RSQE
FORECASTS

Research Seminar in Quantitative Economics
The University of Michigan
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Director

The U.S. Economic Outlook for 1989:

Executive Summary

Six Years Up

The U.S. Economy is now completing year six of the post-1982 economic expansion.

The first half of this year produced a spurt of rapid growth following the temporary slowdown of demand in reaction to the October '87 stock market crash.

An extraordinary pace of real export growth -- 17 percent at annual rate -- and a weak import growth rate of only 1 1/2 percent also contributed to the strength of demand for U.S. output in the first half '88.

Second-Half Strength

For the second half of '88, continued expansion, but at a slower, more sustainable, pace.

Export growth just can't stay at that double-digit pace. Expect import growth to speed up; we're nowhere near ready to import fewer (or even no more) goods today than we did yesterday! And last summer's drought will have its biggest hold-down effect on 4th quarter GNP.

The 2nd half of '88 will get its real pluses from:

* *Capital investment by businesses -- strong recently and critically important.*
* *State & local governments -- budgets are generally sound, and they're buying.*
* *Residential building -- weak recently but beginning to recover as mortgage rates ease.*

And consumer purchasing will follow along -- not leading, but not much of a drag either.

What Comes After Six Up?

Right, a seventh year up. The expansion will continue through 1989, at least. The first half of the year will find a little extra growth from a recovering farm sector -- more acreage being planted, more normal weather, better production yields; then a settling in to a production growth pace of 2 to 2 1/2 percent. Pacing 1989:

* *Producers' durable equipment -- up 6.5 percent, real.*
* *Government -- still mostly state & local.*
* *Another healthy gain in exports -- up 7 to 7 1/2 percent in real terms.*
* *Moderate import growth -- up only 4 percent real over calendar '88 level.*

For most of '89 civilian unemployment can be expected to wander in a narrow range, at or just under 5 1/2 percent.

A Cautious Fed Likely

With little doubt about continued strength early next year, the Fed can be expected to make a cautionary move. We're expecting interest rates to get nudged up a bit by Fed action during 1989's first quarter.

NOT, however, a repeat of spring-summer '88 which pushed short rates up 150 basis points. That came after the Fed had first driven interest

over .....

rates down. Rates are still up now and the Fed will push just a little higher early next year -- an anti-inflation statement by the Fed. And it will have some impact, one of the reasons we don't see residential building as a leading sector for next year.

The Inflation Outlook

Inflation is higher than when we had more unemployment and a stronger dollar, but the current situation is surely preferable, and we're not faced with any imminent surge of inflationary momentum. That's exactly what the Fed is out to maintain!

A year from now consumer prices will be inflating at a rate of 5 to 5 1/2 percent, core industrial prices more like 4 percent.

A New President With an Old Problem

Last year's budget summit worked to keep the FY '88 federal deficit within legal distance of the Gramm-Rudman-Hollings, GRH, target. Now the status-quo budget path and likely economic growth path for '89 will give President Bush a little breathing room; no really tough decisions needed quickly to wind up GRH-legal for fiscal '89.

But 1990's a different story. In all likelihood, planning for the fiscal '90 budget will require a scheme for fiscal restraint -- some combination of less money out and more money in -- adding up to $25-30 billion. The solution that's now on Mr. Bush's lips will be very hard to implement.

Will President Bush really lead, or just follow his predecessor? That's the #1 economic question as we get ready for the Bush years. A new and more realistic answer wouldn't have to be whispered.

	Actual	RSQE Forecast		
	1987	1988	1989	1990
GNP (bill. of current $'s)	4526.7	4854.2	5196.6	5559.8
Inflation (GNP Deflator, % Change)	3.3	3.3	4.1	4.5
Real GNP (bill. of '82 $'s)	3847.0	3993.7	4108.5	4205.7
% Change	3.4	3.8	2.9	2.4
Civilian Unemployment Rate (%)	6.2	5.5	5.5	5.6
Capacity Utilization, Manufacturing (%)	81.0	83.4	84.9	85.3
Auto Sales (mill. of units)	10.3	10.7	10.4	10.6
Private Housing Starts (thous. of units)	1634	1468	1443	1481
3-Month Treasury Bill Rate (%)	5.8	6.6	7.1	6.4
Aaa Corporate Rate (%)	9.4	9.7	9.5	9.5
Real Disposable Income (bill. of 82 $'s)	2686.3	2784.4	2848.6	2867.5
% Change	1.7	3.6	2.3	0.7
Corporate Profits Before Tax (bill. of current $'s)	276.7	305.1	303.6	324.1
Federal Deficit (Fiscal Year, bill. of current $'s)	163.5	149.0	141.0	111.1

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THE U.S. ECONOMIC OUTLOOK FOR 1989

Saul H. Hymans, Janet C. Wolfe
The University of Michigan

I. Review of the Economic Forecast for 1988

At the time of last year's Economic Outlook Conference we had just suffered one momentous economic shock and we were monitoring the newswires to see whether we might avoid the next one that seemed to be looming on the horizon. The one just suffered, of course, was the stock market crash on the 19th of October 1987, an event common to most of the major securities markets around the world. There was no lack of economists, forecasters, analysts, observers, and pundits of note who were vociferously certain that so close a replay of the dimensions of the stock market crash of 1929 had to result in you-know-what, the GREAT D word, in '88. Anyone who might have thought that daily, weekly, or even monthly movements in the securities markets were so dominated by efficient reactions to real economic fundamentals as to be highly predictive of the same, should by now have learned better. The near-term fortunes of the stock market and the economy are connected by a long rope, not a tow bar.

As to the news we were anxiously awaiting, it was whether the budget summit then in progress would break the fiscal deadlock between the White House and the Congress. That is, would the summit find a way to cut about $23 billion out of a projected $67 billion increase in federal spending so as to be

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Gramm-Rudman-Hollings (GRH) legal for fiscal '88? Many, we included, thought that a negative answer at a time of precedent-setting turmoil in the international financial markets would have left the economy open to substantial risk of serious monetary disturbance. On November 20th the budgeters at the summit announced an agreement. Whether because of that outcome or not, the economy has not been impacted by any serious monetary disturbance during the ensuing year. And the federal budget deficit for fiscal '88 is approximately on target.

Correctly rejecting a mechanistic projection from the stock market to the economy, and correctly assuming that there would be a budget agreement and no monetary disaster, may have been necessary conditions for an accurate forecast of GNP for 1988, but they were hardly sufficient.

We are now estimating that 1988 will register an increase in real GNP of 146.7 billion 1982 dollars — a rate of growth amounting to 3.8 percent. As shown in the bottom line of Table 1, the forecast we presented a year ago projected an increase of only $109.6 billion, or 2.9 percent. This implies a forecast error of about $37 billion, or 9/10 of one percentage point, which is one of the bigger Outlook Conference forecast errors. As usual, there is much to be learned from studying our errors; but first the small comfort of knowing that we were more accurate than most, at least in terms of the single dimension of real GNP.

To provide a perspective which makes the point, Table 2 summarizes certain aspects of the forecasts which appeared in the well-known Blue Chip Economic Indicators published last November 10th. These were all early November forecasts and included an RSQE figure of 2.8 percent real growth based on a preliminary version of what became our Outlook Conference forecast. If the Blue Chip regulars can be regarded as representative of the community of serious professional economic forecasters, then about 70 percent of that community were less accurate, and nearly half a great deal less accurate than we were a year ago. On the other side of the distribution, nearly 25 percent were more accurate, but only one of these was a class apart from us in accuracy.

The panels of Chart 1 and the data in Table 3 provide a more inclusive basis for evaluating the forecast we made a year ago by focussing on the dynamic and substantive details in the message we were

TABLE 1.
Review of Past GNP Forecasts (Figures represent change in GNP over the preceding year measured in billions of 1954 $'s through 1965, billions of 1958 $'s from 1966 through 1975, billions of 1972 $'s from 1976 through 1985, & billions of 1982 $'s beginning in 1986)

	RSQE Forecast			Observed
	Preceding November	March	August	
1953	13.0			15.5
1954	−4.5			−5.9
1955	4.4			29.6
1956	9.0			8.2
1957	9.1			7.7
1958	−2.9			−7.3
1959	9.0			27.2
1960	8.5			11.3
1961	7.4			7.8
1962	27.5			27.1
1963	14.1			15.9
1964	23.9			24.1
1965	15.8			30.8
1966	23.9	29.2†		40.3
1967	28.0	24.5†		17.1
1968	29.0	—		31.4
1969	6.1	20.9†		19.0
1970	13.5	6.3	−1.2	−3.1
1971	23.6	27.6	21.2	23.8
1972	42.1	40.0	46.9	46.2
1973	55.6	57.1	49.1	46.7
1974	19.3	4.5	−9.6	−18.0
1975	−9.4	−18.9	−28.8	−24.5
1976	70.3	79.7††	74.3	70.7
1977	54.8	62.0	66.3	67.5
1978	47.8	54.8	46.6	58.7
1979	28.2	38.9	21.5	32.4
1980	−3.6	10.0	−19.7	−4.4
1981	19.8	23.7	26.3	37.5
1982	16.9	−2.0	−18.8	−32.2
1983	50.7	46.4	47.6	54.7
1984	99.3	95.2	110.8	104.6
1985	62.3	74.7	41.6	54.9*
1986	106.0**	117.3	84.4	103.0
1987	123.2	115.8	93.2	125.3
1988	109.6	89.6	147.5	146.7***

† April of the year shown.
†† June of the year shown.
* Obtained by applying 1985 growth rate (as of July 1988) to last published (November 1985) value of 1972 dollar real GNP for 1984.
** Obtained by applying real GNP growth rate forecast by RSQE in November 1985 to the value of 1982 dollar real GNP for 1985 published in July 1988.
*** Estimated by RSQE as of November 1988.

TABLE 2.
"Blue Chip" Forecasts of Percent Change
in Real GNP, 1987–88, as of November 1987†

Forecasters	Low	High	Average	Estimated Error (Bill. '82 $'s)‡
Highest Forecast	–	3.9	3.9	–3
Next 11	2.9	3.3	3.1	27
Next 3 (includes RSQE)	**2.8**	**2.8**	**2.8**	**39**
Next 12	2.3	2.6	2.5	51
Next 12	1.2	2.2	1.6	85
Lowest 10	–2.0	1.1	–0.2	154
Blue Chip Consensus	–2.0	3.9	1.9	74

† Data in first three columns calculated by RSQE from Robert J. Eggert, editor, Blue Chip Economic Indicators, November 10, 1987, page 3.

‡ Based on current RSQE forecast of real GNP at 3993.7 billion 1982 dollars for 1988.

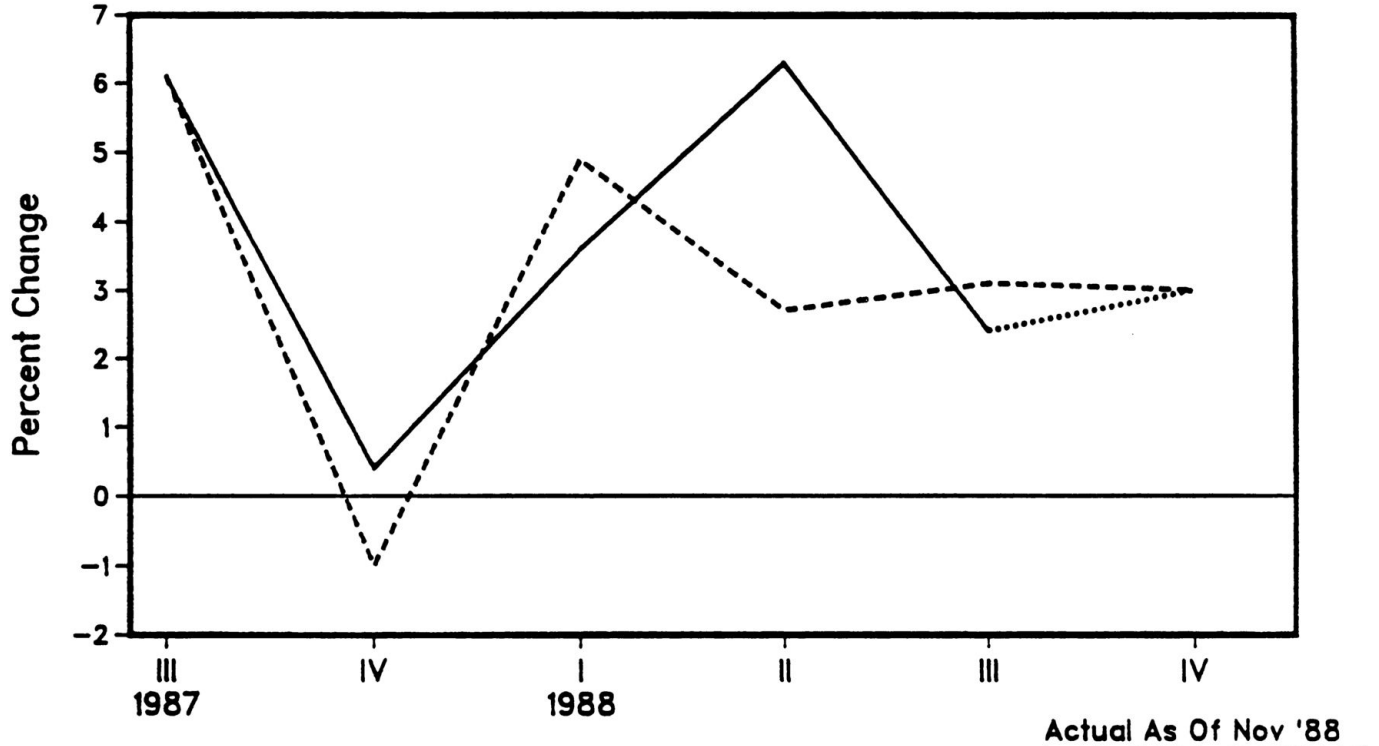
presenting. Consider Panel A of Chart 1 which evaluates the quarterly detail in our forecast of real final sales, i.e., the effective demand for final goods and services. A year ago we were forecasting that final sales growth would drop sharply in the closing quarter of 1987 and then bounce back up in the first quarter of '88. That was the kind of post-crash reaction we were anticipating, and it's exactly what happened. Indeed, our only serious error in forecasting the pattern of real final sales came in the second quarter. Final sales growth continued up sharply in the second quarter, before returning to a more sustainable pace in 1988.3, a quarter later than we had forecast.

While we may have anticipated much of the basic pattern and magnitude of aggregate demand for the half-year following the stock market crash, we certainly missed in dramatic fashion in our forecast of inventory investment, as is shown in Panel B. Inventory stocks accumulated at twice the rate we expected in the last quarter of '87 and at three times the rate we expected in 1988.1. We were much closer in the middle two quarters of the year, and missed the drop now anticipated for the current quarter, much of which is due to the summer drought. Despite the bearishness that dominated the financial and general news media for months after the crash, producers just kept filling the shelves. Part of what we had missed was the existence of a relatively low stock/sales ratio outside of the automobile sector in mid-1987. This might have provided the incentive to take advantage of the stall in demand to build some desired stock on the very presumption that the stall in demand would only be temporary.

When the dynamics of forecast and error in final demand and inventories are combined, the result is Panel C which shows the forecast and actual patterns for growth of real GNP. This provides the perspective of localizing most of our forecast error into 1987.4. By missing on inventory accumulation in the last quarter of '87, we started 1988 from far too low a level of output. And our overpredictions for the second half of '88 — much the result of the unanticipated drought effects — weren't nearly large enough to compensate. In effect, we had a poor forecast of the year-over-year change in real GNP precisely because we followed a big start-up error with a relatively accurate forecast of the subsequent within-year pattern.

Chart 1: Review Of RSQE Forecast For 1988

A. Annual Rate Of Growth Of Real Final Sales



B. Real Inventory Investment

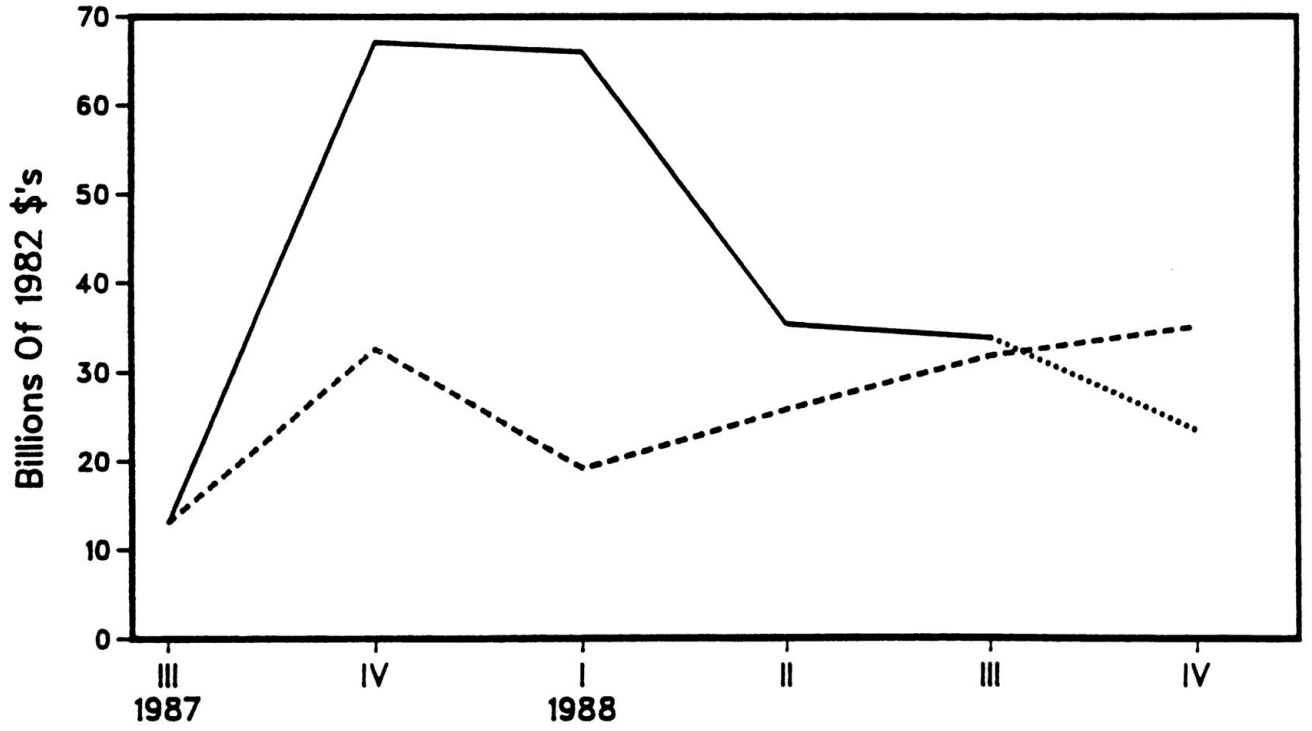
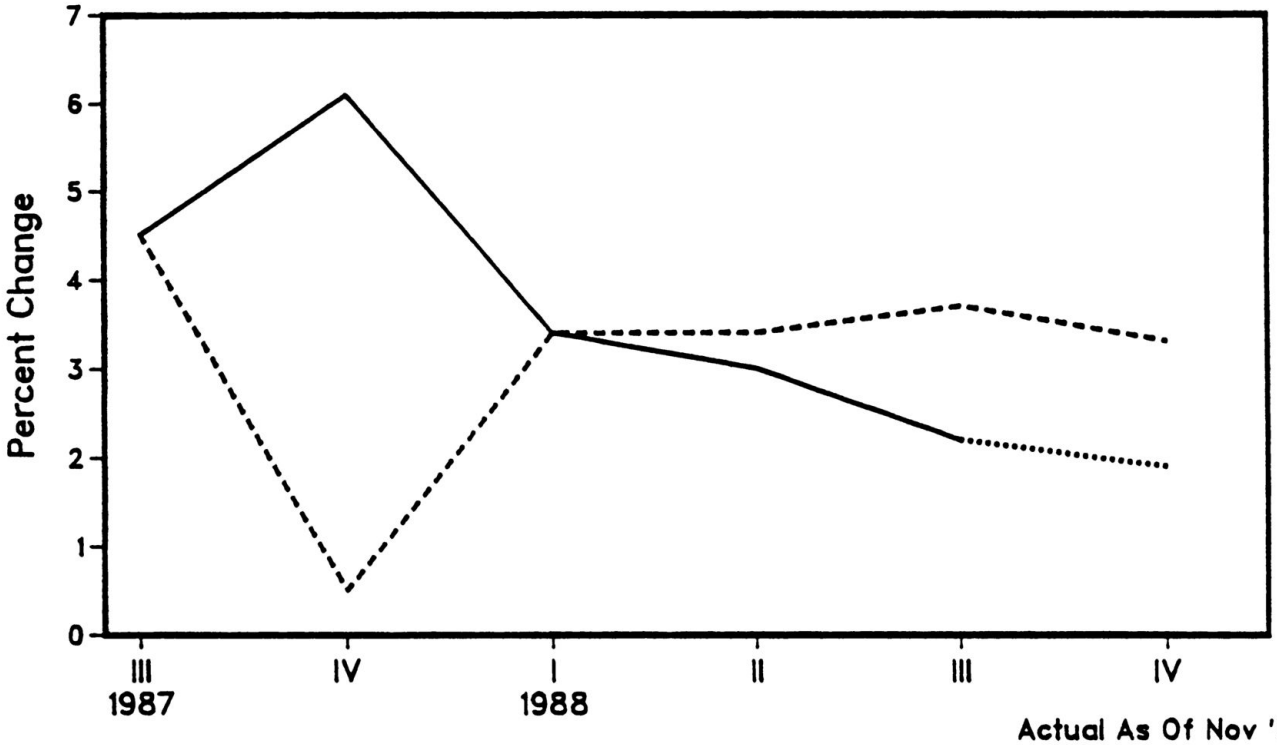


