERSONAL INCOME	979.7	1073.8	1197.0	1327.2	1432.7	1552.0	1708.5	1872.6	2045.0	2229.1	2418.2	9.73	9.07	9.43
PERSONAL OUTLAYS	902.7	967.5	1074.8	1202.8	1301.4	1398.2	1531.5	1686.2	1847.7	2019.5	2188.9	9.62	9.46	9.54
CONSUMPTION EXPENDITURES	876.7	940.7	1045.7	1171.0	1266.8	1361.1	1491.2	1641.6	1798.0	1964.5	2136.3	9.65	9.43	9.54
INTEREST PAID BY CONSUMERS	25.0	25.9	28.2	30.9	33.7	36.1	39.4	43.8	48.8	54.1	59.7	6.72	10.97	9.70
TRANSFERS TO FOREIGNERS	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.00	.00	.00
PERSONAL SAVING	77.0	106.3	122.2	124.3	131.3	153.8	177.0	186.4	197.3	209.5	219.2	10.74	5.49	8.37
DISPOSABLE INCOME 1958\$	602.8	608.8	630.1	646.8	646.1	656.0	686.5	718.0	748.1	776.8	800.7	2.43	3.92	3.09
PERSONAL SAVINGS RATE	7.9	9.9	10.2	9.4	9.2	9.9	10.4	10.0	9.7	9.4	9.1	1.01	3.28	3.92

TABLE 4.2 -- ADDITIONAL EXOGENOUS VARIABLES USED IN INCOME DETERMINATION

SUPPLEMENTS TO WAGES, MFG.	39.2	42.1	48.8	57.5	66.3	76.1	87.5	100.6	115.8	133.1	150.2	15.76	14.46	15.16
SUPPLEMENTS, CONSTRUCTION	5.9	7.0	8.2	9.7	11.0	12.4	14.0	15.8	17.9	20.2	22.5	14.99	12.51	13.87
SUPPLEMENTS, OTHER PRIV NONFRM	39.5	42.5	49.6	58.0	66.4	76.7	88.3	101.5	116.8	134.2	151.5	15.72	14.45	15.14
SUPPLEMENTS, FARM	.5	.7	.8	.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	14.00	6.94	10.79
SUPPLEMENTS, GOVERNMENT	19.9	22.7	26.0	28.9	30.8	33.3	36.2	39.2	42.2	45.2	47.8	9.81	7.21	8.64

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE \$BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

TABLE 5.1 -- FEDERAL GOVERNMENT RECEIPTS AND EXPENDITURES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
FEDERAL GOVERNMENT RECEIPTS	291.1	273.2	320.8	387.1	414.3	437.8	489.3	553.4	613.6	678.5	748.4
PERSONAL INCOME TAXES	131.3	122.3	145.7	168.2	186.5	192.2	204.0	229.3	254.7	281.2	308.5
CORPORATE PROFITS TAXES	49.1	34.1	45.0	55.0	46.1	45.3	60.3	71.8	78.7	87.9	98.5
INDIRECT BUSINESS TAXES	22.0	24.1	26.2	28.6	30.7	32.6	35.2	38.4	41.6	45.1	48.6
CONTRIBUTIONS FOR SOCIAL INSUR	88.7	92.7	103.9	135.3	151.1	167.7	189.7	213.9	238.6	264.4	292.8
FEDERAL GOVERNMENT EXPENDITURE	299.1	358.7	399.0	442.1	477.6	518.8	561.4	607.9	660.1	717.5	776.9
PURCHASES OF GOODS AND SERVICE	116.9	131.8	143.6	157.1	169.9	184.1	200.5	219.0	239.1	261.4	285.8
NATIONAL DEFENSE	78.7	87.9	95.5	103.4	110.9	119.1	128.5	139.1	150.6	163.3	176.9
OTHER	38.2	43.9	48.1	53.7	59.1	65.0	72.0	79.9	88.4	98.1	108.9
TRANSFER PAYMENTS	117.0	150.0	166.4	184.6	202.0	223.3	241.3	259.5	280.4	303.7	329.3
OLD-AGE AND HEALTH BENEFITS	69.8	83.7	95.7	109.3	118.8	130.0	141.8	154.6	168.5	183.7	200.4
VETERANS BENEFITS	16.0	18.8	21.1	23.4	26.2	29.4	32.6	36.0	39.6	43.4	47.0
UNEMPLOYMENT INSURANCE	7.1	18.1	16.6	15.7	18.9	22.4	21.5	19.1	17.7	16.7	18.1
OTHER DOMESTIC	21.4	26.5	29.9	33.1	34.4	37.6	41.3	45.4	50.0	55.1	60.6
TO FOREIGNERS (NET)	2.6	2.9	3.0	3.1	3.6	3.9	4.1	4.4	4.6	4.9	5.1
GRANTS-IN-AID	43.8	52.0	56.3	60.3	64.3	69.7	78.7	89.1	99.6	110.0	118.2
NET INTEREST PAID	18.8	20.9	27.8	34.5	37.7	38.0	37.1	36.5	37.3	38.6	39.8
SUBSIDIES LESS CURRENT SURPLUS	2.1	3.9	4.9	5.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7
SURPLUS OR DEFICIT (-)	-8.1	-85.5	-78.2	-55.0	-63.3	-81.1	-72.1	-54.5	-46.5	-39.0	-28.4

TABLE 5.2 -- STATE AND LOCAL GOVERNMENT RECEIPTS AND EXPENDITURES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
STATE AND LOCAL GOVT RECEIPTS	207.7	229.2	258.5	290.2	318.4	348.6	387.8	432.0	477.6	526.4	575.4
PERSONAL INCOME TAXES	39.5	43.8	52.4	63.0	73.4	83.3	93.3	105.0	116.9	129.8	145.0
CORPORATE PROFITS TAXES	6.7	5.3	6.7	7.9	7.6	8.0	10.0	11.7	13.0	14.6	16.4
INDIRECT BUSINESS TAXES	104.9	113.9	127.5	142.0	154.2	166.6	182.3	200.0	218.8	239.3	260.0
CONTRIBUTIONS FOR SOCIAL INSUR	12.8	14.2	15.6	17.1	18.9	21.1	23.5	26.3	29.3	32.7	35.8
FEDERAL GRANTS-IN-AID	43.8	52.0	56.3	60.3	64.3	69.7	78.7	89.1	99.6	110.0	118.2
STATE AND LOCAL EXPENDITURES	205.9	230.3	254.9	281.2	312.4	345.1	381.5	422.2	467.5	519.6	572.1
PURCHASES OF GOODS AND SERVICE	192.3	213.3	236.0	260.5	288.5	318.6	352.0	389.5	431.2	479.3	527.4
TRANSFER PAYMENTS	20.2	23.6	25.5	27.7	30.7	33.5	36.7	40.4	44.5	49.1	53.9
NET INTEREST PAID	-1.6	-1.2	-1.0	-0.9	-0.9	-0.2	0.1	0.1	0.1	0.1	0.1
CURRENT SURPLUS OF GOVT ENTERP	5.0	5.2	5.6	6.1	6.5	7.0	7.4	7.9	8.4	8.8	9.3
SURPLUS OR DEFICIT (-)	1.6	-1.1	3.6	9.0	5.9	3.5	6.4	9.9	10.1	6.8	3.3

TABLE 5.3 -- OTHER FISCAL POLICY VARIABLES

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
BASE PERSONAL INCOME TAX RATE	.204	.204	.204	.204	.204	.192	.180	.180	.180	.180	.180
BASE CORPORATE INCOME TAX RATE	.480	.480	.480	.480	.480	.480	.480	.480	.480	.480	.480
CHANGE IN SOCIAL SEC TAX RATE	.000	.000	.000	.281	.125	.125	.125	.125	.125	.125	.125
CHANGE IN SOC SEC INCOME BASE	600.0	225.0	275.0	687.5	250.0	250.0	250.0	250.0	250.0	250.0	250.0
PERSONAL SOCIAL INSURANCE TAX	47.9	50.3	55.6	70.8	78.9	87.6	98.6	110.7	123.2	136.4	150.6
EMPLOYER SOCIAL INSURANCE TAX	53.6	56.6	64.0	81.6	91.1	101.2	114.7	129.5	144.7	160.7	178.0
CIVILIAN GOVERNMENT EMPLOYMENT	14.28	14.91	15.33	15.73	16.09	16.53	17.05	17.60	18.13	18.70	19.08
NUMBER OF MEN IN ARMED FORCES	2.23	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
PROGRESS PAYMENTS, DOD	8.4	8.4	8.1	8.0	7.7	7.7	7.7	7.7	7.7	7.7	7.7
INVESTMENT IN GOVT STRUCTURES	38.0	41.7	44.1	47.0	53.3	59.0	65.1	72.2	79.9	87.8	94.6

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 ANNUALIZED COMPOUND
 GROWTH RATES, YEARS-
 75-80 80-84 75-84