Chart 1: Review Of RSQE Forecast For 1988

C. Annual Rate Of Growth Of Real GNP



Actual As Of Nov '88

RSQE Forecast Nov '87

RSQE Estimate Nov '88

D. Annual Inflation Rate (Consumption Deflator)

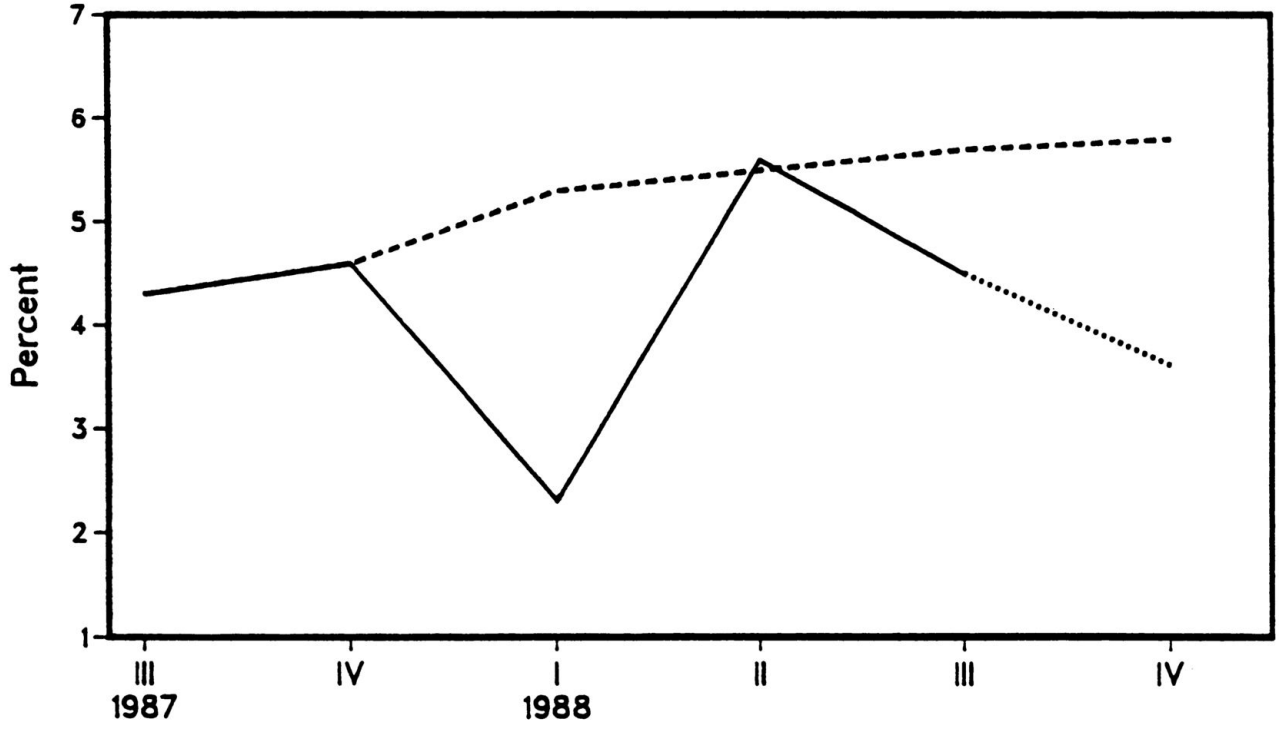
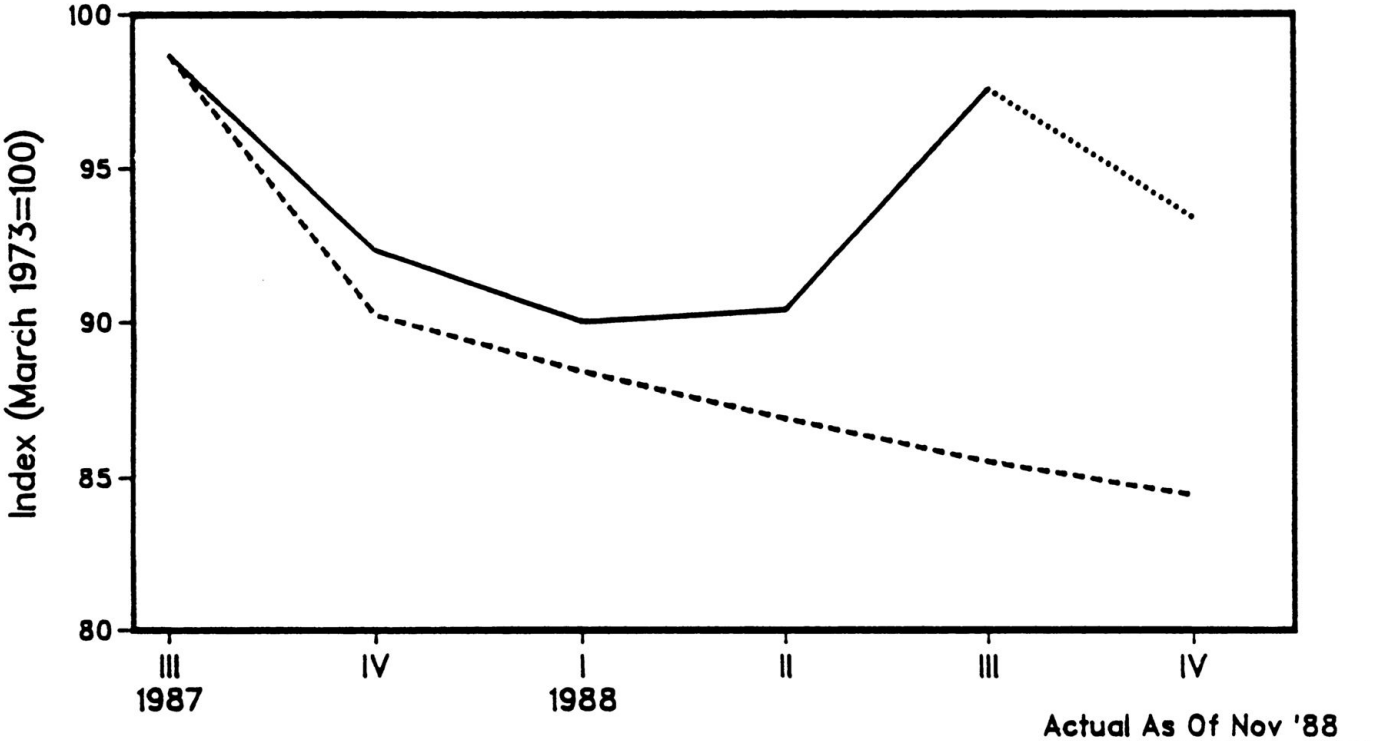
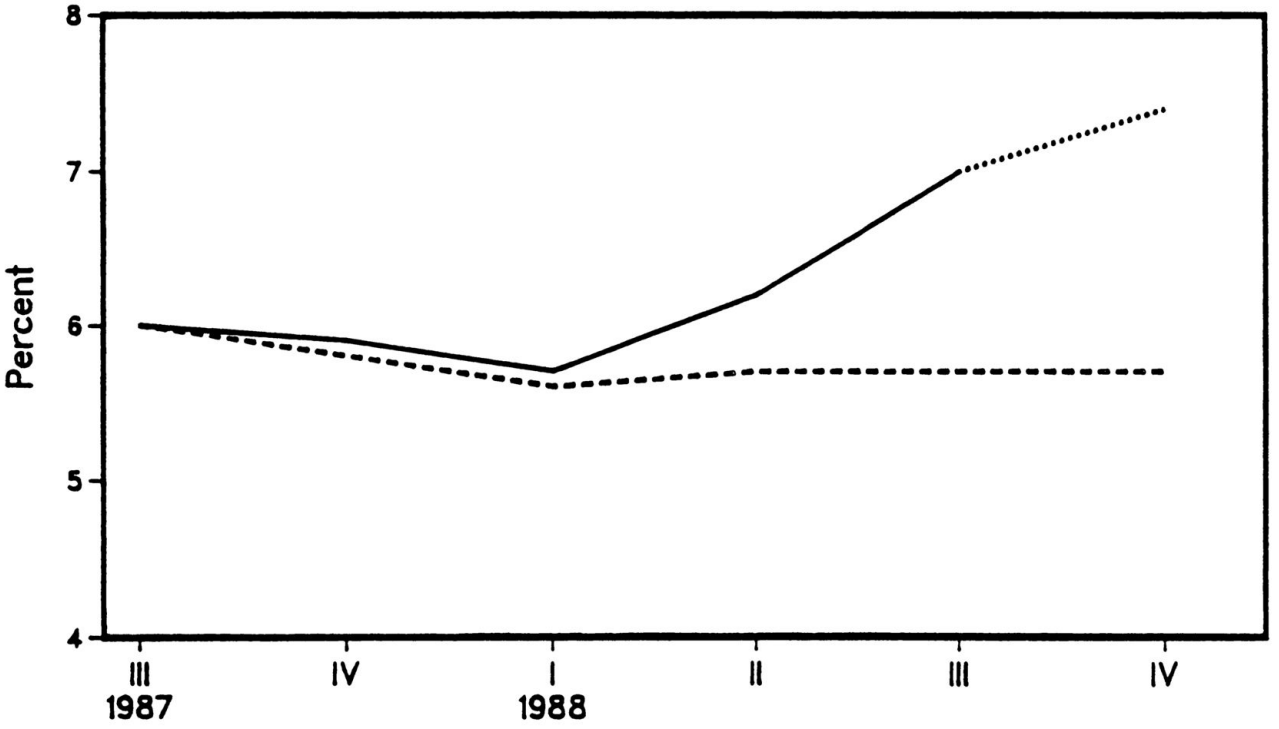


Chart 1: Review Of RSQE Forecast For 1988

E. Exchange Value Of The U.S. Dollar



F. Interest Rate (3 Month T-Bills)



Our inflation forecast is reviewed in Panel D of the chart. In general, inflation seems to have been held more in check than we had expected a year ago — even if, as will be noted below, it appears to be high enough to have generated some concerns at the Federal Reserve Board — and that's the case despite the price-effects of the drought. One source of the error in our inflation forecast is the fact that throughout the year, the U.S. dollar has been stronger then we had expected.

Panel E reviews our accuracy in forecasting a standard index of the dollar's international value. We expected the dollar to weaken over the year, which it did, but we missed the mid-year run-up in value, which ended in late summer. The dollar's climb in the spring and summer followed the Fed's decision to switch to credit tightening in the spring. This appears to have been precipitated by the conclusion at that time that the crash was not being followed by a recession and that, indeed, a possible renewal of inflationary pressures seemed much the more likely problem for the monetary authorities to be concerned about. If right, this implied a switch to tighter credit and higher interest rates. If our major trading partners let our rates rise in relative terms — and the evidence is that they did — this would imply upward pressure on the value of the dollar, an anti-inflationary bonus but a road-block on the road to continuing progress on improving our real trade balance. There is evidence that both the good and the bad effects of a stronger dollar are indeed being realized: the inflation rate hardly seems to be on a tear, while imports do seem to have spurted up a bit most recently.

The final panel of Chart 1 reviews our forecast of a key short term interest rate, that on 3-month treasury bills. Our forecast was right on track until the Fed started to tighten in the spring, and interest rates in general have been above our forecast since then.

In view of all that has already been noted in reviewing last year's forecast, we limit our remarks in connection with the data in Table 3 to a very few. Our underprediction of the level of consumption (and most of its components) is very much the consequence of starting the forecast off at too low a level of output, hence employment, income payments, and consumer purchasing power. We committed serious, though approximately offsetting, errors in forecasting real net exports and investment in producers' durable equipment. We expected a bigger improvement of our real trade balance than has materialized.

TABLE 3.
Review of RSQE Forecast For 1988

	1986–87 Actual	1987–88		
		Predicted	Current Estimate	Forecast Error
CHANGES				
Real GNP and Components (Bill.of '82 $'s)				
GNP	125.3	109.6	146.7	37.1
Personal Consumption Expenditures	65.8	50.0	68.2	18.2
Durable Goods	5.9	7.1	18.3	11.2
Nondurables	11.0	6.9	7.3	0.4
Services	48.8	36.0	42.6	6.6
Producers Durable Equipment	15.8	7.1	45.7	38.6
Nonresidential Construction	-3.8	2.0	-0.4	-2.4
Residential Construction	0.2	-3.8	-5.2	-1.4
Inventory Investment	19.0	-6.5	5.2	11.7
Net Exports	8.6	55.8	31.1	-24.7
Exports	49.4	40.1	72.9	32.8
Imports	40.8	-15.8	41.8	57.6
Government Purchases	19.7	4.9	2.3	-2.6
Prices and Incomes (% Changes)				
Private Nonfarm Sector				
Hourly Compensation	3.8	4.6	4.6	0.0
Unit Labor Cost	3.1	3.3	3.3	0.0
Price Deflator	2.9	3.9	2.7	-1.2
Personal Consumption Deflator	4.5	5.1	4.1	-1.0
Exchange Value of U.S. Dollar	-13.7	-10.5	-4.2	6.3
Real Disposable Income	1.7	1.9	3.6	1.7
Corporate Profits (with IVA and CCA)	3.8	2.5	5.6	3.0
LEVELS IN TERMINAL YEAR				
Civilian Unemployment Rate (%)	6.2	6.0	5.5	-0.5
3-Month Treasury Bill Rate (%)	5.8	5.6	6.6	1.0
Corporate Aaa Rate (%)	9.4	9.9	9.7	-0.2
FHA Mortgage Rate (%)	10.2	10.2	10.4	0.2
Personal Saving Rate (%)	3.2	3.5	4.1	0.6
Auto Sales (Millions of units)	10.3	10.2	10.7	0.5
Import Share (%)	31.1	32.0	29.0	-3.0
Federal Deficit (Bill. $'s, Fiscal Year)	163.5	167.8	149.0	-18.7

Real exports grew by more than we had forecast, but so too did imports, and by an even greater margin. The sharp growth of investment in production equipment, and other forms of producers' durables, including computers and related equipment, is a welcome sign after several years of generally lackluster investment activity of the kind needed to enhance our productive capacity and international competitiveness. Finally, note that the federal deficit is almost $20 billion lower than we had forecast. Our forecast was accurate to within $2 billion on the expenditure side of the budget, but our underprediction of incomes left us with a substantial corresponding underprediction of revenues.

II. The Current State of the Economy

As already noted, important aspects of a dynamic forecast can be thrown permanently off if the forecast begins on the wrong trajectory. Understanding the current state of the economy, and successfully communicating that understanding through the inputs of our econometric model, is thus a critically important first step in generating our economic forecast. Our view of the economy at year-end '88 and the start of 1989 is summarized in Table 4.

We expect real GNP growth at just under 2 percent for the current quarter, and at just over 3 1/2 percent for the first quarter of next year. In a literal sense, this means that the growth retardation evidenced in the 3rd quarter of this year is projected to continue in the 4th quarter, but to reverse itself right after the first of the year. That, however, would substantially misrepresent the difference between these two quarters. A better sense of what we are forecasting can be seen by considering the path of real final sales (excluding sales of agricultural stocks by the Commodity Credit Corporation, CCC) shown in Table 4, namely an annualized growth rate of 2.8 percent in each of 1988.4 and 1989.1. In effect, then, the growth of aggregate demand is seen to have dropped from a 5.5–6 percent pace during the first half of this year to a pace in the 2–3 percent range for the second half of this year and early next year. The GNP gyration in our forecast is basically a reflection of the effects of last summer's drought. We expect the fourth quarter to show the year's biggest drop in real farm inventories — even with CCC sales continuing at a relatively high level — which produces an artificially low growth of GNP for this quarter. The lower

TABLE 4.
RSQE Forecast: The Calendar Year and Second Half, 1988
(Billions of 1982 $'s, SAAR, Unless Otherwise Indicated)

	1988				1989	Calendar Year	
	I	II	III	IV	I	1987	1988
Real GNP and Components							
Real GNP	3956.1	3985.2	4007.3	4026.3	4061.9	3847.0	3993.7
(% Change, SAAR)	(3.4)	(3.0)	(2.2)	(1.9)	(3.6)	(3.4)	(3.8)
Real Final Sales, Excluding CCC	3909.4	3966.7	3987.1	4015.0	4042.8	3816.5	3969.6
(% Change, SAAR)	(5.5)	(6.0)	(2.1)	(2.8)	(2.8)	(3.2)	(4.0)
Consumption	2559.8	2579.0	2601.3	2616.2	2628.4	2521.0	2589.1
(% Change, SAAR)	(4.5)	(3.0)	(3.5)	(2.3)	(1.9)	(2.7)	(2.7)
Business Fixed Investment	473.4	490.2	495.7	502.5	508.7	445.1	490.5
Residential Construction	189.5	189.6	190.2	190.6	191.4	195.2	190.0
Change in Nonfarm Bus. Inventories	51.9	30.1	34.0	30.3	29.2	36.9	36.6
Change in Farm Inventories	14.1	5.3	-0.3	-7.0	-2.0	-2.5	3.0
Net Exports	-109.0	-92.6	-94.9	-94.6	-89.9	-128.9	-97.8
Government Purchases, Non CCC	795.7	800.6	794.7	800.3	804.2	784.1	797.8
Government CCC Purchases	-19.3	-16.8	-13.6	-12.0	-8.0	-3.9	-15.4
GNP Deflator (1982=100)	119.4	121.0	122.3	123.4	124.6	117.7	121.5
(% Change, SAAR)	(1.7)	(5.5)	(4.4)	(3.8)	(3.8)	(3.3)	(3.3)
Current Dollar GNP (Bills.of $'s)	4724.5	4823.8	4899.5	4968.8	5060.4	4526.7	4854.2
Addenda							
Civilian Unemployment Rate (%)	5.7	5.5	5.5	5.5	5.5	6.2	5.5
3-Month Treasury Bill Rate (%)	5.7	6.2	7.0	7.4	7.5	5.8	6.6
Aaa Corporate Rate (%)	9.6	9.8	10.0	9.5	9.4	9.4	9.7
Conventional Mortgage Rate (%)	10.1	10.4	10.5	10.2	10.2	10.2	10.3
Exchange Value of the Dollar (% Change, SAAR)	-9.4	1.7	35.6	-16.0	-3.4	-13.7	-4.2
Automobile Sales (Mills.of Units)	10.8	10.6	10.7	10.6	10.5	10.3	10.7
Personal Saving Rate (%)	4.4	3.7	4.0	4.3	4.4	3.2	4.1
Federal Deficit (Bills.of $'s)	155.1	133.3	147.4	157.9	140.9	163.5*	149.1*

* Fiscal years

pace of liquidation of farm inventories expected for 1989.1 then produces the reverse, an artificially high growth rate at the start of next year.