TABLE 7.1 -- PERSONAL CONSUMPTION EXPENDITURES IN CURRENT DOLLARS

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
NET PURCHASES OF NEW CARS	34.6	32.0	42.1	49.7	46.5	47.9	56.9	63.1	66.8	70.2	72.9
NET PURCHASES OF USED CARS	2.8	3.0	3.6	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.5
MOBILE HOMES	4.9	4.4	6.4	7.2	7.0	7.7	9.2	9.7	10.4	11.4	12.3
TIRES AND AUTO PARTS	7.4	8.7	10.6	11.7	12.2	13.0	13.8	14.9	16.0	17.2	18.4
AUTOMOBILES AND PARTS	49.7	48.2	62.6	72.3	69.7	72.9	84.5	92.5	98.2	104.0	109.0
MAJOR HOUSEHOLD APPLIANCES	27.7	27.1	28.9	31.6	32.3	32.9	36.2	39.7	42.3	45.5	48.9
FURNITURE AND FURNISHINGS	31.2	31.4	34.7	38.9	40.6	42.7	48.3	55.3	61.2	67.3	73.7
OTHER CONSUMER DURABLES	19.1	21.2	23.4	26.1	28.2	30.2	33.4	37.0	40.7	44.5	48.3
TOTAL DURABLE GOODS	127.5	127.8	149.5	168.8	170.8	178.8	202.4	224.5	242.5	261.3	279.9
FOOD AND BEVERAGES	187.7	207.0	229.6	259.4	285.2	307.9	334.1	364.1	396.1	430.8	468.4
CLOTHING AND SHOES	74.1	78.1	84.7	93.2	98.1	103.5	112.8	123.3	133.8	144.8	155.6
GAS AND OIL	35.9	38.8	42.4	45.9	48.9	51.0	53.7	57.4	61.6	66.0	70.5
OTHER CONSUMER NONDURABLES	82.4	86.5	96.2	107.1	117.3	127.7	140.8	156.0	171.9	188.3	204.4
TOTAL NONDURABLE GOODS	380.2	410.4	452.9	505.6	549.6	590.2	641.5	700.8	763.4	829.8	898.9
HOUSING SERVICES	126.4	138.5	151.5	167.3	180.7	192.2	206.5	223.9	242.7	262.2	282.5
HOUSEHOLD OPERATION	52.9	59.3	64.6	71.1	78.3	84.8	91.3	98.6	106.8	115.8	125.4
TRANSPORTATION SERVICES	26.1	28.9	30.5	33.5	37.2	39.9	42.4	45.5	49.3	53.8	58.7
OTHER CONSUMER SERVICES	163.6	175.8	196.7	224.7	250.3	275.1	307.3	348.3	393.3	441.6	492.9
TOTAL SERVICES	369.0	402.4	443.3	496.5	546.5	592.1	647.3	716.2	792.2	873.4	959.5

TABLE 7.2 -- PERSONAL CONSUMPTION EXPENDITURES DEFLATED BY COMPONENTS OF THE CPI WHERE THEY APPLY INSTEAD OF BY CONSUMPTION DEFATORS. FOR THIS REASON THEY DO NOT ADD TO COMPONENTS OF THE CPI AS GIVEN IN TABLE 7.1, PAGE 4

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
NET PURCHASES OF NEW CARS	29.5	24.7	29.6	33.0	29.2	28.6	32.6	35.0	36.1	37.0	37.4
NET PURCHASES OF USED CARS	2.3	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6	2.7
MOBILE HOMES	3.9	3.2	4.3	4.7	4.5	4.8	5.5	5.6	5.8	6.0	6.3
TIRES AND AUTO PARTS	6.1	6.4	7.4	7.8	8.0	8.2	8.6	8.9	9.2	9.6	9.9
AUTOMOBILES AND PARTS	41.8	36.5	43.7	47.8	44.0	44.1	49.2	52.0	53.7	55.2	56.3
MAJOR HOUSEHOLD APPLIANCES	25.2	22.8	22.8	23.6	22.9	22.5	24.0	25.7	27.0	28.6	30.4
FURNITURE AND FURNISHINGS	22.9	21.4	22.3	23.5	23.3	23.6	25.8	28.6	30.8	32.8	34.8
OTHER CONSUMER DURABLES	13.8	13.7	13.9	14.4	14.4	14.4	15.1	16.0	16.9	17.7	18.4
TOTAL DURABLE GOODS	103.8	94.4	102.7	109.3	104.7	104.5	114.1	122.4	128.3	134.4	139.9
FOOD AND BEVERAGES	116.0	117.6	119.4	124.5	124.7	123.6	124.8	128.5	132.7	136.7	140.6
CLOTHING AND SHOES	54.5	54.8	56.3	58.3	57.9	58.2	60.9	63.8	66.6	69.3	71.7
GAS AND OIL	22.6	24.1	25.4	26.5	27.0	27.4	28.1	29.1	30.1	31.1	32.1
OTHER CONSUMER NONDURABLES	58.6	54.7	56.4	58.7	59.7	60.4	62.7	65.7	68.7	71.6	73.8
TOTAL NONDURABLE GOODS	251.8	251.3	257.5	268.0	269.3	269.7	276.5	287.1	298.2	308.7	318.2
HOUSING SERVICES	97.1	100.6	104.5	109.0	111.7	113.3	116.5	121.4	126.7	131.9	136.5
HOUSEHOLD OPERATION	38.9	39.1	39.6	40.3	40.9	41.2	41.5	42.4	44.0	45.8	47.4
TRANSPORTATION SERVICES	18.4	19.1	19.1	20.0	20.9	21.4	21.7	22.2	22.9	23.5	24.1
OTHER CONSUMER SERVICES	88.4	82.6	82.5	81.7	81.0	81.6	86.1	92.2	96.7	99.8	101.5
TOTAL SERVICES	242.7	241.4	245.7	251.0	254.6	257.5	265.8	278.2	290.3	301.0	309.5
NEW PASSEN CAR SALES, TOTAL	9.00	7.91	9.66	10.74	9.70	9.73	11.24	12.12	12.46	12.76	12.94
NEW PASSEN CAR SALES, DOMESTIC	7.57	6.23	7.80	8.78	7.70	7.68	9.12	9.91	10.14	10.34	10.41
NEW PASSEN CAR SALES, FOREIGN	1.43	1.68	1.85	1.96	2.00	2.05	2.12	2.21	2.32	2.42	2.53
UNIT VALUE, NEW CARS, \$000	3.85	4.05	4.35	4.63	4.79	4.92	5.06	5.21	5.36	5.50	5.63

PLEASE NOTE THAT THE COMPONENTS OF THE CPI CORRESPONDING TO THIS TABLE ARE GIVEN IN TABLE 11.1

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .IRLILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-75-80	80-84	75-84
TABLE 8.1 -- INVESTMENT EXPENDITURES IN CURRENT DOLLARS														
FIXED NONRESIDENTIAL INVESTMENT	149.2	149.6	173.0	202.6	213.7	219.6	251.6	292.4	331.6	374.1	421.6	10.97	13.77	12.19
TOTAL NONRES STRUCTURES	52.0	54.3	60.7	70.0	76.8	81.1	90.1	101.1	115.3	133.1	151.8	10.66	13.92	12.08
COMMERCIAL STRUCTURES	16.0	15.2	18.0	20.7	24.3	28.4	33.5	37.3	41.7	48.5	56.7	17.10	14.01	15.70
INDUSTRIAL STRUCTURES	7.8	8.6	9.9	13.2	13.4	11.8	13.1	14.6	16.7	19.6	23.3	8.73	14.31	11.16
OTHER NONRES STRUCTURES	28.3	30.5	32.8	36.2	39.1	40.8	43.5	49.2	56.9	65.0	72.8	7.39	13.73	10.15
PRODUCERS DURABLE EQUIPMENT	97.1	95.3	112.3	132.6	136.8	138.5	161.5	191.4	216.2	241.0	269.8	11.14	13.69	12.25
MANUFACTURING SECTOR	45.8	45.1	49.4	61.0	64.5	61.9	70.2	86.0	101.0	115.7	131.8	9.24	17.06	12.64
OTHER FIXED BUS INV, OBE-SEC	66.4	67.8	78.1	89.8	95.1	99.2	112.2	127.8	143.1	160.1	179.4	10.60	12.46	11.41
RESIDENTIAL STRUCTURES	46.0	42.1	58.3	58.0	50.7	70.5	96.8	105.2	106.6	109.9	112.6	18.10	3.85	11.53
TOTAL NONFARM PRIVATE	45.2	41.5	57.4	57.1	49.7	69.6	95.8	104.1	105.4	108.7	111.3	18.24	3.83	11.59
NEW FAMILY DWELLING UNITS	36.9	33.3	48.9	47.9	40.5	58.5	82.4	88.8	88.8	90.8	92.3	19.86	2.90	11.99
SINGLE-FAMILY DWELLINGS	25.7	26.0	35.9	34.1	31.6	43.7	59.0	60.9	56.3	52.7	50.9	17.80	-3.63	7.73
MULTI-FAMILY DWELLINGS	11.3	7.3	13.0	13.7	8.9	14.8	23.4	27.8	32.5	38.1	41.5	26.26	15.39	21.28
ADDITIONS AND ALTERATIONS	8.3	8.2	8.5	9.2	9.3	11.0	13.4	15.3	16.7	17.9	19.0	10.49	9.04	9.03
CHANGE IN INVENTORIES	14.2	-12.4	7.7	13.5	-5	-11.3	6.5	24.4	28.8	28.1	27.6	.00*	43.70	.00*