The continued and steady growth of final demand which we are forecasting for this quarter and next is paced by:

- continued strength in business capital purchases, up at an annual rate of 5 1/3 percent;
- a modest strengthening of residential construction activity in response to the recent drop in mortgage rates; and
- a renewed improvement in our real net export position late this year and early next year, following the stall which developed along with the sharp turnaround in interest rates and the value of the dollar in the spring and summer.

Note that consumer purchasing activity is just following along, not leading the expansion of demand over the coming half year — car sales are forecast to be edging down a bit, and the personal saving rate moves slightly upward. The overall growth of economic activity which this implies holds the unemployment rate at just about 5 1/2 percent through the first quarter of next year.

Clearly, at this stage of our economic expansion, with aggregate unemployment near 5 1/2 percent and capacity utilization at about 84 percent, we would hardly look for aggregate demand growth to continue at a rate above three percent. The 2.8 percent turn-of-the-year demand growth in our forecast is probably close to the peak rate that our capacity growth can service, especially if we expect it to be accompanied by improvements in real net exports. A sustained attempt to exceed such a growth rate would surely produce increasing inflationary pressures.

Indeed, we expect that Alan Greenspan and his colleagues at the Fed are going to be concerned about precisely this point early next year. Strongly enough concerned, in fact, that we are anticipating another notch of monetary policy restraint before the end of the first quarter. The form that takes in our Control Forecast is a 50 basis point increase in the discount rate to 7 percent effective February 15th. It is

that which brings the treasury bill rate to a 7.5 percent average for 1989.1, and stalls the decline in mortgage rates which is currently under way.

This projected shift to a somewhat tighter monetary policy begins to impact the whole structure of interest rates as soon as it occurs, but it has no effect on any of the real economy magnitudes shown in Table 4. It is precisely the continued strength of aggregate demand, as shown in the table, which induces the tighter monetary policy. As we envision it, the policy shift is standard Fed behavior: the economy is strong, it's near capacity, the dollar is sliding — take a preventive, anti-inflationary step.

We further expect that this will be a go-it-alone tightening of monetary policy; that our interest rates will not only be higher than otherwise, but higher relative to corresponding interest rates abroad. We expect that our major trading partners will desire neither to tighten credit conditions in their own economies, nor to prevent the slower rate of appreciation of their own currencies that will result from letting their interest rates slip relative to ours. Foreign desires to keep exporting, and the Fed's desire to prevent inflation in the U.S., are both served by higher interest rates here not matched by higher foreign rates. It is important to stress that we are assuming a modest, marginal shift toward tighter credit in the U.S. starting early next year. This is not a repeat of spring '88, and does not by itself imply anything like a spike in interest rates. The forecast path of interest rates beyond 89.1 will depend on how the rest of the economy unfolds in the context of a 7 percent discount rate and all the other important input assumptions, to which we now turn.

III. Inputs: Fiscal Policy

The Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 set revised deficit targets for fiscal years 1988 through 1993 and amended the sequester procedures of the Balanced Budget Act (Gramm-Rudman-Hollings) of 1985. The deficit targets are $136 billion for fiscal 1989 and $100 billion for fiscal '90. The Office of Management and Budget has estimated that the fiscal '89 budget deficit will be just under $146 billion, which falls within the $10 billion margin of error allowed by the GRH Reaffirmation Act. Hence, no cuts are required for the current fiscal year.

For fiscal 1990, our federal budget projections include budget action to reduce the deficit by $25 billion. Without such action, a business-as-usual budget (allowing for inflation and program participation changes) would, in the context of our forecast, produce a $132 billion (NIPA basis) deficit. The deficit reduction in our control forecast is accomplished with a combination of spending reductions totaling $17.5 billion for fiscal '90 and a $10 billion increase in personal taxes starting in January, 1990. The expenditure reductions include a $1.6 billion reduction in nondefense purchases, a $5.5 billion reduction in subsidies, an $8.1 billion reduction in Grants-in-Aid to state and local governments, and a $2.3 billion reduction in federal government transfer payments. Note that these are all reductions relative to the increases that would otherwise occur "naturally."

We are assuming that the personal tax increase can be accomplished through changes that can fairly be characterized as technical corrections to the Tax Reform Act of 1986. The most substantial change involves amending the technical error which allows families with taxable incomes above $200,000 (or individuals with taxable incomes above $105,000) to pay taxes at a marginal rate of 28 percent while those with lower incomes of $75,000-$200,000 ($45,000-$105,000 for individuals) pay at the higher 33 percent marginal rate. This change raises taxes compared to current law only for families with incomes in excess of $200,000 (and individuals with incomes in excess of $105,000); and the Congressional Budget Office estimates that it would yield $6 billion in additional revenue in calendar 1990.

Our budget assumptions on expenditures — including the $17.5 billion "cut" for FY '90 — are summarized in Table 5. Defense spending, which increased by $15 billion (5.4 percent) in fiscal '87 but by only $8 billion (2.6 percent) in fiscal '88, is projected to increase by $7 billion (2.3 percent) in fiscal '89 and by $12 billion (4 percent) in fiscal '90.

Nondefense purchases, excluding the Commodity Credit Corporation (CCC) inventory change, increased by $3 1/2 billion in fiscal year 1987 and by $10 billion (11.7 percent) in fiscal '88. We are projecting an increase of $6 billion (6.1 percent) in fiscal '89 and $4 billion (3.8 percent) in fiscal '90. The 1990 path holds spending flat at the level of the final quarter of fiscal 1989 except for a projected 3 percent

TABLE 5.
Federal Government Expenditures in the National Income and Product Accounts
(billions of dollars)

	Actual	RSQE Projections	
	Fiscal 1988[1]	Fiscal 1989[2]	Fiscal 1990[2]
Federal Government Expenditures	1113.2	1163.9	1222.2
(% Change)	(5.2)	(4.6)	(5.0)
Purchases of Goods & Services	381.2	401.9	428.2
National Defense	297.6	304.6	316.9
Nondefense	83.6	97.3	111.3
Commodity Credit Corporation Inventory Change	-13.8	-6.0	4.0
Other Nondefense	97.4	103.3	107.3
Transfer Payments	433.7	458.7	490.8
Unemployment Benefits	13.6	14.3	16.0
Grants-in-Aid to State and Local Governments	108.1	113.6	112.1
Net Interest Paid	151.1	159.2	168.7
Subsidies Less Current Surplus of Government Enterprises	39.2[3]	30.4	22.5
Federal Receipts	964.2[3]	1022.8	1111.2
Surplus (+) or Deficit (-)	-149.0[3]	-141.0	-111.1

[1]Data for fiscal 1988 are from the Survey of Current Business, October 1988.

[2]RSQE projections and Control Forecast for fiscal years 1989 and 1990.

[3]The subsidies less current surplus of government enterprises, receipts, and deficit components for 1987.3 are RSQE projections.

pay increase for civilian government workers and the projected costs of additional government employment during the 1990 census effort.

The 1988 drought will continue to affect federal expenditures through CCC activity, price support programs, and disaster relief. CCC inventories, which declined by $13.8 billion during fiscal 1988, are projected to decline by $6 billion during fiscal '89, and then to increase by $4 billion in fiscal '90. While these swings in CCC inventories result in abnormal movements in total government purchases, they do not affect GNP because they are offset by opposite changes in farm inventories (relative to levels determined by farm production and consumption). Subsidies less the current surplus of government enterprises, which reflect drought relief payments during the current quarter, are projected to total $30.4 billion in fiscal '89 and $22.5 billion in fiscal '90.

Federal transfer payments to persons, which increased by $23 billion in fiscal 1988, are projected to increase by $25 billion in fiscal '89 and by $32 billion in fiscal '90. These estimates include outlays for the early stages of catastrophic health insurance. The fiscal 1990 projection also includes $3 billion in program cuts in calendar 1990. Grants-in-Aid to state and local governments, which increased by $5 billion in fiscal '88, are projected to increase by $5 1/2 billion in fiscal '89, but to decline by $1 1/2 billion in fiscal '90 as a result of budget cutting efforts mandated by the revised deficit reduction targets.

Taken together, our fiscal assumptions hold total federal expenditures to increases of 4.6 percent and 5 percent for fiscal years '89 and '90, respectively — about "flexible freeze" proportions. The bottom line for the federal budget implied by our forecast — including higher taxes and expenditure restraint — is a federal deficit which declines from an estimated $149 billion in fiscal '88 to $141 billion in fiscal '89 and $111 billion in fiscal '90.

We are projecting that state and local government purchases will increase at a 7.5 percent annual rate during fiscal '89, and that, on a business-as-usual path of federal grants, state and local government purchases would increase at a 7 percent annual rate in fiscal '90. However, our budget reduction

assumptions reduce federal grants by $8 billion. We assume that state and local governments will protect their own budgets through a combination of lower purchases and transfer payments during fiscal '90.

IV. Monetary Policy, The International Scene, and other Inputs

The Fed's concern in recent months has centered on the risk of inflationary pressures in the U.S. economy resulting from rising levels of capacity utilization and continuing low levels of unemployment. As a result, the Fed began to push up short term interest rates in March and raised the discount rate from 6 to 6.5 percent in early August. As already indicated, we anticipate that the Fed's continuing concerns about inflationary pressures will result in another increase in the discount rate to 7 percent in the middle of the first quarter of 1989.

The rate of growth of the monetary base declined from 8.6 percent at annual rate during the first quarter of 1988 to 6.3 percent at annual rate during the third quarter. We expect that the Fed will allow the monetary base to grow at a 5 percent annual rate throughout the forecast horizon.

We further project that the Fed will act to offset the fiscal tightening that is projected to begin in the fourth quarter of 1989 by bringing the discount rate back down to 6.5 percent. As in the earlier projected increase in the discount rate, we are again assuming that the U.S. will act alone in nudging interest rates back down at the start of fiscal year 1990. Consequently, by mid-1990, U.S. short term interest rates will have depreciated relative to foreign rates, thus returning approximately to their current relative position.

We are expecting the foreign-currency prices of our nonoil imports to fall during the current quarter in response to the recent decline in the value of the dollar but to be rising at a 4 percent annual rate by late 1989. With the trade weighted value of the dollar forecast to decline during the next two years, the dollar price of nonoil imports will be contributing an upward push to U.S. inflation rates.

Most OPEC members have been producing more oil than is specified in their quotas. The current quotas, totaling 17.5 million barrels per day, were set up in December 1986 with a price target of $18 per

barrel. Recent production has exceeded 20 million barrels per day. OPEC's overproduction, combined with high levels of non OPEC oil production, has resulted in a world crude oil glut. Consequently, oil prices, which averaged $16 to $17 per barrel during the first half of 1988, are now in the $13 to $14 per barrel range. Failure of OPEC members to reach a new agreement to limit production could result in oil prices falling even further.

The October OPEC strategy session in Madrid did not produce a new production cutting accord, but the oil ministers there did at least pursue the general outline of a plan to reduce production and Iran and Iraq appeared to adopt a more conciliatory attitude toward each other. We expect continuing efforts by OPEC members to resolve pricing and output strategy differences and, hence, we are assuming that oil prices will firm in the $15 per barrel range in early 1989. With a somewhat higher, but more sustainable OPEC quota level, oil prices are projected to rise at 2–3 percent annual rates during most of 1989 and then to rise at a 4 percent annual rate during 1990.

The U.S. suffered its most severe drought in half a century this past summer. The corn and soybean crops were severely affected and the spring wheat crop was reduced as well. Year-end stocks of these crops are expected to be severely depleted. A record 78.4 million acres of farmland were removed from production in 1988 under government set-aside, Conservation Reserve, and other land idling programs. Land idling programs are expected to be substantially reduced in 1989 to allow farmers to plant increased acreage. Even with a substantial increase in acres planted and assuming normal weather conditions, year-end stocks are expected to remain at very low levels at the end of the 1989 harvest year.

Farm prices, as measured by the implicit price deflator for gross farm product, increased at nearly a 50 percent annual rate from the first to the third quarter of 1988. We expect farm prices to remain level during the current quarter, to decline a bit in the first quarter of 1989, and then to rebound to current levels during the second and third quarters of 1989 largely due to higher meat prices reflecting the higher slaughter rates during the summer drought. Thereafter, we expect farm prices to be increasing at a 4 percent annual rate.

We now turn to the forecast for 1989–90 which results from the combination of our input assumptions, recent economic conditions, and our econometric model.

V. Overview of the Control Forecast for 1989–90

Our Control Forecast for 1989–90 is summarized on a calendar year basis in Charts 2 and 3. The first panel of Chart 2 indicates that 1989 and 1990 are forecast to be years seven and eight of the post-1982 economic expansion. Compared to the 3.8 percent growth of real GNP now estimated for this year, however, we are forecasting considerably slower growth for the next two years: 2.9 percent for next year, and only 2.4 percent for 1990. The latter, if realized, would mark 1990 as the slowest growth year of the entire expansion. As shown in the second panel of the chart, output growth of a little under 3 percent holds the unemployment rate steady; while output growth of a little under 2 1/2 percent is accompanied by a rising unemployment rate, though the extent of the rise in unemployment forecast for calendar 1990 is minimal.

Along with the continued economic expansion, we are anticipating somewhat higher rates of inflation over the next two years. As measured by the implicit price deflator for consumer goods and services, we are forecasting inflation rates of 4.8 and 5.5 percent for calendar '89 and '90, respectively, up from 4.1 percent for this year. With three straight years of unemployment at just about 5 1/2 percent, a 1988 drought affecting food prices well into 1989, oil prices assumed to begin rising again, and the prices of most imported consumer goods rising at above average rates as the U.S. dollar continues to depreciate, the step-up in the rates of increase of average consumer prices forecast for 1989 and '90 should come as no surprise. We put off just until the next section any discussion of whether our forecast should be interpreted to mean that an "inflation problem" is on the horizon.

Continuing with the overview in Chart 2, we see the interest rate pattern dominated by our monetary policy assumptions. The treasury bill rate is forecast to average 7.1 percent in 1989, but to be down to an average of 6.4 percent the year after. The growth of real disposable income is forecast to be down to 2.3 percent next year, compared with 3.6 percent estimated for this year; and to be down to only

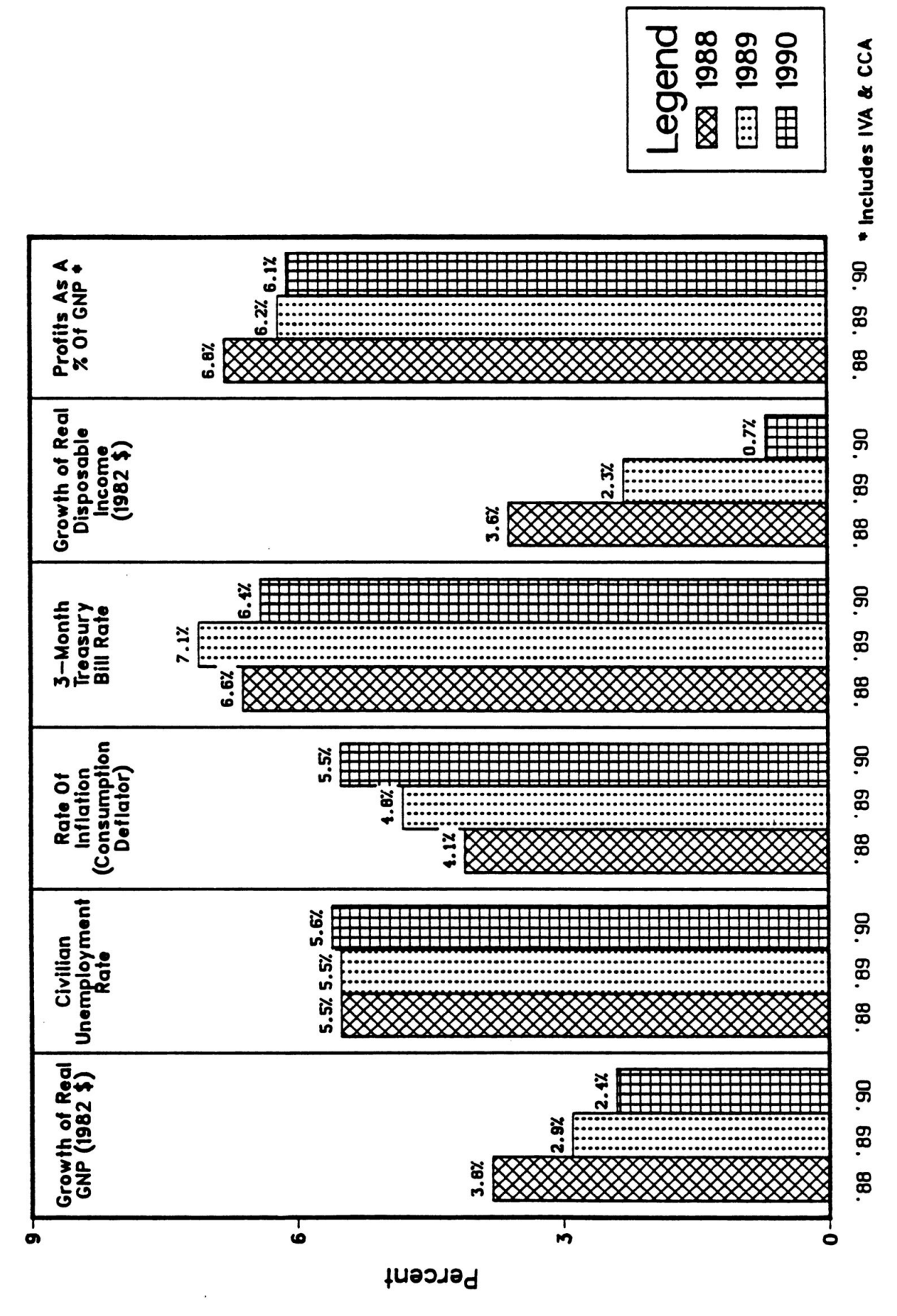
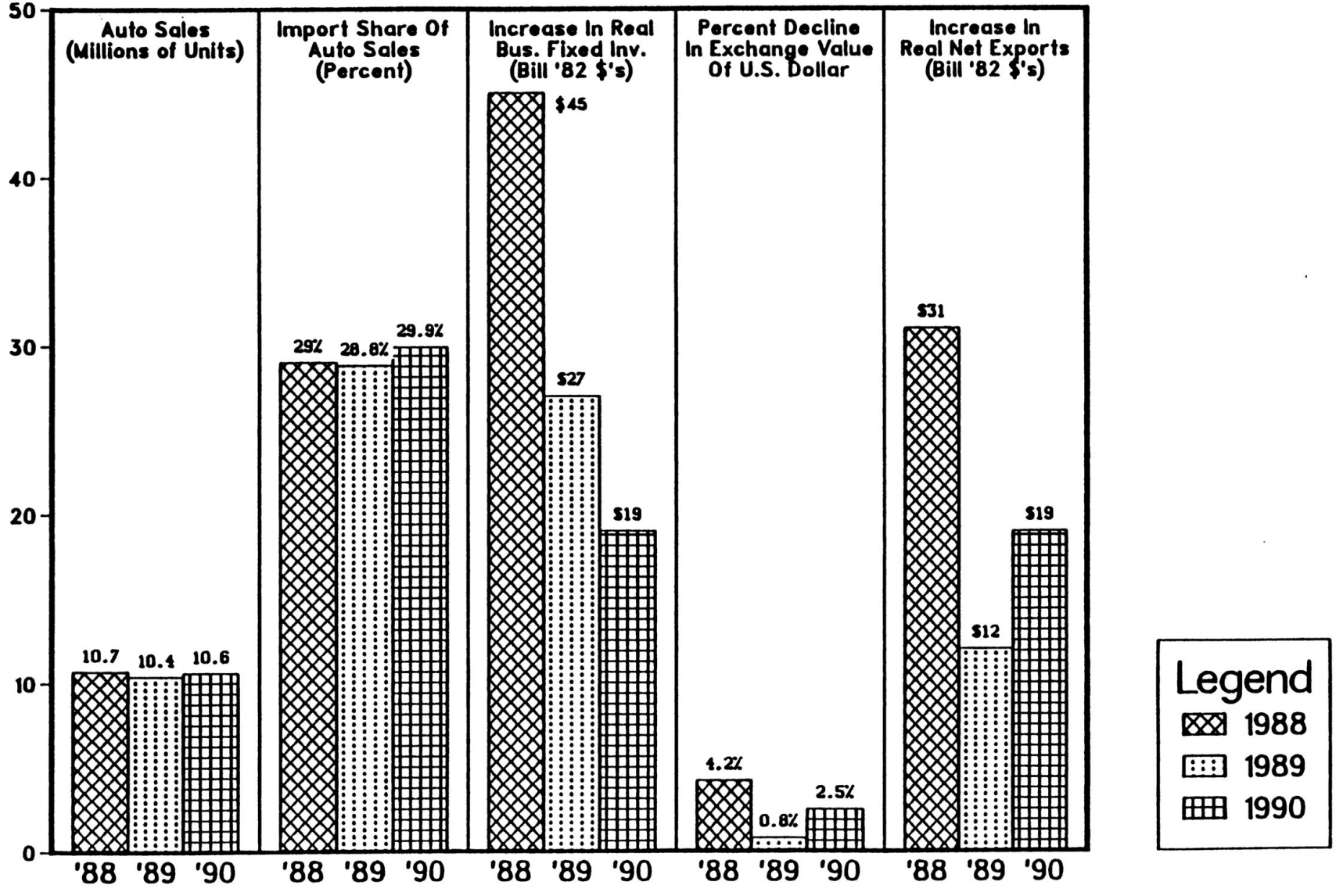

Chart 2
RSQE Control Forecast for 1989–90: Overview
Growth of Real GNP (1982 $)
Civilian Unemployment Rate
Rate Of Inflation (Consumption Deflator)
3-Month Treasury Bill Rate
Growth of Real Disposable Income (1982 $)
Profits As A % Of GNP *
Percent
9
6
3
0
3.8%
2.9%
2.4%
5.5% 5.5% 5.6%
5.5%
4.8%
4.1%
7.1%
6.6%
6.4%
3.6%
2.3%
0.7%
6.8%
6.2%
6.1%
'88 '89 '90
Legend
1988
1989
1990
* Includes IVA & CCA

Chart 3
RSQE Control Forecast for 1989–90: Overview



7/10 of one percent for 1990, due to the combination of a slower growth economy and the higher personal taxes which are part of the assumed fiscal '90 budget package. The final panel of Chart 2 shows corporate profits (including inventory valuation and capital consumption adjustments) at a bit over 6 percent of GNP for each of the next two years.

Additional detail regarding some of the more important output-related variables in the Control Forecast is shown in Chart 3. Auto sales are forecast to slip from 10.7 million units this year to 10.4 million units next year, reflecting, in part, the sensitivity of auto sales to higher interest rates. Car sales edge back up to 10.6 million units for calendar 1990 as lower interest rates take hold. The import share of car sales is forecast to stay at about 29 percent again for 1989, but to edge up to nearly 30 percent for 1990 as the price of foreign relative to domestic cars begins to stabilize.

The center panel of Chart 3 shows continued increases in real business capital spending over the next two years, but by far smaller amounts than during this year which witnessed an especially big increase in business computers and related equipment. It should be noted that the huge jump in capital purchases this year brought real business fixed investment up to 12.3 percent of real GNP from 11.6 percent in each of 1986 and 1987. The continued investment increases shown in Chart 3 raise the investment/GNP ratio to 12.6 percent next year and 12 3/4 percent the year after — ratios which are quite high by historical standards. Finally, although the U.S. dollar is forecast to continue to depreciate in 1989, the year-over-year change is small as the higher level of interest rates forecast for the first half of next year slows down the rate of dollar depreciation. A higher rate of depreciation is posted for calendar 1990 as the Fed's assumed response to fiscal tightening permits interest rates to move down. Consistent with this pattern of dollar depreciation, we forecast a far smaller improvement in real net exports in 1989 than occurred this year, but a larger gain in 1990 than in 1989.

The overview that is based on calendar year data raises several important questions. Among them: is the expansion stalling out by 1990, is inflation behaving in such a way as to represent an increasingly serious problem, are we getting close to an international balance, and so on? These and other matters are better addressed by considering the quarterly path of the Control Forecast, to which we now turn.

VI. The Quarterly Path in the Control Forecast for 1989–90

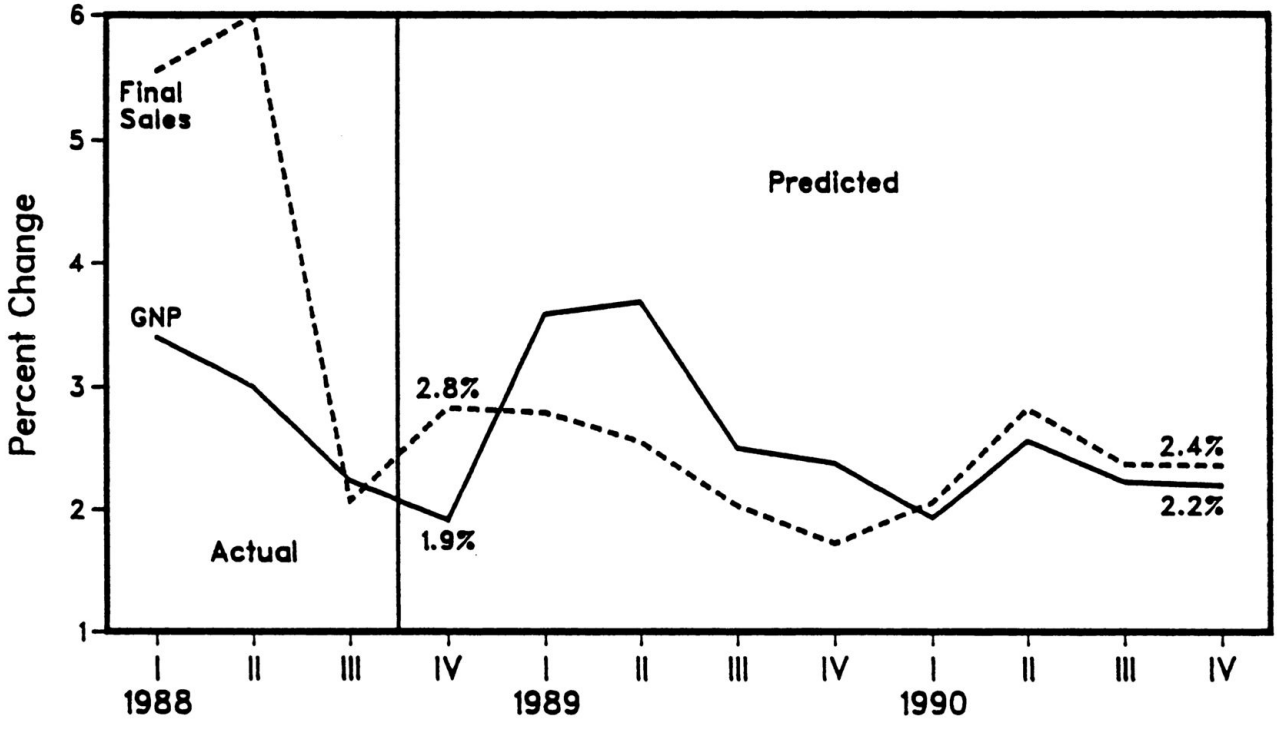
A number of the more important dynamic aspects of the Control Forecast are summarized in the various panels of Chart 4. We begin with Panel A which plots the forecast paths for the growth rates of real GNP and real Final Sales (excluding CCC activity). In our earlier discussion of the current state of the economy, we forecast near-term growth of aggregate demand at an annual rate of 2.8 percent, well below the 5.5–6 percent rates of the first half of this year. It is clear from the chart that we are forecasting another small step downward, with aggregate demand growth generally in the range of 2 to 2 1/2 percent after the first quarter of next year and averaging 2 1/4 percent over the seven quarter period of our post-89.1 forecast horizon. Once the gyrations due to the drought and its inventory implications have worked themselves out, it becomes clear that real GNP growth is also forecast to move into the 2 to 2 1/2 percent range.

There is no paucity of ways to evaluate the desirability of any contemplated path of output growth, including that shown in Chart 4A. A way that comes quickly to mind, of course, is to ask "What does it mean for unemployment and inflation?" Chart 4B deals precisely with that question. For most of the forecast horizon the civilian unemployment rate remains in the narrow range of 5.4–5.5 percent. By the second half of 1990, however, the unemployment rate begins to drift upward in response to output growth pegged at less than 2 1/2 percent. By the closing quarter of 1990, we have unemployment averaging 5.7 percent.

Corresponding to this stable-to-slightly-up path of unemployment, is a forecast inflation path which goes from about 3 1/2 percent currently, to a little over 4 percent by early 1990, and then appears to top out at just under 4.4 percent for the balance of 1990. There is nothing peculiar in the internals of the forecast which imply that the inflation behavior shown for the final three quarters of 1990 should be regarded as a temporary lull. Inflation is <u>not</u> forecast to be accelerating during 1990. Indeed, the combination of a bit of upward drift in unemployment, and a rate of capacity utilization in manufacturing which we forecast to be stable at just over 85 percent throughout 1990 (see the computer print-out tables attached), imply that <u>no more</u> than the late '90 inflation rate would carry into early 1991.

Chart 4: RSQE Control Forecast For 1989–90

A. Annual Rate of Growth of Real GNP & Real Final Sales (Excluding CCC)



B. Civilian Unemployment Rate And Inflation Rate (Private Nonfarm Sector)

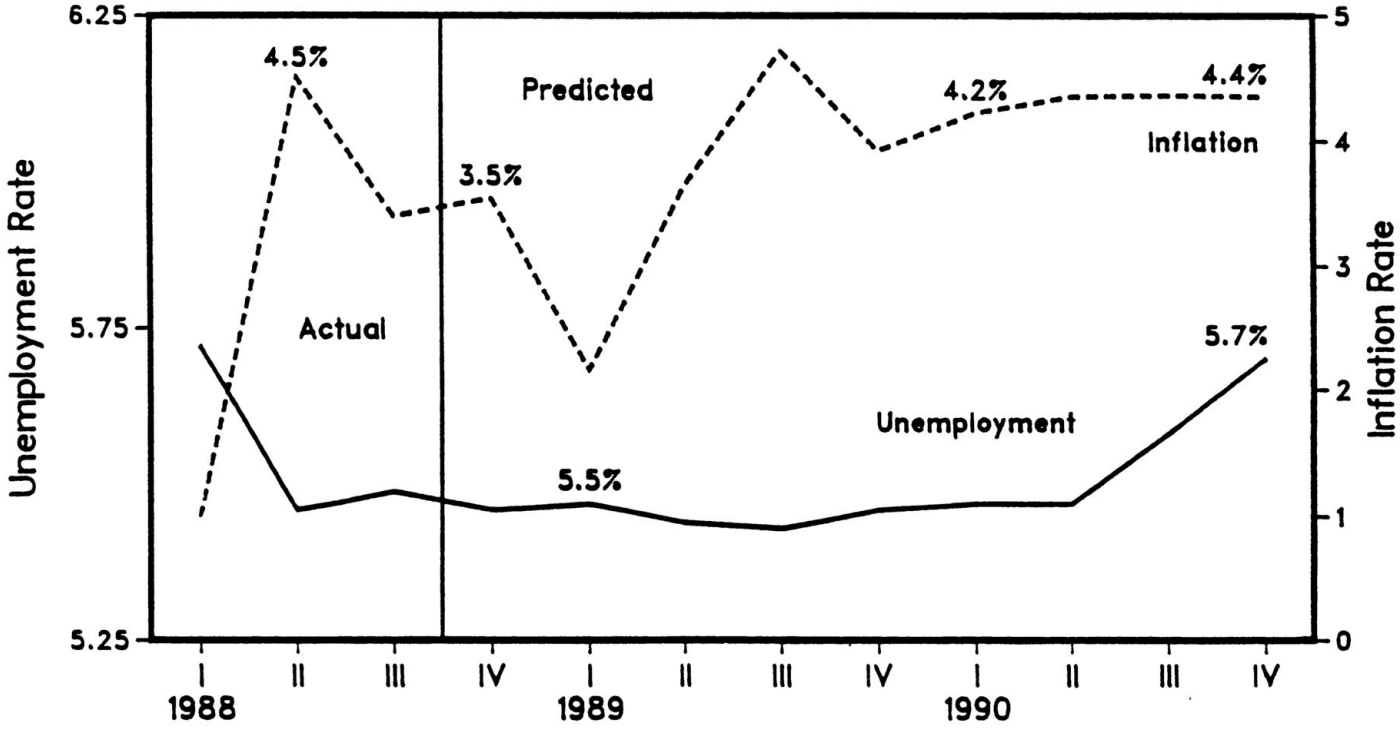
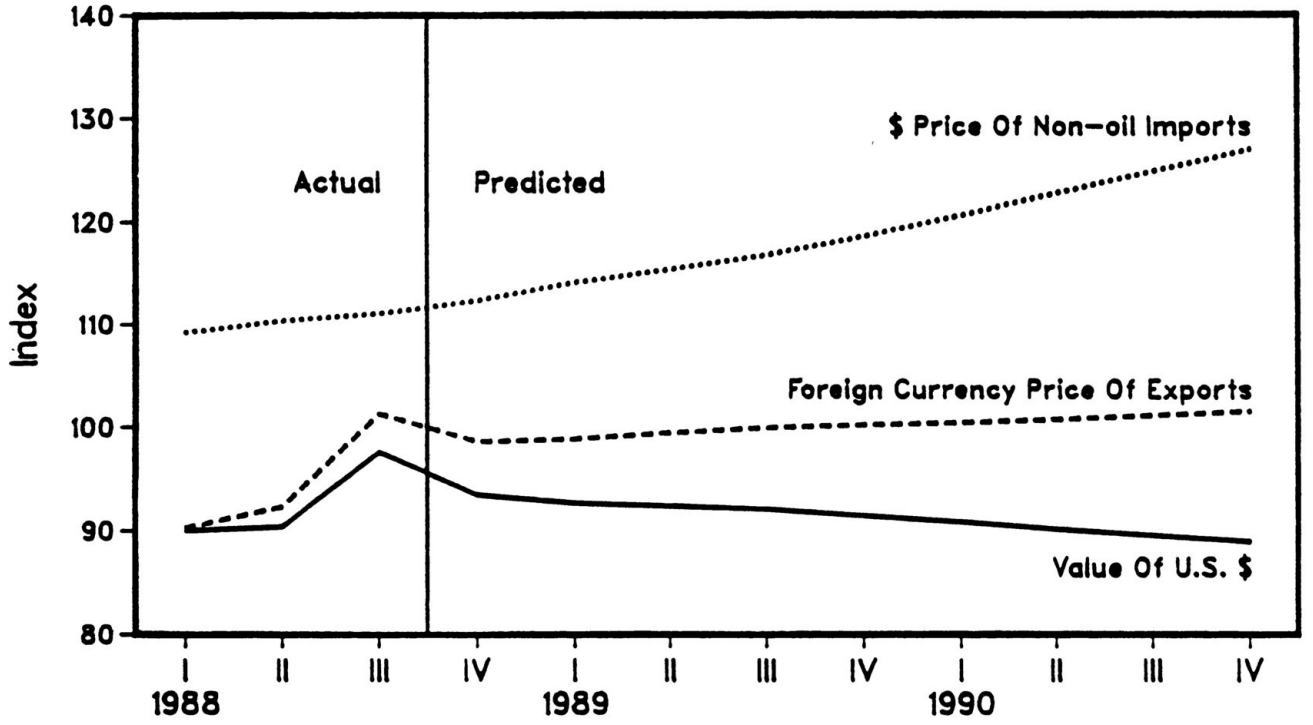