TABLE 8.2 -- INVESTMENT EXPENDITURES IN 1956 DOLLARS

FIXED NONRESIDENTIAL INVESTMENT	94.0	82.8	89.6	98.5	96.2	93.8	103.2	114.9	123.9	131.9	138.3	4.50	7.59	5.85
TOTAL NONRES STRUCTURES	26.2	25.1	25.6	27.1	28.0	29.9	31.6	33.8	36.2	38.0	40.2	3.59	6.17	4.72
COMMERCIAL STRUCTURES	8.1	7.0	7.6	8.0	8.9	9.9	11.1	11.7	12.2	13.2	14.2	9.62	6.26	8.10
INDUSTRIAL STRUCTURES	3.9	4.0	4.2	5.1	4.9	4.1	4.3	4.6	4.9	5.3	5.6	1.77	6.54	3.86
OTHER NONRES STRUCTURES	14.2	14.1	13.8	14.0	14.2	14.2	14.4	15.4	16.7	17.7	18.2	.52	6.00	2.92
PRODUCERS DURABLE EQUIPMENT	67.8	57.8	64.1	71.4	68.2	65.5	73.3	83.3	90.1	95.7	100.3	4.88	8.15	6.32
MANUFACTURING SECTOR	28.9	25.0	25.6	29.6	29.0	26.4	28.8	33.8	37.7	40.8	43.2	2.85	10.70	6.26
OTHER FIXED BUS INV, OBE-SEC	41.8	37.5	40.5	43.6	42.8	42.3	46.0	50.2	53.5	56.4	58.8	4.16	6.34	5.12
RESIDENTIAL STRUCTURES	24.0	19.8	25.2	23.2	19.9	26.9	34.9	35.2	33.2	31.8	30.5	12.00	-3.25	4.94
TOTAL NONFARM PRIVATE	23.6	19.4	24.8	22.8	19.5	26.5	34.5	34.8	32.8	31.4	30.1	12.14	-3.29	5.00
NEW FAMILY DWELLINGS	19.3	15.6	21.1	19.1	15.8	22.3	29.6	29.7	27.6	26.2	25.0	13.69	-4.15	5.38
SINGLE-FAMILY DWELLINGS	13.4	12.2	15.5	13.7	12.4	16.7	21.2	20.4	17.5	15.2	13.8	11.72	-10.23	1.37
MULTI-FAMILY DWELLINGS	5.9	3.4	5.6	5.5	3.5	5.6	8.4	9.3	10.1	11.0	11.2	19.79	7.49	14.14
ADDITIONS AND ALTERATIONS	4.3	3.8	3.7	3.7	3.6	4.2	4.8	5.1	5.2	5.2	5.1	4.75	1.56	3.32
FARM	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	2.71	.00	1.49
CHANGE IN INVENTORIES	6.7	-7.5	4.2	7.0	-2	-5.1	2.7	9.8	11.1	10.3	9.4	.00*	36.85	.00*

TABLE 8.3 -- OTHER VARIABLES IN INVESTMENT SECTOR

SINGLE-FAMILY HOUSING STARTS	.88	1.06	.88	.84	1.20	1.44	1.32	1.12	1.12	.98	.89	10.36	-11.47	.06
MULTI-FAMILY HOUSING STARTS	.45	.35	.54	.49	.53	.76	.83	.92	1.02	1.02	1.03	16.52	8.05	12.66
TOTAL PRIVATE STARTS	1.34	1.24	1.60	1.37	1.73	2.20	2.14	2.04	1.99	1.92	1.92	12.26	-3.36	5.02
NUMBER OF MOBILE HOMES, SAAR	.33	.29	.43	.49	.50	.53	.61	.63	.65	.69	.72	15.81	4.07	10.43
TOTAL STARTS INCL MOBILE HOMES	1.67	1.53	2.03	1.85	2.27	2.82	2.77	2.69	2.68	2.68	2.68	12.98	-1.59	6.25
AVG. PRICE S-F HOUS START, \$000	28.20	30.83	34.07	37.38	38.19	38.67	41.47	45.14	48.81	52.69	56.45	6.11	8.01	6.94
AVG. PRICE M-F HOUS START, \$000	20.67	22.75	24.85	26.84	28.84	30.49	32.06	34.00	36.00	38.00	39.75	7.10	5.52	6.39
DUMMY VBL. FOR INV. TAX CREDIT	.035	.056	.077	.055	.070	.085	.100	.100	.100	.100	.100	8.70	4.15	6.65
VACANCY RATE, RESIDENCES	6.2	6.0	5.9	5.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	-3.66	.00	-2.05

* GROWTH RATE NOT CALCULATED

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 ANNUALIZED COMPOUND GROWTH RATES-YEARS-
 75-80 80-84 75-84

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
RENTAL COST, EQUIPMENT	.270	.270	.266	.282	.279	.255	.230	.213	.211	.210	.212
RENTAL COST, STRUCTURES	.303	.286	.297	.300	.287	.258	.238	.229	.228	.230	.236
DEPRECIATION FACTOR-EQUIPMENT	.771	.776	.776	.776	.776	.776	.776	.776	.776	.776	.776
DEPRECIATION FACTOR-STRUCTURES	.520	.520	.520	.520	.520	.520	.520	.520	.520	.520	.520
NEW ORDERS, DEFLATED	54.4	44.6	50.6	55.9	55.5	53.8	57.4	63.4	67.9	71.4	74.3
INDEX OF IND. PROD., MFG	124.0	109.2	120.2	129.7	125.4	122.5	132.8	145.7	155.0	162.6	169.1
FULL CP INDEX OF INDUS PROD	104.0	142.0	150.2	159.4	161.6	168.9	179.5	189.2	198.2	207.1	207.1
INDEX OF CAPACITY UTILIZATION	86.14	76.89	80.04	81.34	77.64	75.98	78.60	81.14	81.92	82.04	81.67

TABLE 9.1 -- EXPORTS, EXPORTS, AND THEIR PRICE DEFLATORS
 IMPORTS, EXPORTS, AND IMPORTS IN CURRENT DOLLARS

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
EXPORTS OF AGRICULTURAL GOODS	22.2	23.8	25.2	26.2	27.9	29.6	31.4	33.3	35.3	37.5	39.6
EXPORTS OF PETROLEUM PRODUCTS	.8	.9	.9	.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3
EXPORTS OF NEW CARS	4.7	5.1	5.9	6.6	6.9	7.1	7.3	7.5	7.9	8.1	8.3
EXPORTS OF SERVICES	40.8	37.3	40.2	43.2	45.3	49.0	53.2	57.4	61.4	66.1	71.0
EXPORTS OF OTHER GOODS	71.8	80.6	95.8	109.6	124.6	137.3	151.6	168.1	183.2	197.7	216.3
IMPORTS OF AGRICULTURAL GOODS	10.5	8.9	9.3	10.0	10.5	11.1	11.7	12.4	13.2	14.0	14.8
IMPORTS OF PETROLEUM PRODUCTS	24.3	29.2	33.5	34.7	35.0	35.0	35.0	35.0	35.0	35.0	35.0
IMPORTS OF NEW CARS	6.9	7.4	9.2	10.5	11.6	12.8	14.3	16.1	18.2	20.6	23.2
IMPORTS OF SERVICES	36.4	36.8	40.0	43.2	47.4	51.8	56.0	60.6	65.7	71.6	75.8
IMPORTS OF OTHER GOODS	60.1	61.9	79.7	91.0	101.5	110.9	126.4	143.5	154.9	168.3	185.3

TABLE 9.2 -- EXPORTS AND IMPORTS IN 1958 DOLLARS

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
EXPORTS OF AGRICULTURAL GOODS	11.9	13.3	13.1	12.8	12.6	12.5	12.6	13.0	13.5	13.8	14.1
EXPORTS OF PETROLEUM PRODUCTS	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3
EXPORTS OF NEW CARS	3.9	4.0	4.3	4.5	4.4	4.3	4.2	4.2	4.1	4.0	3.9
EXPORTS OF SERVICES	21.0	17.0	16.9	17.0	16.7	17.2	17.7	18.2	18.7	19.1	19.4
EXPORTS OF OTHER GOODS	34.9	32.7	36.3	38.8	41.8	44.3	46.8	49.5	51.5	52.8	54.5
IMPORTS OF AGRICULTURAL GOODS	5.1	4.7	4.9	5.1	5.2	5.4	5.5	5.7	5.9	6.1	6.2
IMPORTS OF PETROLEUM PRODUCTS	5.8	6.6	6.9	6.8	6.4	6.0	5.7	5.3	5.0	4.7	4.5
IMPORTS OF NEW CARS	5.8	5.5	6.4	6.9	7.1	7.5	8.0	8.6	9.3	10.0	10.9
IMPORTS OF SERVICES	16.6	14.5	14.0	13.9	14.4	15.0	15.3	15.6	16.0	16.4	16.5
IMPORTS OF OTHER GOODS	29.5	25.6	28.0	28.1	29.4	30.2	32.0	33.7	33.6	33.7	34.6