Chart 4: RSQE Control Forecast For 1989–90

C. Foreign Sector: Prices



D. Foreign Sector: Trade Flows

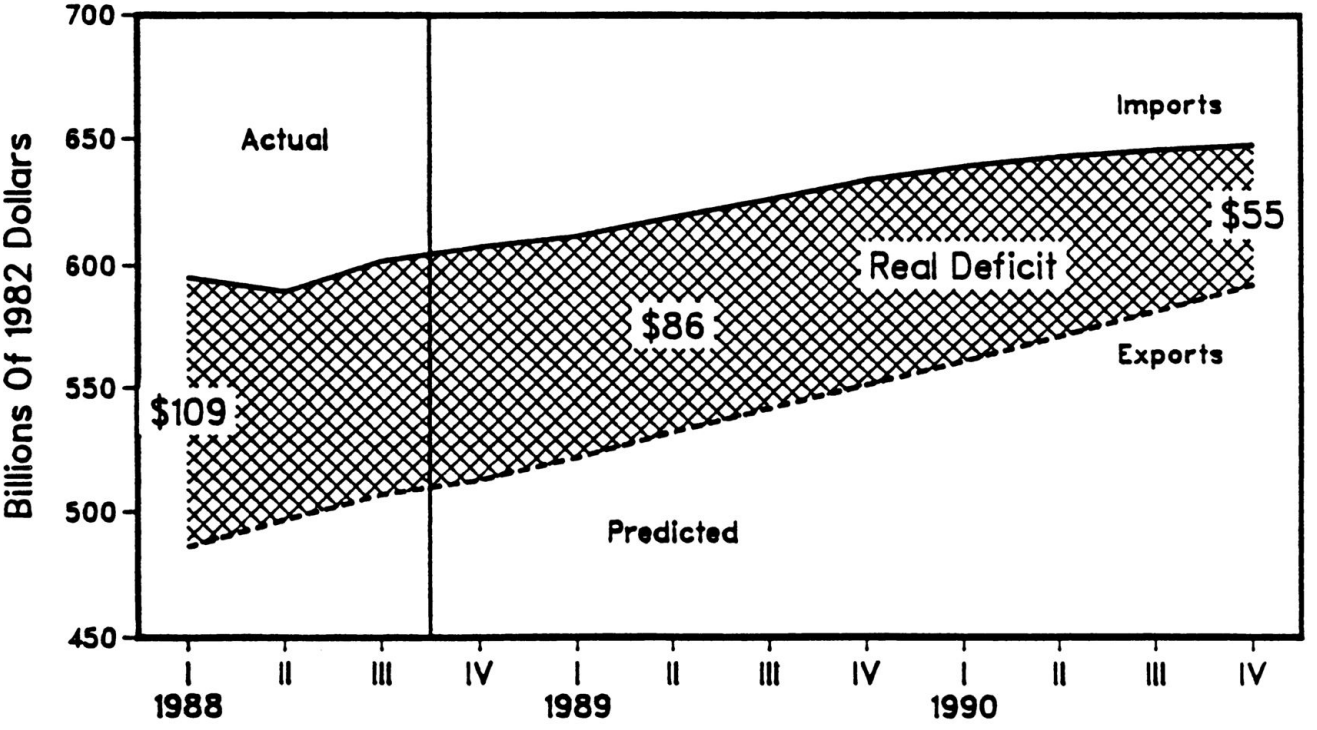
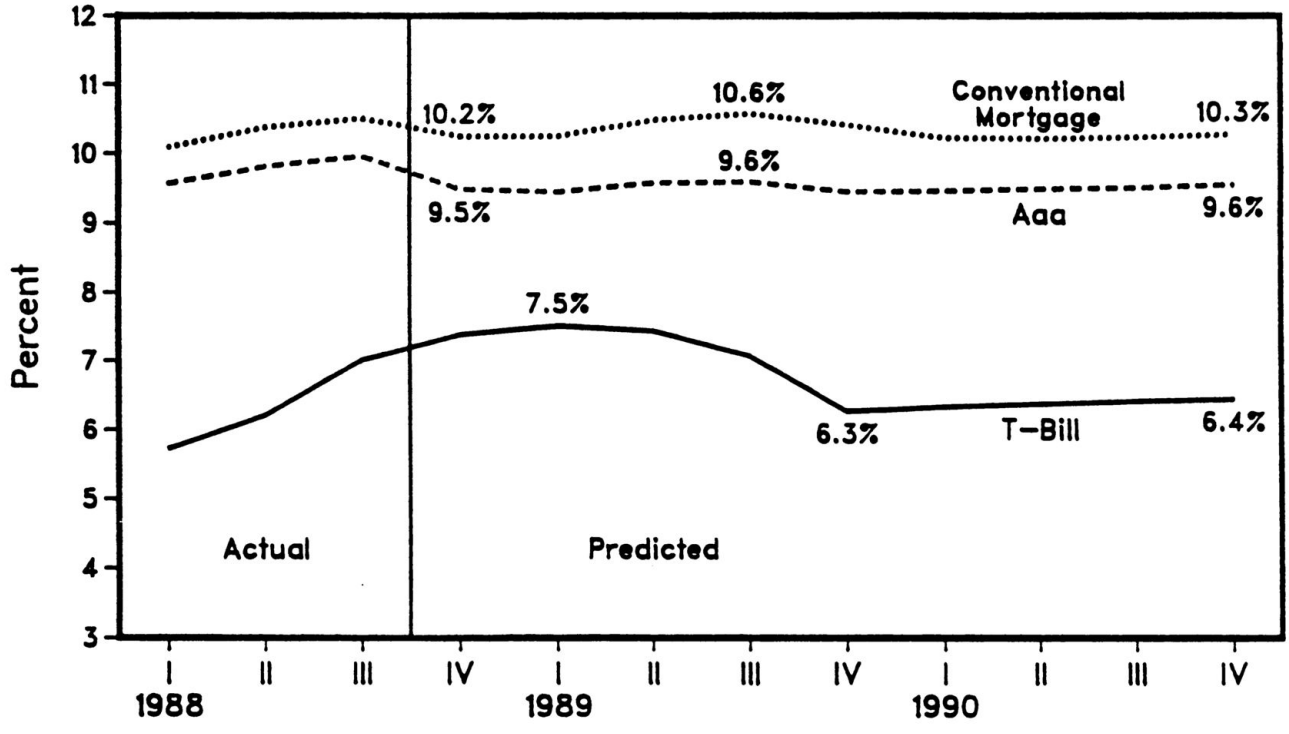
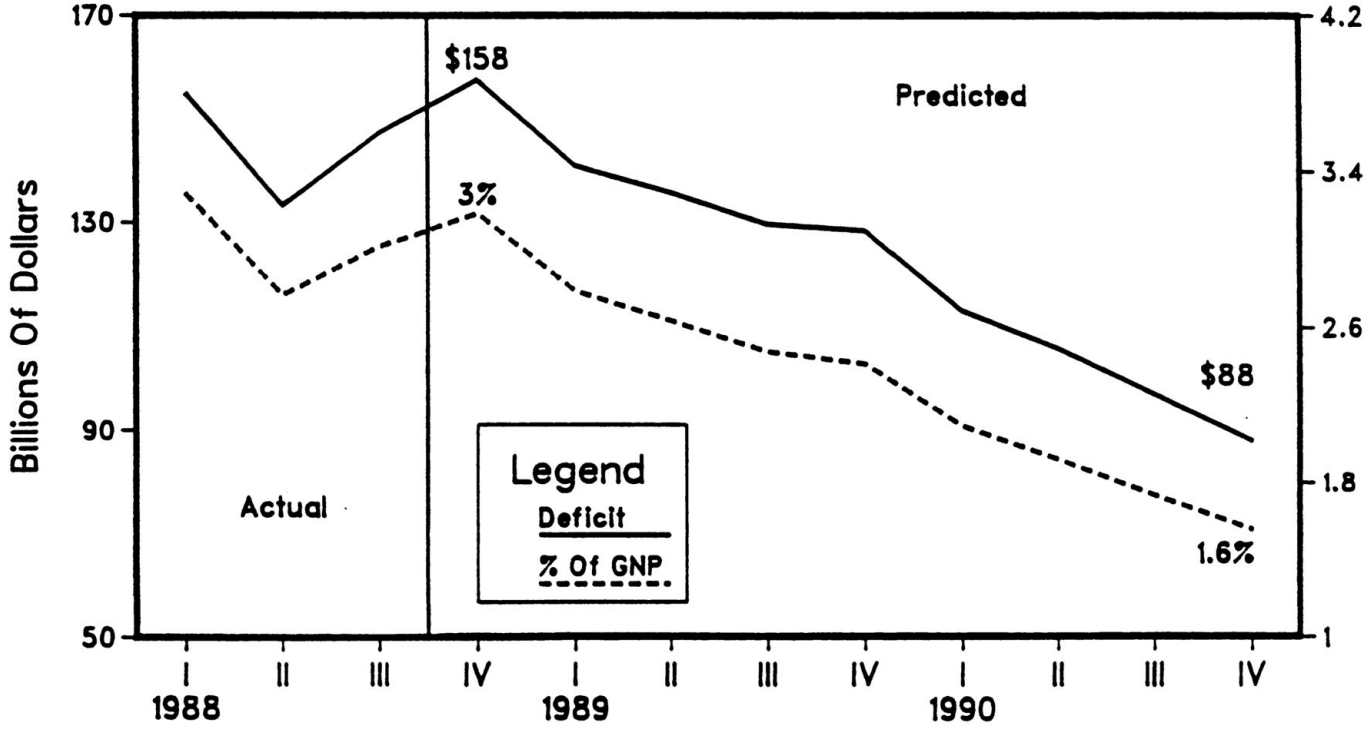


Chart 4: RSQE Control Forecast For 1989–90

E. Interest Rates



F. Federal Government Deficit (NIPA Basis) Billions of Dollars and As a Percent of GNP



The inflation rate featured in Chart 4B is that pertaining to the private nonfarm sector of the economy — essentially the core industrial inflation rate. This, rather than consumer price inflation, is the most appropriate for considering the question of the degree of inflationary momentum in the system. Consumer price inflation will be running at a higher rate, of course — about 5 1/2 percent in the second half of 1990 — but it too will have begun to stabilize.

The next two panels of the chart focus on the dynamics of the foreign sector. As shown in Panel C, the dollar will keep declining in value as part of the process of continuing to shrink our trade deficit. The rate of decline stalls a bit in response to the assumed rise in U.S. interest rates relative to foreign rates early next year, but it picks up again when interest rates come back down a year from now. The dollar is forecast to be declining at a rate of nearly 3 percent during most of 1990. The other two prices shown in Panel C are the dollar price of nonoil imports and the foreign currency price of U.S. exports. The price we will have to pay to import is clearly inflating a good deal more than the price our trading partners will have to pay to import from us. That, of course, is the effect of the depreciating dollar, and is a prime factor in the outlook for continued improvement in our real trade balance, which is shown in Panel D. The deficit of 55 billion 1982 dollars (annual rate) which we are forecasting for the end of 1990 represents but half the size of the real trade deficit at the start of 1988. Real exports grew by 13 percent in calendar 1987, and they'll be up about 17 percent this year. That pace can't continue, but it doesn't have to as long as import growth continues to moderate. In the Control Forecast, real export growth averages 7 1/2 percent at annual rate between 1988.4 and 1990.4. Real imports, on the other hand, increase by 4.3 percent during 1989, and by only 2.2 percent during 1990 under the combined effects of faster dollar depreciation and slower domestic growth. Although not shown on the chart, the nominal trade deficit improves over the forecast horizon as well, but only very slowly. We estimate a $91 billion nominal trade deficit for 1988, and a drop only to $81 billion for 1990.

The dynamics of interest rates in our Control Forecast are shown in Chart 4E. Three month T-bill rates, which we believe would have been edging down throughout 1989.1 but for the assumption of mid-quarter tightening by the Fed, move up to a 7 1/2 percent average for the quarter. The bill rate eases off

in the late spring and summer — averaging just over 7 percent for the summer quarter of '89 — and then drops to about 6.3 percent a year from now as the Fed eases monetary conditions in response to the fiscal tightening required to meet the deficit reduction target for fiscal 1990. Long term interest rates, both corporate and mortgage rates, are already declining, and we expect that to continue until the Fed tightens early next year. We expect most long rates to be up a bit in response to the tighter Fed policy, with mortgage rates up about 30–35 basis points over the first half of next year. This will be temporary, however, and mortgage rates are forecast to be back down to their current levels about a year from now. This pattern of rates implies, for example, that residential building activity will continue its current slow recovery pace through the first quarter of next year, stall again for most of the rest of the year with housing starts ending 1989 at just over 1.4 million units (annual rate), and then begin to recover again at the turn of the year.

The final panel of Chart 4 provides two views of the federal budget deficit. The budget deficit, currently in the range of $140–150 billion (annual rate, NIPA basis), is forecast to be down to an annual rate of about $130 billion a year from now. With our fiscal policy assumptions the federal government is GRH-legal for fiscal 1990 and the deficit is down to an annual rate below $90 billion two years from now. It is useful to remember that the social insurance account in the federal budget is currently running an annual surplus of about $50 billion, and will be up to about $65 billion two years from now, so that our structural budget deficit will still be close to $155 billion even in fiscal 1990.

What if we didn't take a $25 billion fiscal "hit" in 1990? Wouldn't we just have a stronger economy? Is it really worthwhile to close the budget gap? We consider these questions in the next section.

VII. The Cost of Fiscal Tightening in 1990

As explained in the discussion of the inputs to our Control Forecast, we have assumed implementation of federal spending cuts and a personal tax increase in fiscal year 1990. We have made these spending cuts relative to projected spending levels that include increases for inflation and scheduled

program participation in currently legislated federal programs. In the absence of fiscal tightening in 1990, we would assume that the Fed would find little reason to lower interest rates — the discount rate would remain at 7 percent — and the appreciation of U.S. interest rates relative to foreign rates would thereby be maintained. Panel A of Chart 5 compares the projected federal deficit in our Control Forecast to the deficit that would occur, in the context of our other input assumptions, if the GRH federal deficit target for 1990 were ignored. The federal deficit is reduced by $21.5 billion for fiscal year 1990 as a result of the assumed new policy mix with tighter fiscal and easier credit conditions, and the deficit at the beginning of fiscal year 1991, at $88 billion, is lower by $33 billion than would be the case without the fiscal tightening. With the fiscal '91 GRH target at $64 billion, still more fiscal moves might be required for FY '91.

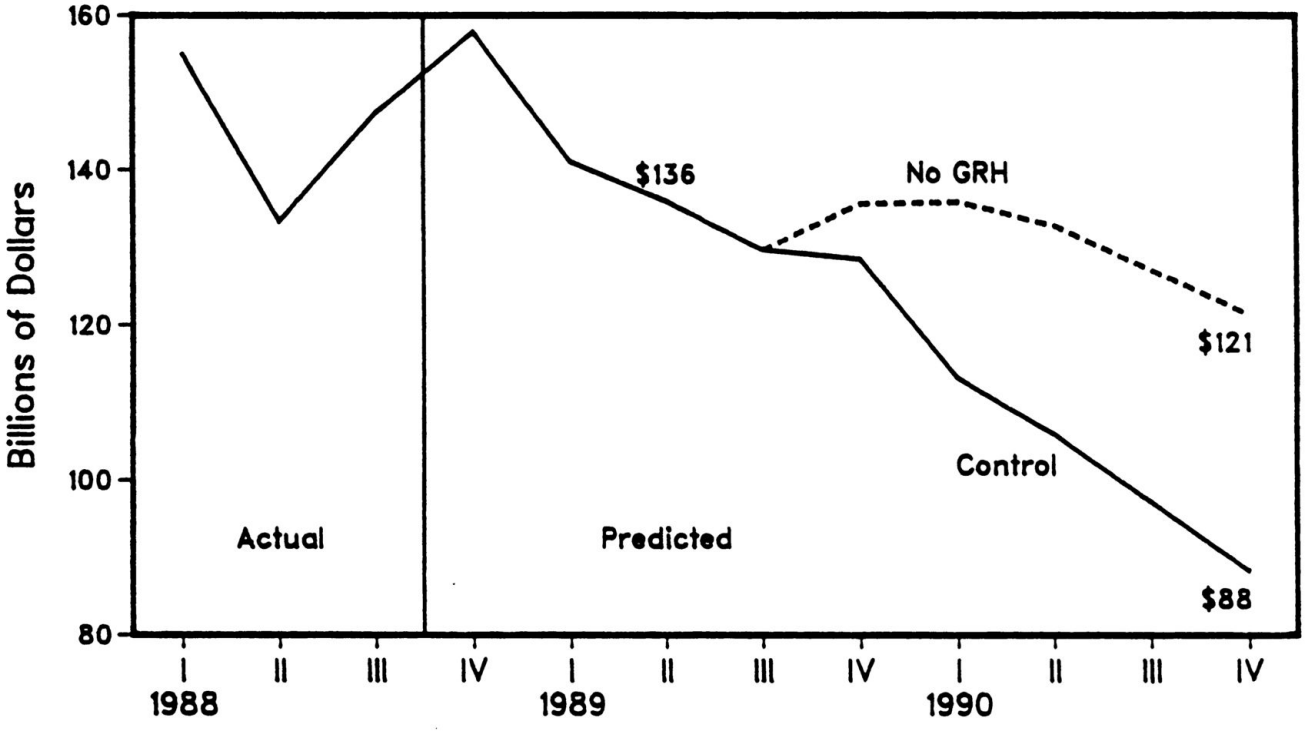
What does it cost to comply with the GRH federal deficit target in fiscal '90? Panel B of Chart 5 compares the growth path of real GNP in our Control Forecast to the growth path of real GNP implied in our alternative forecast which assumes a business-as-usual federal budget that ignores the GRH target. The fiscal tightening with monetary easing policy of our Control Forecast reduces real GNP growth in the final quarter of '89 and the first quarter of '90 relative to real GNP growth in the "no GRH" forecast. By the second quarter of 1990, however, the policy mix in our Control Forecast results in a higher real GNP growth rate and the growth rate remains higher through the end of 1990. The level of real GNP at the end of 1990 is virtually the same in our Control Forecast as in the "no GRH" alternative.

How important is the easier monetary policy that we have assumed accompanies the fiscal tightening in 1990 in our Control Forecast? Panel B of Chart 5 shows that in an alternative forecast with the same fiscal tightening, but without the accompanying monetary ease assumed in our Control Forecast, the real GNP growth rate would remain lower throughout the forecast horizon. The cost is nearly $11 billion in the level of real GNP for calendar 1990, with the level of real GNP lower by $20 billion at the end of 1990 in the "tight money" alternative. The unemployment rate, over 5.8 percent compared to 5.7 percent in our Control Forecast at the end of 1990, is correspondingly higher as well.

Panels C and D of Chart 5 compare interest rates and the value of the dollar in our Control Forecast and in the "tight money" alternative. Short term interest rates, as measured by the 3-month

Chart 5: Alternative Forecasts

A. Federal Government Deficit



B. Annual Rate of Growth of Real GNP

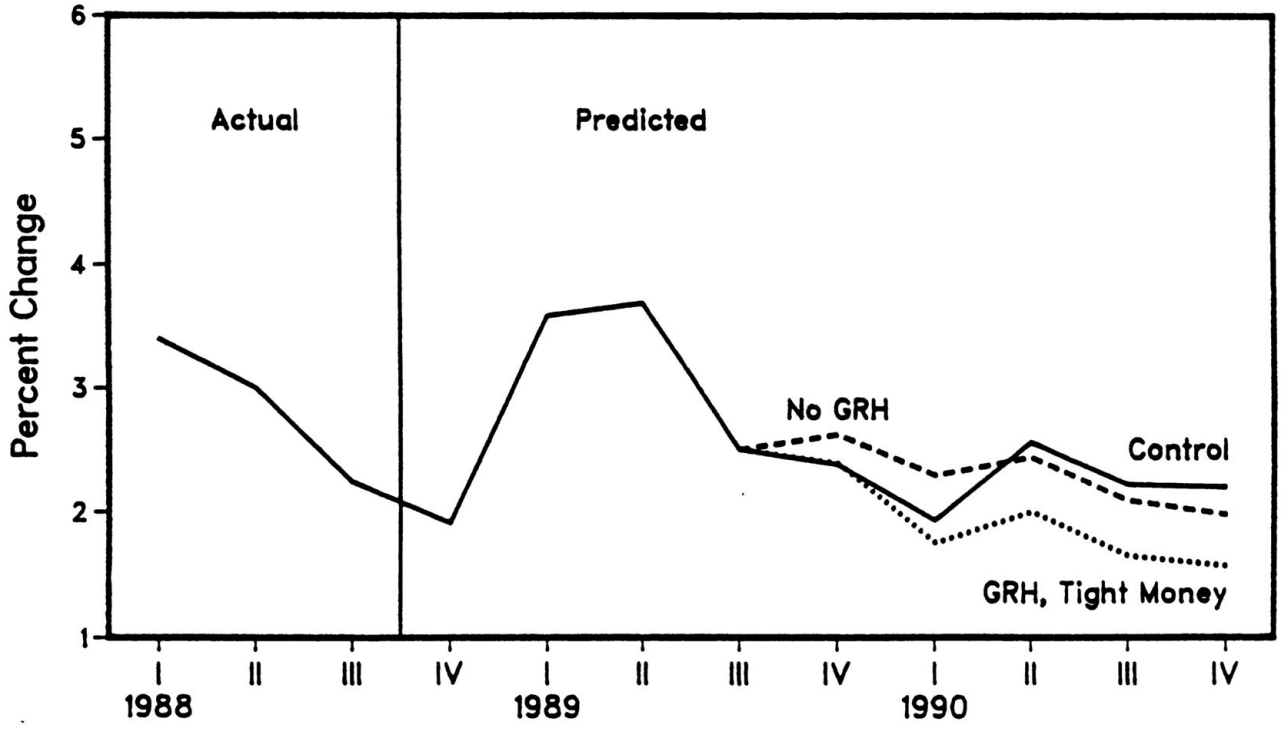
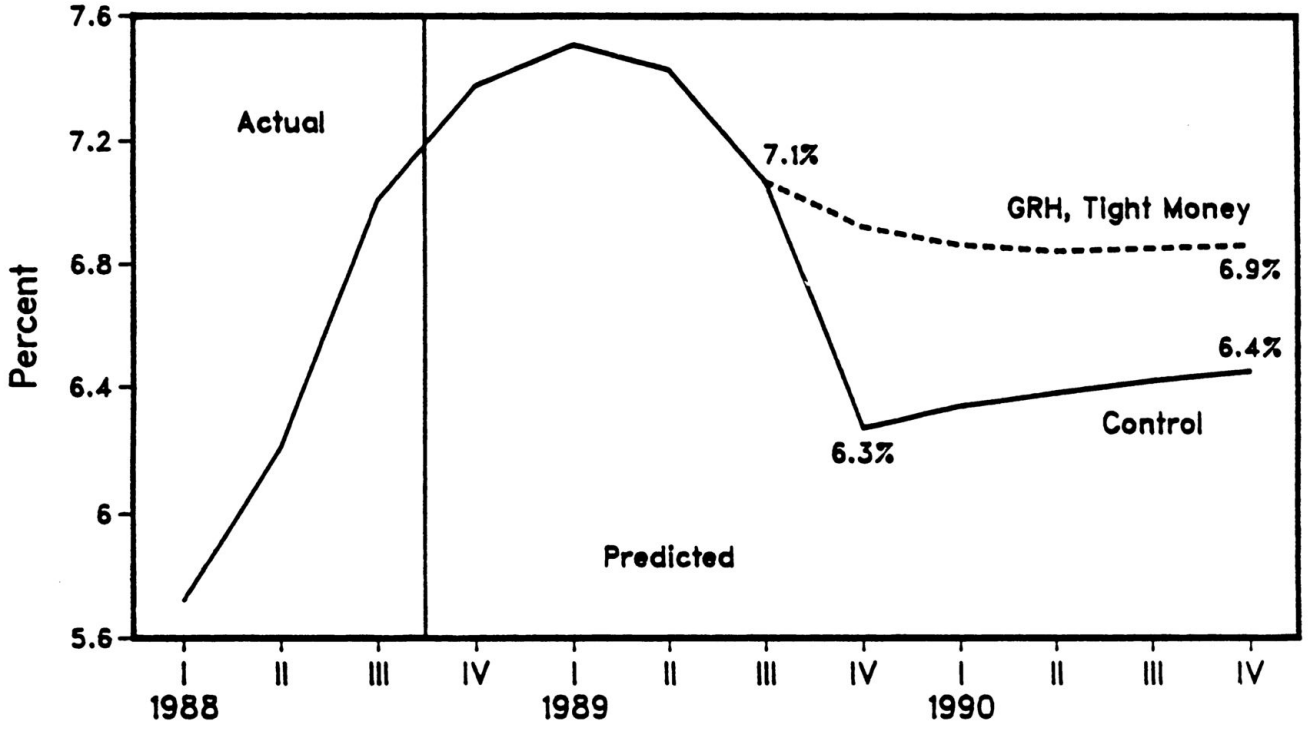


Chart 5: Alternative Forecasts

C. 3 Month T-Bill Rate



D. Exchange Value Of The U.S. Dollar

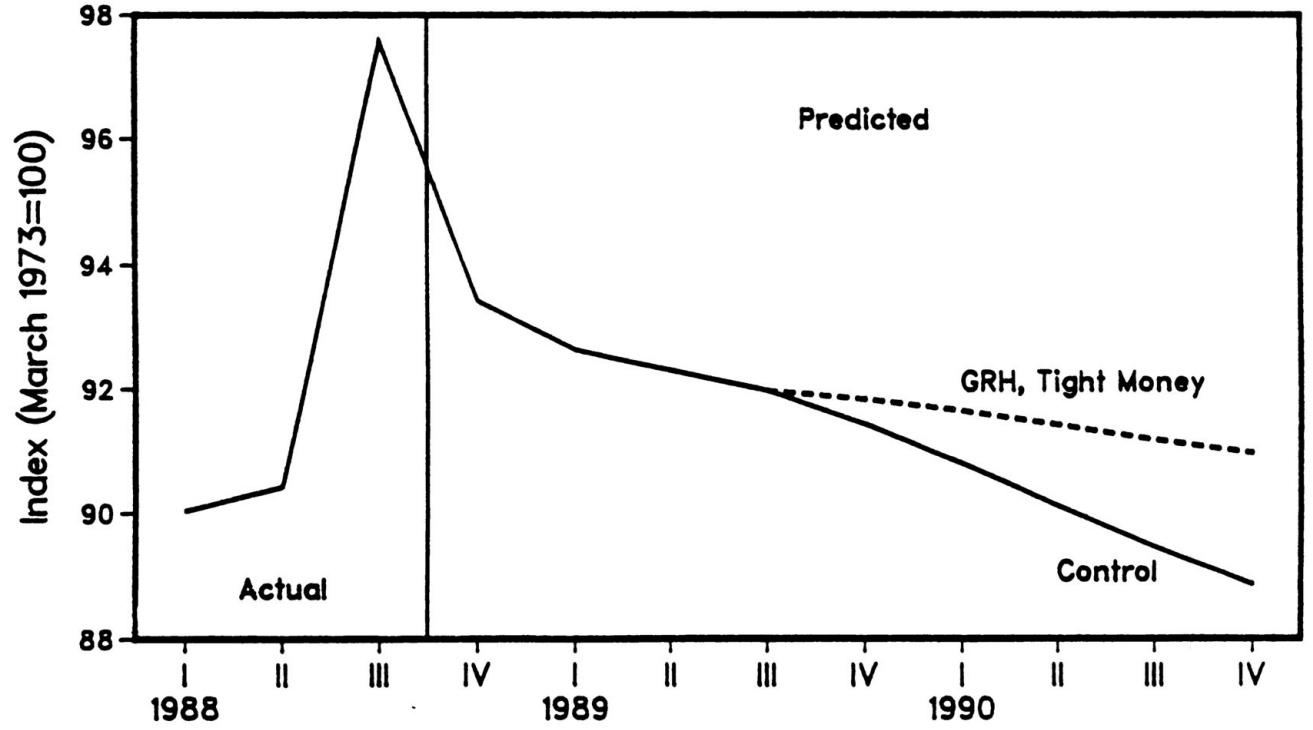
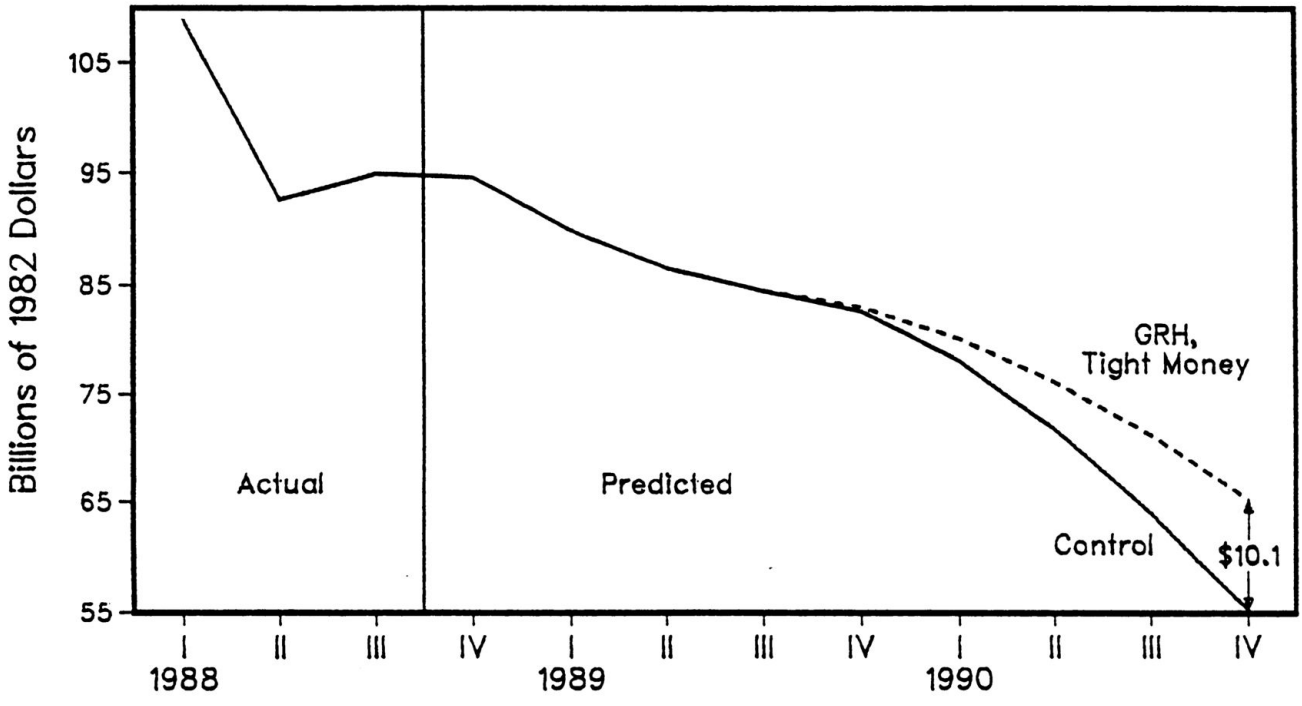
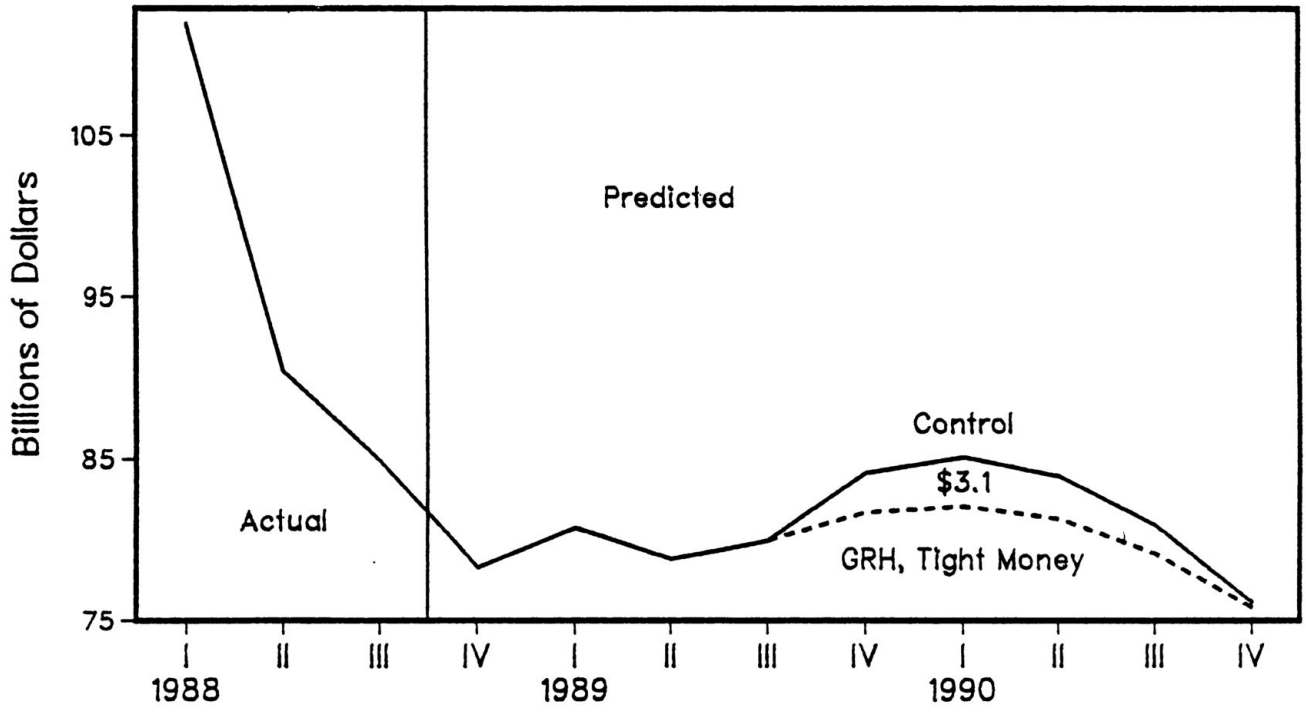


Chart 5: Alternative Forecasts

E. Real Trade Deficit



F. Nominal Trade Deficit



treasury bill rate, are 45 basis points higher in calendar '90 in the "tight money" alternative than in our Control Forecast. The trade weighted value of the dollar falls by only 9/10ths of one percent during 1990 in the "tight money" alternative compared to a 2.8 percent decline in our Control Forecast. The higher value of the dollar in the "tight money" alternative results in higher real imports, but temporarily, in a lower nominal import bill.

Panels E and F of Chart 5 compare the real and nominal trade deficits in our Control Forecast and in the "tight money" alternative. The real trade deficit is smaller in our Control Forecast, declining from $82 1/2 billion in the fourth quarter of '89 to $55 billion in the closing quarter of 1990 in the Control Forecast which includes monetary ease in conjunction with the fiscal tightening. In the "tight money" alternative, the real trade deficit is $10 billion higher at the end of 1990. The nominal trade deficit, however, is initially lower in the "tight money" alternative. The difference reaches $3 billion in the first quarter of 1990, but has virtually disappeared by the end of 1990 — the familiar J-curve effect of a change in prices or exchange rates.

VIII. Final Thoughts

Two months from now, America will inaugurate its 41st president. We last changed regimes eight years ago when President Reagan came on like gang-busters with a huge change in federal fiscal policy, just as he had promised. We took a look back at the Proceedings of the November 1980 Outlook Conference to see how well, or badly, we had anticipated Reaganomics. We had assumed fairly quick passage of a 10 percent personal income tax cut to become effective after the middle of 1981. We were close on the timing of the tax bill's passage, but way low on the magnitude of the cut and missed, of course, on the three-step phase-in. In the same analysis we said in regard to any tax cut package aggregating significantly more than 10 percent,

> "...we assume that a series of tax cuts, unaccompanied by expenditure reductions is unlikely to be forthcoming,..."

and was that ever wrong! A year later, when we knew lots more about the dimensions of Reaganomics, we discussed the fiscal policy debate then in progress, in these words, as reported in the Proceedings of the November 1981 Outlook Conference,

> "The partisan ... debate centers on whether the expansionary impact derived from the supply-side effects on income will be so enormous as to offset the policy-induced swing toward larger deficits and in fact produce shrinking deficits. For a brief period of time, the pushers of this fanciful notion won over some converts in high places. The fad does appear to be petering out, but it has already had a mischievous effect on economic policy..."

and the analysis continued on to worry about the high interest rates that would inevitably result, and predicted a fiscal 1982 budget deficit of $102 billion, compared with OMB's $41 billion, and the $113 billion which materialized.

We were right in 1981, and so was George Bush the year before when he spoke disparagingly of Voodoo Economics. If we do care about the standard of living which future generations will be able to afford, if we do care about who will own and shape the resources of tomorrow's America, then it's none too soon to make the restoration of fiscal sanity — which has indeed characterized most of our history — priority number one.

We're all able to hear the defense establishment; it will protect itself, and presumably us, as it should. But someone has to hear the little people, the quiet voices. And if they too are to be protected — and better than they have been recently — then there's no way that fiscal responsibility can be attained through realistic policies restricted to the expenditure side of the federal budget. We need the leadership which can make that case with credibility, so that the Congress can legislate it, and the people with the capacity to be taxed a bit more each can support it. That's George Bush's crowd; he has the credibility, perhaps he'll even use it for the benefit of our and his grandchildren.

Constant Adjustments in the RSQE Forecast for 1989–1990.