TABLE 9.3 -- UNIT-VALUE INDICES AND PRICE INDICES OF WORLD TRADE

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
IMPLICIT DEFLATOR, TOTAL EXP	195.0	220.0	237.2	254.4	271.7	285.5	300.2	314.7	329.3	346.1	365.6
IMPLICIT DEFLATOR, NON AG EXP	198.2	234.9	251.9	269.4	285.5	298.1	312.7	328.8	345.5	364.4	386.5
IMPLICIT DEFLATOR, OTHER EXP	205.9	246.4	264.1	282.5	297.8	309.6	323.7	339.3	355.8	374.7	396.8
IMPLICIT DEFLATOR, TOTAL IMP	219.7	253.5	285.2	312.1	329.0	346.0	366.3	388.3	411.7	436.4	459.1
IMPLICIT DEFLATOR, NON AG IMP	189.3	227.8	248.0	265.0	274.0	282.2	300.0	315.1	331.1	348.0	365.0
IMPLICIT DEFLATOR, OTHER IMP	202.8	241.6	284.5	324.3	344.9	367.4	394.6	425.7	461.5	499.9	535.0
IMPLICIT DEFL, EXPORTS NEW CARS	120.3	128.7	137.5	146.5	156.0	164.0	172.1	181.1	190.9	200.9	211.0
IMPLICIT DEFL, IMPORTS NEW CAR	119.3	134.1	144.2	153.1	162.5	170.1	178.9	187.1	196.0	204.9	213.0
PRICE INDEX, PETROLEUM IMPORTS	416.6	445.1	487.5	509.0	544.7	583.5	619.4	656.6	696.1	737.4	779.0
INTL TRADE PRICE, MFG, GOODS	196.0	210.5	222.5	233.1	240.6	250.1	260.1	270.8	281.1	292.0	303.0
INDEX OF WORLD TRADE VOLUME	325.0	331.5	348.0	372.9	401.2	428.7	455.1	482.2	511.1	541.3	574.0

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION -- BASED ON MAY - C56 LAGGED 2 YRS
GROWTH RATES, YEARS-
75-80 80-84 75-84

VARIABLE NAME
LABOR FORCE=EMPLOYMENT AND UNEMPLOYMENT, HOURS AND WAGES, AND LABOR COSTS AND PRODUCTIVITY
TABLE 10.1 -- EMPLOYMENT AND UNEMPLOYMENT

Table with columns for variable names (POPULATION, 16 AND OVER; CIVILIAN LABOR FORCE; EMPLOYMENT, ARMED FORCES; etc.) and rows for years 1974-1984 and annualized compound growth rates.

TABLE 10.2 -- HOURS AND WAGES

Table with columns for variable names (HOURS WORKED PER WEEK, MFG.; HOURLY WAGE RATE, CONSTRUCTION; etc.) and rows for years 1974-1984 and annualized compound growth rates.

TABLE 10.3 -- LABOR COSTS AND PRODUCTIVITY

Table with columns for variable names (UNIT LABOR COSTS, MFG.; LABOR PRODUCTIVITY, MFG.; etc.) and rows for years 1974-1984 and annualized compound growth rates.

TABLE 10.4 -- OUTPUT ORIGINATING BY SECTOR

Table with columns for variable names (MANUFACTURING SECTOR; CONSTRUCTION SECTOR; NON MANUFACTURING SECTOR; FARM SECTOR; GOVERNMENT SECTOR) and rows for years 1974-1984 and annualized compound growth rates.

TEN YEAR FORECAST PREPARED BY CHASE ECONOMETRICS, INC. ON JUN 25 1975
 THE PRINCIPAL ASSUMPTIONS FOR THIS RUN ARE .1BILLION - BASED ON MAY - C56 LAGGED 2 YRS
 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
 TABLE 11.1 -- COMPONENTS OF THE CONSUMER PRICE INDEX