The following adjustments have been used to correct for level drift and start-up error:

A.AUTOSB	New Car Sales to Businesses
A.AUTOSC	New Car Sales to Consumers
A.AUTOSD	New Car Sales, Domestic
A.CDFE82	Personal Consumption Expenditures, Furniture and Household Equipment
A.CN82	Personal Consumption Expenditures, Nondurable Goods
A.DLNX82	Growth Rate of Exports of Goods and Services
A.FDCUR	Change in Currency plus Unborrowed Reserves
A.GCBDD	Federal Government Deposits at Non-Federal Reserve Banks
A.HOUSEX	Sales of Existing Single Family Houses
A.IBFNC8	Nonresidential Construction
A.IINVA8	Change in Business Inventories, New Autos
A.IINVO8	Change in Business Inventories except New Autos and Farm
A.IPDAG8	Investment in Producers' Durable Equipment, Agriculture
A.IPDONA	Investment in Producers' Durable Equipment, Other
A.IPDQ82	Investment in Producers' Durable Equipment, Production
A.IRC82	Residential Construction
A.JCAP	Index of Capacity, Manufacturing
A.JCMH	Index of Compensation per Hour
A.JEXR	Index of Trade Weighted Exchange Value of the Dollar
A.JIPM	Index of Industrial Production, Manufacturing
A.JRAUTO	Index of Auto Financing Charges
A.KCA	Capital Consumption Allowances with Capital Consumption Adjustment
A.MAUTO8	Imports of Cars
A.MNOIL8	Nonpetroleum Imports of Goods and Services
A.M1PLUS	M1PLUS
A.M2PLUS	M2PLUS
A.PCDO	Personal Consumption Expenditures (Other Durable Goods) Deflator
A.PCN	Personal Consumption Expenditures (Nondurable Goods) Deflator
A.PCPI	U.S. Consumer Price Index
A.PCS	Personal Consumption Expenditures (Services) Deflator
A.PGAS	U.S. Consumer Price Index: Motor Fuel, Motor Oil, Coolant, and Other Products
A.PGFNCC	Federal Government Purchases of Goods and Services (excluding Commodity Credit Corporation Activity) Deflator
A.PGSL	State and Local Government Purchases of Goods and Services Deflator
A.PIPDAG	Investment in Producers' Durable Equipment (Agriculture) Deflator
A.PIPDO	Investment in Producers' Durable Equipment (Other) Deflator
A.PIPDQ	Investment in Producers' Durable Equipment (Production) Deflator
A.PIRC	Residential Construction Deflator
A.PPNF	Nonfarm Business GNP Deflator
A.PX	Exports of Goods and Services Deflator
A.QMH77	Index of Output per Hour
A.RAAA	Aaa Corporate Bond Rate
A.RCD	90 Day Certificate of Deposit Rate
A.RFHA	Secondary Mortgage Yield on FHA Mortgages
A.RG5	5 Year Government Bond Rate
A.RMORT	Conventional Mortgage Rate
A.RTB	3 Month Treasury Bill Rate
A.RUG	Civilian Unemployment Rate

A.RUM	Adult Male Unemployment Rate
A.SERVE8	Services Component of GNP
A.TCSL	Corporate Profits Taxes, State and Local
A.TPSL	Personal Taxes, State and Local
A.TSIF	Contributions For Social Insurance, Federal
A.TSIP	Personal Contributions for Social Insurance
A.X82	Exports of Goods and Services
A.YOL	Other Labor Income
A.YPDIV	Dividend Payments to Persons
A.YPINT	Personal Interest Income
A.YPWS	Private Wages and Salaries
A.YUNB	Unemployment Benefits

The following adjustments have been used to incorporate tax law changes:

A.TIBSL	Indirect Business Taxes, State and Local (includes correction for level drift)

RSQE FORECAST FOR 1989-90
Economic Outlook Conference
November 17, 1988

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FORECAST BASED ON MQEM
THE MICHIGAN QUARTERLY ECONOMETRIC MODEL OF THE U.S. ECONOMY

RSQE
Research Seminar in Quantitative Economics
The University of Michigan
Ann Arbor, Michigan 48109

TABLE 1 : RSQE FORECAST
GROSS NATIONAL PRODUCT IN CURRENT DOLLARS
(Billions of current dollars)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
GNP	4899.50	4968.84	5060.36	5155.16	5243.27	5327.67	5416.45	5512.61	5606.98	5703.15
Consumption	3257.61	3305.38	3363.85	3420.72	3479.41	3540.10	3601.49	3670.47	3738.51	3807.85
Durables	453.60	460.13	463.16	467.47	471.44	476.51	481.96	491.63	499.25	507.18
Autos + Parts	211.00	213.77	213.65	215.15	216.47	219.08	222.10	228.82	233.52	238.74
Furn + HH Equip.	159.50	162.74	165.30	167.54	169.64	171.44	173.26	175.35	177.35	179.10
Other	83.10	83.62	84.21	84.78	85.33	86.00	86.59	87.46	88.38	89.34
Nondurables	1057.60	1062.63	1081.49	1097.31	1113.96	1130.28	1146.23	1163.84	1181.72	1199.79
Services	1746.39	1782.62	1819.21	1855.95	1894.01	1933.32	1973.31	2015.01	2057.54	2100.88
Investment	764.40	755.05	767.33	784.22	796.25	809.36	821.38	833.93	847.22	859.37
Nonresidential	493.90	501.46	508.14	515.32	524.53	532.44	540.63	548.71	556.87	565.33
Prod. Durables	350.50	357.09	362.57	367.54	373.51	378.26	383.46	388.57	393.65	398.84
Farm Equipment	12.46	13.86	16.02	17.60	18.49	18.84	19.14	19.53	19.98	20.43
Prod Equipment	93.45	96.60	99.28	101.93	104.85	107.44	110.01	112.60	115.33	118.23
Other Equip.	244.63	246.63	247.27	248.01	250.17	251.98	254.31	256.43	258.33	260.18
Construction	143.30	144.37	145.58	147.78	151.02	154.18	157.17	160.13	163.23	166.48
Residential	227.60	228.67	230.10	231.51	233.07	234.76	239.31	246.08	252.21	257.23
Inventory Change	42.90	24.92	29.09	37.40	38.66	42.16	41.44	39.15	38.14	36.82
Net Exports	-84.90	-78.33	-80.70	-78.81	-79.86	-84.06	-85.08	-83.91	-80.83	-76.10
Exports	526.30	541.36	557.37	574.15	589.39	604.64	621.58	639.46	658.04	677.16
Imports	611.20	619.69	638.07	652.96	669.25	688.70	706.65	723.37	738.87	753.27
Govt Purchases	962.40	986.75	1009.89	1029.03	1047.48	1062.28	1078.66	1092.13	1102.10	1112.05
Federal	373.40	387.00	399.20	407.20	414.30	420.30	427.70	432.00	432.60	433.00
Defense	294.10	298.00	304.00	307.00	309.30	311.50	316.20	318.70	321.00	323.00
Nondefense	79.30	89.00	95.20	100.20	105.00	108.80	111.50	113.30	111.60	110.00
State + Local	589.00	599.75	610.69	621.83	633.18	641.98	650.96	660.13	669.50	679.05
ADDENDA										
GNP Deflator '82=100	122.26	123.41	124.58	125.77	127.13	128.42	129.94	131.41	132.93	134.47
Unemployment Rate	5.49	5.46	5.47	5.44	5.43	5.46	5.47	5.47	5.58	5.70

	1988 Average	1989 Average	1990 Average	87-88 %Change	88-89 %Change	89-90 %Change
GNP	4854.16	5196.61	5559.80	7.23	7.05	6.99
Consumption	3221.42	3451.02	3704.58	6.95	7.13	7.35
Durables	450.33	469.65	495.00	6.75	4.29	5.40
Autos + Parts	208.92	216.09	230.80	6.71	3.43	6.81
Furn + HH Equip.	159.11	168.48	176.27	7.27	5.89	4.62
Other	82.31	85.08	87.94	5.83	3.37	3.37
Nondurables	1043.26	1105.76	1172.89	4.54	5.99	6.07
Services	1727.83	1875.62	2036.68	8.51	8.55	8.59
Investment	760.21	789.29	840.48	6.63	3.82	6.48
Nonresidential	488.67	520.11	552.88	9.37	6.43	6.30
Prod. Durables	346.10	370.47	391.13	12.62	7.04	5.58
Farm Equipment	12.79	17.74	19.77	15.15	38.66	11.48
Prod Equipment	91.42	103.38	114.04	16.28	13.07	10.32
Other Equip.	241.91	249.36	257.31	11.17	3.08	3.19
Construction	142.52	149.64	161.75	2.20	5.00	8.10
Residential	227.34	232.36	248.70	0.20	2.21	7.03
Inventory Change	44.20	36.82	38.89	NA	NA	NA
Net Exports	-91.43	-80.86	-81.48	NA	NA	NA
Exports	515.64	581.39	649.06	20.46	12.75	11.64
Imports	607.07	662.24	730.54	10.16	9.09	10.31
Govt Purchases	963.99	1037.17	1096.23	4.25	7.59	5.69
Federal	380.07	410.25	431.32	-0.48	7.94	5.14
Defense	297.32	307.95	319.72	0.69	3.57	3.82
Nondefense	82.75	102.30	111.60	-4.50	23.63	9.09
State + Local	583.91	626.92	664.91	7.57	7.37	6.06
ADDENDA						
GNP Deflator '82=100	121.53	126.47	132.19	3.30	4.06	4.52
Unemployment Rate	5.53	5.45	5.55	NA	NA	NA

11/17/88 : RSQE Forecast for 1989-90

TABLE 2 : RSQE FORECAST
GROSS NATIONAL PRODUCT IN CONSTANT DOLLARS
(Billions of 1982 dollars, SAAR)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
GNP	4007.30	4026.30	4061.93	4098.93	4124.34	4148.66	4168.55	4194.96	4218.11	4241.12
Consumption	2601.30	2616.19	2628.43	2641.42	2651.94	2663.26	2673.15	2687.54	2699.92	2712.25
Durables	411.10	414.00	414.38	415.36	415.54	416.49	417.53	421.81	424.31	426.92
Autos + Parts	179.50	179.93	178.32	177.66	176.67	176.79	177.13	180.34	181.88	183.75
Furn + HH Equip.	161.00	163.64	165.83	167.67	169.06	170.09	171.09	172.28	173.34	174.14
Other	70.60	70.42	70.22	70.04	69.81	69.61	69.31	69.20	69.10	69.02
Nondurables	901.70	903.22	905.24	908.01	909.96	912.10	913.09	915.12	917.14	919.17
Services	1288.50	1298.97	1308.81	1318.05	1326.44	1334.68	1342.52	1350.61	1358.46	1366.16
Investment	719.70	716.40	727.27	739.80	746.39	753.85	759.14	763.90	768.96	772.95
Nonresidential	495.70	502.49	508.74	513.97	520.39	525.37	530.25	534.54	538.56	542.64
Prod. Durables	370.30	376.51	382.37	386.78	391.77	395.48	399.35	402.75	405.85	408.90
Farm Equipment	10.63	11.79	13.59	14.87	15.53	15.70	15.83	16.02	16.24	16.45
Prod Equipment	78.30	80.39	82.00	83.51	85.07	86.24	87.26	88.17	89.09	90.06
Other Equip.	281.35	284.33	286.78	288.41	291.18	293.54	296.26	298.56	300.52	302.40
Construction	125.50	125.98	126.37	127.18	128.61	129.88	130.90	131.79	132.72	133.74
Residential	190.20	190.59	191.35	191.13	190.43	190.03	191.49	194.40	196.73	198.15
Inventory Change	33.80	23.33	27.18	34.70	35.57	38.45	37.40	34.96	33.67	32.16
New Autos	-0.30	1.52	2.19	1.55	1.39	1.16	1.12	0.84	1.43	1.31
Other	34.10	21.81	24.99	33.14	34.18	37.29	36.28	34.12	32.24	30.84
Net Exports	-94.90	-94.60	-89.93	-86.49	-84.36	-82.48	-78.02	-71.74	-64.03	-55.20
Exports	507.00	512.85	521.86	532.36	541.76	551.31	561.20	571.38	581.82	592.50
Imports	601.90	607.45	611.79	618.85	626.12	633.79	639.22	643.12	645.84	647.70
Govt Purchases	781.10	788.30	796.16	804.21	810.38	814.03	814.28	815.27	813.26	811.12
ADDENDA										
Final Sales Domestic Purchasers	4068.40	4097.56	4124.68	4150.72	4173.13	4192.68	4209.16	4231.73	4248.46	4264.16
Unemployment Rate	5.49	5.46	5.47	5.44	5.43	5.46	5.47	5.47	5.58	5.70

	1988 Average	1989 Average	1990 Average	87-88 %Change	88-89 %Change	89-90 %Change
GNP	3993.72	4108.46	4205.68	3.81	2.87	2.37
Consumption	2589.07	2646.26	2693.21	2.70	2.21	1.77
Durables	409.20	415.44	422.64	4.67	1.53	1.73
Autos + Parts	177.98	177.36	180.77	4.47	-0.35	1.93
Furn + HH Equip.	160.94	168.16	172.71	6.56	4.49	2.70
Other	70.28	69.92	69.16	1.05	-0.52	-1.09
Nondurables	897.81	908.83	916.13	0.82	1.23	0.80
Services	1282.04	1321.99	1354.44	3.43	3.12	2.45
Investment	720.03	741.83	766.24	6.71	3.03	3.29
Nonresidential	490.45	517.12	536.50	10.18	5.44	3.75
Prod. Durables	365.33	389.10	404.21	14.31	6.51	3.88
Farm Equipment	10.89	14.92	16.13	13.18	36.98	8.13
Prod Equipment	76.87	84.21	88.65	11.73	9.54	5.27
Other Equip.	277.56	289.98	299.44	15.07	4.47	3.26
Construction	125.12	128.01	132.28	-0.30	2.31	3.34
Residential	189.97	190.74	195.19	-2.68	0.40	2.34
Inventory Change	39.61	33.97	34.55	NA	NA	NA
New Autos	-1.12	1.58	1.18	NA	NA	NA
Other	40.73	32.40	33.37	NA	NA	NA
Net Exports	-97.75	-85.81	-67.25	NA	NA	NA
Exports	500.74	536.82	576.72	17.04	7.21	7.43
Imports	598.49	622.64	643.97	7.51	4.04	3.43
Govt Purchases	782.40	806.20	813.48	0.29	3.04	0.90
ADDENDA						
Final Sales Domestic Purchasers	4051.87	4160.30	4238.37	2.80	2.68	1.88
Unemployment Rate	5.53	5.45	5.55	NA	NA	NA

11/17/88 : RSQE Forecast for 1989-90

TABLE 3 : RSQE FORECAST
PERSONAL INCOME AND ITS DISPOSITION
(Billions of current dollars, SAAR)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
PERSONAL INCOME	4086.00	4163.55	4243.43	4316.84	4384.01	4452.52	4528.60	4604.91	4681.12	4758.04
Wage + Salary Disb.	2460.00	2505.14	2559.06	2607.91	2653.93	2700.51	2752.23	2803.78	2851.88	2901.13
Private	2011.00	2050.89	2093.62	2136.10	2175.66	2215.92	2256.00	2299.14	2342.10	2386.11
Government	449.00	454.25	465.44	471.81	478.27	484.59	496.23	504.64	509.78	515.02
Other Labor Income	219.50	222.34	225.22	228.11	230.91	233.70	236.49	239.41	242.39	245.47
Proprietors' Income	319.20	326.84	330.29	337.17	338.45	345.30	350.90	356.65	361.83	367.26
Farm	29.00	34.03	33.20	33.01	29.75	31.20	31.30	31.19	31.08	31.05
Nonfarm	290.20	292.81	297.10	304.16	308.71	314.09	319.60	325.46	330.75	336.21
Rental Income	20.00	20.29	20.59	20.89	21.20	21.51	21.83	22.15	22.47	22.80
Dividends	97.30	99.22	100.79	102.41	104.03	105.71	107.42	109.17	110.92	112.68
Interest Income	579.30	593.89	602.75	610.54	620.22	624.78	629.44	639.61	652.25	663.99
Transfers	587.40	595.16	611.76	619.65	627.76	636.15	656.07	662.90	670.94	679.12
Unemploy Benefits	13.70	13.90	14.23	14.38	14.66	15.12	15.72	16.27	16.95	17.66
Other	573.70	581.26	597.53	605.27	613.10	621.03	640.35	646.63	653.99	661.46
Less:										
Pers Soc Ins Cont	196.70	199.31	207.01	209.83	212.48	215.14	225.77	228.73	231.53	234.39
Less:										
PERSONAL TAXES	587.10	601.87	616.04	629.31	640.31	651.80	679.41	692.74	705.60	718.52
Equals:										
DISP PERSONAL INCOME	3498.90	3561.67	3627.40	3687.53	3743.70	3800.71	3849.19	3912.18	3975.52	4039.51
Less:										
Personal Outlays	3358.61	3408.05	3468.01	3526.39	3586.61	3648.86	3711.82	3782.41	3852.07	3923.06
Equals:										
PERSONAL SAVING	140.29	153.63	159.38	161.13	157.09	151.85	137.37	129.77	123.46	116.46
ADDENDA										
Disp Pers Income 82$	2794.00	2819.05	2834.35	2847.44	2853.38	2859.32	2856.99	2864.52	2871.09	2877.27
Pers Saving Rate, %	4.00	4.31	4.39	4.37	4.20	4.00	3.57	3.32	3.11	2.88

	1988 Average	1989 Average	1990 Average	87-88 %Change	88-89 %Change	89-90 %Change
PERSONAL INCOME	4055.84	4349.20	4643.17	7.30	7.23	6.76
Wage + Salary Disb.	2433.46	2630.35	2827.25	8.23	8.09	7.49
Private	1987.65	2155.32	2320.83	8.71	8.44	7.68
Government	445.81	475.03	506.42	6.13	6.55	6.61
Other Labor Income	218.23	229.49	240.94	4.98	5.16	4.99
Proprietors' Income	324.66	337.80	359.16	3.74	4.05	6.32
Farm	37.78	31.79	31.16	-12.09	-15.86	-1.99
Nonfarm	286.88	306.01	328.00	6.26	6.67	7.19
Rental Income	19.97	21.05	22.31	8.25	5.38	6.01
Dividends	96.25	103.24	110.05	8.64	7.25	6.60
Interest Income	572.77	614.57	646.32	8.69	7.30	5.17
Transfers	585.41	623.83	667.26	6.68	6.56	6.96
Unemploy Benefits	13.72	14.60	16.65	-6.48	6.35	14.06
Other	571.69	609.23	650.61	7.04	6.57	6.79
Less:						
Pers Soc Ins Cont	194.93	211.11	230.11	13.33	8.30	9.00
Less:						
PERSONAL TAXES	591.44	634.37	699.07	3.70	7.26	10.20
Equals:						
DISP PERSONAL INCOME	3464.42	3714.83	3944.10	7.94	7.23	6.17
Less:						
Personal Outlays	3321.49	3557.47	3817.34	6.95	7.10	7.30
Equals:						
PERSONAL SAVING	142.93	157.37	126.76	37.29	10.10	-19.45
ADDENDA						
Disp Pers Income 82$	2784.39	2848.62	2867.47	3.65	2.31	0.66
Pers Saving Rate, %	4.10	4.24	3.22	NA	NA	NA

11/17/88 : RSQE Forecast for 1989-90

TABLE 4 : RSQE FORECAST
RELATION OF GNP, NNP + PERSONAL INCOME
(Billions of current dollars, SAAR)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
GROSS NATIONAL PROD	4899.50	4968.84	5060.36	5155.16	5243.27	5327.67	5416.45	5512.61	5606.98	5703.15
Less:										
CCA w/ Consump Adj	508.00	514.45	521.13	529.25	538.26	547.44	557.07	567.22	577.82	588.76
Equals:										
NET NATIONAL PRODUCT	4391.50	4454.39	4539.22	4625.91	4705.01	4780.23	4859.38	4945.39	5029.16	5114.39
Less:										
Indirect Busn. Tax	391.30	395.54	401.97	408.75	415.70	422.81	430.05	437.89	445.78	453.79
Business Transfers	31.10	31.80	32.50	33.20	33.90	34.60	35.30	36.00	36.70	37.40
Stat Discrepancy	-2.70	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00	-6.00
Plus:										
Sub less Cur Surpl of Govt Enterprise	35.20	35.00	12.80	10.80	1.80	6.70	6.50	6.30	6.10	5.90
Equals:										
NATIONAL INCOME	4007.00	4068.05	4123.55	4200.75	4263.20	4335.51	4406.53	4483.79	4558.77	4635.09
Less:										
Corp. Profits	340.00	328.98	315.00	323.60	323.94	333.39	335.76	339.65	342.66	346.62
Net Interest	396.50	408.65	414.78	420.15	427.67	429.81	432.07	440.39	451.41	461.22
Social Ins Contrib	448.40	455.13	465.63	472.76	479.58	486.43	503.03	510.49	517.67	525.00
Wage Acc less Disb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plus:										
Govt Transfers	556.30	563.36	579.26	586.45	593.86	601.55	620.77	626.90	634.24	641.72
Interest Income	579.30	593.89	602.75	610.54	620.22	624.78	629.44	639.61	652.25	663.99
Dividends	97.30	99.22	100.79	102.41	104.03	105.71	107.42	109.17	110.92	112.68
Business Transfers	31.10	31.80	32.50	33.20	33.90	34.60	35.30	36.00	36.70	37.40
Equals:										
PERSONAL INCOME	4086.00	4163.55	4243.43	4316.84	4384.01	4452.52	4528.60	4604.91	4681.12	4758.04