VARIABLE NAME	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
NEW CARS	117.5	129.7	141.8	150.7	159.3	167.4	174.3	180.3	185.2	189.8	194.6	6.09
USED CARS	122.6	139.6	155.0	159.4	166.2	175.1	181.8	188.0	194.5	199.9	205.0	5.42
MOBILE HOMES	128.5	140.9	149.0	155.5	157.9	164.1	170.8	177.1	184.0	191.0	199.0	3.93
TIRES AND PARTS	123.9	137.1	145.0	152.4	155.9	160.0	163.2	169.9	175.6	181.8	187.8	3.54
AUTOMOBILES AND PARTS	119.2	132.0	143.2	151.3	158.3	165.4	171.7	177.8	183.1	188.3	193.5	5.40
APPLIANCES	109.7	118.8	126.7	134.0	140.8	146.7	151.2	154.6	156.9	158.9	160.9	4.95
FURNITURE AND BEDDING	136.0	146.4	155.5	165.0	174.1	181.2	187.0	193.0	198.9	205.1	211.5	5.02
OTHER DURABLE COMMODITIES	138.0	158.6	167.8	181.3	196.1	209.8	220.8	230.9	240.7	251.1	262.6	7.38
HOUSEHOLD DURABLES	128.9	140.7	150.4	160.5	170.4	178.9	186.4	193.3	199.5	206.0	213.3	5.78
CONSUMER DURABLES	133.9	149.3	161.6	172.8	185.2	196.9	206.7	215.7	224.4	233.4	243.2	6.73
IMPLICIT DEFL. FOR DURABLES	123.1	135.4	145.5	154.5	163.2	171.0	177.3	184.0	189.4	194.4	200.0	5.55
FOOD	161.7	176.0	192.2	208.4	228.7	249.0	267.6	283.4	298.4	315.1	333.0	8.74
APPAREL COMMODITIES	136.1	142.4	150.3	159.8	169.4	177.7	185.3	193.0	200.8	208.9	217.1	5.40
GAS AND OIL	158.9	160.9	167.0	173.0	180.9	186.5	191.5	197.4	204.4	211.9	220.0	3.54
OTHER NONDURABLES	140.5	150.1	170.7	182.6	196.7	211.3	224.6	237.3	250.0	263.0	276.9	7.28
TOTAL NONDURABLES	151.0	163.3	175.9	188.7	204.1	218.8	232.0	244.0	255.9	268.8	282.5	7.27
RENT	130.2	137.6	145.0	153.4	161.8	169.6	177.2	184.4	191.5	198.8	206.9	5.19
UTILITIES	136.0	151.7	163.1	176.3	191.4	206.2	220.0	232.3	242.9	253.0	264.6	7.72
TRANSPORTATION SERVICES	141.9	150.7	159.2	168.0	177.4	186.7	195.3	204.6	215.7	228.6	243.1	5.32
OTHER SERVICES	185.3	212.9	238.5	275.0	309.1	336.9	356.8	377.8	406.5	442.3	485.9	10.88
TOTAL SERVICES	152.0	160.7	180.4	197.8	214.7	229.9	243.5	257.4	272.8	290.1	310.0	7.88
CONSUMER PRICE INDEX	147.7	161.1	173.9	188.4	204.8	219.3	231.8	243.9	256.6	270.5	285.9	7.55

TABLE 11.2 -- OTHER PRICE VARIABLES

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
GOVT TRANSFERS, MEDICAL INSURAN	11.6	13.7	15.7	21.1	25.7	30.3	32.2	33.8	35.5	37.3	38.8	18.56
WAGE AND PRICE CONTROL VBL.	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.00*
PRICES RECEIVED BY FARMERS	185.9	179.3	192.2	204.0	221.5	236.8	249.9	256.8	262.5	271.1	279.8	6.87
WPI, FOOD	177.4	186.9	204.6	221.8	245.2	267.2	286.5	299.8	311.8	326.8	342.5	8.93
WPI, REFINED PETROLEUM PRODUCTS	223.3	244.7	257.7	269.2	289.7	307.7	326.4	346.1	366.4	386.4	411.1	5.93
WPI, METALS AND METAL PRODUCTS	171.9	187.3	198.0	216.9	233.6	243.0	254.7	267.8	281.5	302.3	335.2	6.34
WPI, MACHINERY + TRANSPOR. EQUI	136.8	157.9	168.5	179.9	196.0	206.8	216.3	226.5	237.6	250.8	270.0	6.50
WPI, OTHER	144.3	163.1	174.8	189.2	199.9	209.9	224.6	236.6	246.5	258.0	272.3	6.60
WPI, INDUSTRIAL COMMODITIES	153.8	170.9	181.8	196.6	210.3	220.8	233.9	246.0	257.5	271.8	291.3	6.47
WPI, ALL COMMODITIES	160.1	176.4	189.6	205.1	221.8	236.0	251.0	263.5	275.2	289.5	307.7	7.31

TABLE 11.3 -- VARIOUS CAPITAL STOCKS

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	ANNUALIZED COMPOUND GROWTH RATES, YEARS-
NEW CAR REGISTRATIONS	138.7	132.5	130.7	135.1	137.2	136.5	140.1	147.0	153.9	160.1	165.7	4.28
PRODUCERS DURABLE EQUIPMENT	1119.8	1142.6	1162.3	1209.7	1251.0	1269.1	1299.1	1361.1	1441.2	1528.7	1618.9	2.60
TOTAL PRIVATE NONRES STRUCTURE	825.6	844.6	861.4	881.8	905.1	926.9	951.3	980.1	1013.8	1053.5	1097.3	2.41
MANUFACTURING SECTOR	477.5	490.4	493.2	509.3	527.6	533.1	538.9	560.3	594.2	634.3	677.0	1.91
OTHER PRIVATE SECTOR (OBE-SEC)	912.8	931.6	949.4	978.0	1005.2	1024.2	1049.0	1086.7	1132.5	1183.5	1237.2	2.40
RESIDENTIAL CONSTRUCTION	1425.4	1456.6	1500.9	1548.9	1580.5	1620.3	1693.2	1777.4	1853.0	1920.7	1981.6	3.06
INVENTORIES, CONSTANT PRICES	500.0	489.9	490.7	517.9	530.2	513.3	510.2	540.9	584.7	627.3	666.1	.81

* GROWTH RATE NOT CALCULATED

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