	1988 Average	1989 Average	1990 Average	87-88 %Change	88-89 %Change	89-90 %Change
GROSS NATIONAL PROD	4854.16	5196.61	5559.80	7.23	7.05	6.99
Less:						
CCA w/ Consump Adj	505.99	534.02	572.72	5.42	5.54	7.25
Equals:						
NET NATIONAL PRODUCT	4348.17	4662.59	4987.08	7.45	7.23	6.96
Less:						
Indirect Busn. Tax	388.01	412.31	441.88	5.93	6.26	7.17
Business Transfers	30.70	33.55	36.35	9.06	9.28	8.35
Stat Discrepancy	-7.20	-6.00	-6.00	NA	NA	NA
Plus:						
Sub less Cur Surpl of Govt Enterprise	27.02	8.02	6.20	NA	NA	NA
Equals:						
NATIONAL INCOME	3963.68	4230.75	4521.04	7.75	6.74	6.86
Less:						
Corp. Profits	327.92	323.98	341.17	5.64	-1.20	5.31
Net Interest	389.91	423.10	446.27	10.29	8.51	5.48
Social Ins Contrib	444.43	476.10	514.05	11.36	7.13	7.97
Wage Acc less Disb	0.00	0.00	0.00	NA	NA	NA
Plus:						
Govt Transfers	554.71	590.28	630.91	6.55	6.41	6.88
Interest Income	572.77	614.57	646.32	8.69	7.30	5.17
Dividends	96.25	103.24	110.05	8.64	7.25	6.60
Business Transfers	30.70	33.55	36.35	9.06	9.28	8.35
Equals:						
PERSONAL INCOME	4055.84	4349.20	4643.17	7.30	7.23	6.76

11/17/88 : RSQE Forecast for 1989-90

TABLE 5 : RSQE FORECAST
SUPPLEMENTARY DATA
(SAAR where applicable)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
Agg GNP Deflator (1982=100)	122.26	123.41	124.58	125.77	127.13	128.42	129.94	131.41	132.93	134.47
Pers Cons Deflator (1982=100)	125.23	126.34	127.98	129.50	131.20	132.92	134.73	136.57	138.47	140.39
CPI (1982-84=100)	119.10	120.78	122.20	123.65	125.31	126.94	128.57	130.27	132.04	133.85
Value of US $ (3/73=100)	97.58	93.42	92.62	92.29	91.96	91.41	90.78	90.11	89.47	88.87
PRIVATE NONFARM SECTOR										
Price Deflator (1982=100)	120.30	121.35	122.00	123.10	124.52	125.72	127.03	128.39	129.77	131.16
Compensation/Hour (1977=100)	199.30	201.72	204.27	206.73	209.38	212.11	215.55	218.49	221.53	224.66
Output/Hour (1977=100)	110.50	110.39	110.71	111.21	111.60	111.97	112.30	112.72	113.11	113.51
Unit Labor Cost (1977=100)	180.40	182.73	184.51	185.90	187.62	189.43	191.95	193.83	195.85	197.93
MANUFACTURING SECTOR										
Indust Prod (1977=100)	143.70	145.12	146.52	148.55	150.16	151.50	152.48	153.44	154.53	155.63
Capacity Util Rate, %	83.80	84.05	84.28	84.87	85.19	85.36	85.31	85.25	85.27	85.28
UNEMPLOYMENT RATES										
Aggregate	5.49	5.46	5.47	5.44	5.43	5.46	5.47	5.47	5.58	5.70
Male 20 and over	4.65	4.63	4.66	4.62	4.62	4.68	4.79	4.88	4.97	5.06
MONETARY SECTOR										
90 Day Treas Rate, %	7.01	7.38	7.51	7.43	7.07	6.27	6.34	6.38	6.42	6.45
90 Day CD Rate, %	8.17	8.45	8.45	8.55	8.25	7.32	7.17	7.37	7.49	7.49
Corp Aaa Rate, %	9.96	9.48	9.44	9.57	9.59	9.44	9.46	9.49	9.51	9.56
5 Year Govt Rate, %	8.76	8.43	8.46	8.58	8.54	8.03	8.05	8.15	8.24	8.15
Mortage Rate, Conv, %	10.50	10.24	10.24	10.48	10.57	10.41	10.22	10.21	10.24	10.29
M2+ (Billions of $)	3299.10	3345.89	3396.10	3447.69	3502.85	3569.49	3637.50	3704.66	3773.44	3848.11
M2+ Growth Rate, %	4.23	5.79	6.14	6.22	6.55	7.83	7.84	7.59	7.64	8.15
Change in Par Value Of Govt Debt (Bill $)	25.10	47.71	40.96	30.57	27.62	40.44	35.73	20.60	20.69	30.33
AUTOMOTIVE SECTOR										
Unit Car Sales (Mil)	10.66	10.64	10.50	10.41	10.36	10.35	10.35	10.60	10.68	10.79
Domestics (Mil)	7.60	7.63	7.51	7.43	7.36	7.33	7.31	7.45	7.47	7.51
Imports (Mil)	3.06	3.01	2.99	2.98	2.99	3.01	3.04	3.15	3.20	3.28
Import Share (%)	28.68	28.33	28.44	28.60	28.91	29.14	29.35	29.74	30.01	30.37
Gross Auto Product (Billions of 1982 $)	110.40	112.78	112.43	111.29	110.68	110.57	110.71	113.48	114.99	116.23

	1988 Average	1989 Average	1990 Average	87-88 %Change	88-89 %Change	89-90 %Change
Agg GNP Deflator (1982=100)	121.53	126.47	132.19	3.30	4.06	4.52
Pers Cons Deflator (1982=100)	124.41	130.40	137.54	4.13	4.82	5.47
CPI (1982-84=100)	118.37	124.53	131.18	4.15	5.20	5.34
Value of US $ (3/73=100)	92.86	92.07	89.81	-4.21	-0.85	-2.46
PRIVATE NONFARM SECTOR						
Price Deflator (1982=100)	119.74	123.84	129.09	2.67	3.42	4.24
Compensation/Hour (1977=100)	198.06	208.12	220.06	4.63	5.08	5.74
Output/Hour (1977=100)	110.45	111.37	112.91	1.35	0.84	1.38
Unit Labor Cost (1977=100)	179.36	186.86	194.89	3.26	4.18	4.30
MANUFACTURING SECTOR						
Indust Prod (1977=100)	142.51	149.18	154.02	5.83	4.69	3.24
Capacity Util Rate, %	83.44	84.92	85.28	NA	NA	NA
UNEMPLOYMENT RATES						
Aggregate	5.53	5.45	5.55	NA	NA	NA
Male 20 and over	4.74	4.65	4.92	NA	NA	NA
MONETARY SECTOR						
90 Day Treas Rate, %	6.58	7.07	6.40	NA	NA	NA
90 Day CD Rate, %	7.64	8.14	7.38	NA	NA	NA
Corp Aaa Rate, %	9.70	9.51	9.50	NA	NA	NA
5 Year Govt Rate, %	8.38	8.40	8.15	NA	NA	NA
Mortage Rate, Conv, %	10.30	10.43	10.24	NA	NA	NA
M2+ (Billions of $)	3281.79	3479.03	3740.92	4.88	6.01	7.53
M2+ Growth Rate, %	5.92	6.68	7.81	NA	NA	NA
Change in Par Value Of Govt Debt (Bill $)	28.13	34.90	26.84	NA	NA	NA
AUTOMOTIVE SECTOR						
Unit Car Sales (Mil)	10.68	10.40	10.60	3.90	-2.58	1.92
Domestics (Mil)	7.59	7.41	7.44	7.13	-2.31	0.34
Imports (Mil)	3.09	2.99	3.17	-3.25	-3.24	5.82
Import Share (%)	28.96	28.77	29.87	NA	NA	NA
Gross Auto Product (Billions of 1982 $)	107.60	111.24	113.85	6.93	3.39	2.35

11/17/88 : RSQE Forecast for 1989-90

TABLE 6 : RSQE FORECAST
FEDERAL GOVERNMENT RECEIPTS AND EXPENDITURES
(Billions of current dollars, SAAR)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
RECEIPTS	978.60	990.08	1015.28	1036.01	1049.91	1068.10	1108.28	1125.87	1142.38	1159.56
Personal Taxes	408.90	419.76	430.04	439.51	446.89	454.73	478.57	487.98	496.96	505.99
Corp Profit Tax	115.50	109.91	114.70	119.20	119.33	123.31	123.51	124.66	125.46	126.75
Indirect Busn. Tax	57.20	57.57	58.08	58.61	59.10	59.57	60.06	60.61	61.14	61.68
Social Ins Contrib.	397.00	402.85	412.46	418.68	424.58	430.49	446.14	452.63	458.82	465.15
EXPENDITURES	1126.00	1147.95	1156.18	1171.83	1179.49	1196.50	1221.29	1231.75	1239.44	1247.81
Purchases	373.40	387.00	399.20	407.20	414.30	420.30	427.70	432.00	432.60	433.00
Defense	294.10	298.00	304.00	307.00	309.30	311.50	316.20	318.70	321.00	323.00
Nondefense	79.30	89.00	95.20	100.20	105.00	108.80	111.50	113.30	111.60	110.00
Transfers	440.40	444.69	458.37	463.31	468.44	473.80	490.65	496.37	502.27	508.26
To Persons	428.80	433.69	447.37	452.31	457.44	462.80	479.65	485.37	491.27	497.26
To Foreigners	11.60	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Grants in Aid	109.40	111.00	112.50	114.50	116.50	114.50	112.50	111.00	110.50	110.50
Net Interest Paid	152.80	155.27	158.11	160.62	162.86	165.40	167.94	169.88	171.57	173.56
Sub less Cur Surplus of Gov't Enterprises	50.00	50.00	28.00	26.20	17.40	22.50	22.50	22.50	22.50	22.50
Less:										
Wage Acc less Disb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SURPLUS (NIPA)	-147.40	-157.87	-140.90	-135.82	-129.58	-128.41	-113.01	-105.88	-97.06	-88.25

	Fiscal 1988	Fiscal 1989	Fiscal 1990	87-88 %Change	88-89 %Change	89-90 %Change
RECEIPTS	964.25	1022.82	1111.16	7.78	6.07	8.64
Personal Taxes	415.20	434.05	479.56	5.21	4.54	10.48
Corp Profit Tax	110.52	115.78	124.24	9.08	4.76	7.30
Indirect Busn. Tax	56.00	58.34	60.34	5.56	4.18	3.43
Social Ins Contrib.	382.52	414.64	447.02	10.68	8.40	7.81
EXPENDITURES	1113.25	1163.86	1222.24	5.22	4.55	5.02
Purchases	381.17	401.92	428.15	1.44	5.44	6.52
Defense	297.62	304.57	316.85	2.63	2.34	4.03
Nondefense	83.55	97.35	111.30	-2.59	16.52	14.33
Transfers	433.70	458.70	490.77	5.81	5.76	6.99
To Persons	421.07	447.70	479.77	5.76	6.32	7.16
To Foreigners	12.62	11.00	11.00	7.45	-12.87	0.00
Grants in Aid	108.07	113.62	112.12	5.03	5.14	-1.32
Net Interest Paid	151.07	159.21	168.70	8.08	5.39	5.96
Sub less Cur Surplus of Gov't Enterprises	39.17	30.40	22.50	NA	NA	NA
Less:						
Wage Acc less Disb	-0.05	0.00	0.00	NA	NA	NA
SURPLUS (NIPA)	-149.05	-141.05	-111.09	NA	NA	NA

TABLE 7 : RSQE FORECAST
STATE AND LOCAL GOVERNMENT RECEIPTS AND EXPENDITURES
(Billions of current dollars, SAAR)

	1988:3 Actual	1988:4	1989:1	1989:2	1989:3	1989:4	1990:1	1990:2	1990:3	1990:4
RECEIPTS	706.30	715.61	727.15	741.24	754.72	765.16	775.25	786.70	799.06	812.11
Personal Taxes	178.20	182.12	186.00	189.80	193.43	197.08	200.84	204.76	208.64	212.53
Corp Profit Tax	33.10	32.24	31.60	32.72	33.20	34.40	35.03	35.80	36.43	37.12
Indirect Busn. Tax	334.20	337.98	343.88	350.14	356.60	363.25	369.98	377.29	384.64	392.11
Social Ins Contrib.	51.40	52.28	53.17	54.08	55.00	55.94	56.89	57.86	58.85	59.85
Grants in Aid	109.40	111.00	112.50	114.50	116.50	114.50	112.50	111.00	110.50	110.50
EXPENDITURES	652.10	663.82	675.68	687.77	700.10	709.83	719.78	727.96	737.37	747.01
Purchases	589.00	599.75	610.69	621.83	633.18	641.98	650.96	660.13	669.50	679.05
Transfers	127.50	129.67	131.89	134.14	136.42	138.75	141.12	141.53	142.97	144.46
Net Interest Paid	-41.20	-41.90	-42.70	-43.50	-44.30	-45.20	-46.10	-47.00	-47.90	-48.80
Less:										
Div rec'd by Gov't	8.40	8.70	9.00	9.30	9.60	9.90	10.20	10.50	10.80	11.10
Sub less Cur Surplus of Gov't Enterprises	-14.80	-15.00	-15.20	-15.40	-15.60	-15.80	-16.00	-16.20	-16.40	-16.60
Less:										
Wage Acc less Disb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SURPLUS (NIPA)	54.20	51.79	51.48	53.47	54.62	55.33	55.47	58.74	61.69	65.10

	Fiscal 1988	Fiscal 1989	Fiscal 1990	87-88 %Change	88-89 %Change	89-90 %Change
RECEIPTS	689.25	734.68	781.54	6.51	6.59	6.38
Personal Taxes	173.52	187.84	202.83	7.33	8.25	7.98
Corp Profit Tax	30.70	32.44	35.41	13.91	5.67	9.16
Indirect Busn. Tax	326.67	347.15	373.79	6.13	6.27	7.67
Social Ins Contrib.	50.27	53.63	57.38	5.12	6.68	7.00
Grants in Aid	108.07	113.62	112.12	5.03	5.14	-1.32
EXPENDITURES	635.30	681.84	723.73	7.13	7.33	6.14
Purchases	572.95	616.36	655.64	7.34	7.58	6.37
Transfers	124.75	133.03	141.09	6.99	6.64	6.06
Net Interest Paid	-39.95	-43.10	-46.55	8.34	7.88	8.00
Less:						
Div rec'd by Gov't	7.95	9.15	10.35	20.45	15.09	13.11
Sub less Cur Surplus	-14.50	-15.30	-16.10	NA	NA	NA
of Gov't Enterprises						
Less:						
Wage Acc less Disb	0.00	0.00	0.00	NA	NA	NA
SURPLUS (NIPA)	53.97	52.84	57.81	NA	NA	NA

11/17/88 : RSQE Forecast for 1989-90

SIMULATION OUTPUT BY DSET

NON-ZERO ADJUSTMENT CONSTANTS

		A.AUTOSB	A.AUTOSC	A.AUTOSD	A.CDFE82	A.CN82	A.DLNX82	A.FDCUR	A.GCBDD	A.HOUSEX	A.IBFNC8
1988	4	-0.2	-1.	0.25	3.5	-16.	0.011	-0.5	3.	-100.	-5.
1989	1	-0.15	-0.9	0.25	3.5	-13.	0.005	-0.5	3.	-100.	-5.
1989	2	-0.15	-0.8	0.25	3.5	-13.	0.005	-0.5	3.	-100.	-5.
1989	3	-0.15	-0.8	0.25	3.5	-13.	0.001	-0.5	3.	-100.	-5.
1989	4	-0.15	-0.8	0.25	3.5	-13.	0.003	-0.5	3.	-100.	-5.
1990	1	-0.15	-0.8	0.25	3.5	-13.	0.003	-0.5	3.	-100.	-5.
1990	2	-0.15	-0.8	0.25	3.5	-13.	0.003	-0.5	3.	-100.	-5.
1990	3	-0.15	-0.8	0.25	3.5	-13.	0.003	-0.5	3.	-100.	-5.
1990	4	-0.15	-0.8	0.25	3.5	-13.	0.003	-0.5	3.	-100.	-5.

		A.IINVA8	A.IINVO8	A.IPDAG8	A.IPDONA	A.IPDQ82	A.IRC82	A.JCAP	A.JCMH	A.JEXR	A.JIPM
1988	4	-1.	-7.	-1.3	6.	0.2	-2.5	0.5	-0.6	0.8	0.
1989	1	0.	-8.	-1.	6.	0.	-3.	0.5	-0.6	0.4	-0.5
1989	2	0.	-9.	-1.2	6.	-0.2	-5.	0.5	-0.6	0.2	-0.5
1989	3	0.	-10.	-1.4	6.	-0.4	-5.	0.5	-0.6	0.	-0.5
1989	4	0.	-10.	-1.6	6.	-0.6	-5.	0.5	-0.6	0.	-0.5
1990	1	0.	-10.	-1.6	6.	-0.6	-5.	0.5	-0.6	0.	-0.5
1990	2	0.	-10.	-1.6	6.	-0.6	-5.	0.5	-0.6	0.	-0.5
1990	3	0.	-10.	-1.6	6.	-0.6	-5.	0.5	-0.6	0.	-0.5
1990	4	0.	-10.	-1.6	6.	-0.6	-5.	0.5	-0.6	0.	-0.5

		A.JRAUTO	A.KCA	A.MAUTO8	A.MNOIL8	A.M1PLUS	A.M2PLUS	A.PCDO	A.PCN	A.PCPI	A.PCS
1988	4	1.1	-1.	-1.2	4.	5.	-39.	0.1	0.4	0.6	0.5
1989	1	1.1	-0.5	-0.9	0.	5.	-39.	0.1	0.2	-0.1	0.5
1989	2	1.1	-0.5	-0.7	0.	5.	-39.	0.1	0.2	-0.1	0.5
1989	3	1.1	-0.5	-0.5	0.	5.	-39.	0.1	0.2	-0.1	0.5
1989	4	1.1	-0.5	-0.5	0.	5.	-39.	0.1	0.2	-0.1	0.5
1990	1	1.1	-0.5	-0.5	0.	5.	-39.	0.1	0.2	-0.1	0.5
1990	2	1.1	-0.5	-0.5	0.	5.	-39.	0.1	0.2	-0.1	0.5
1990	3	1.1	-0.5	-0.5	0.	5.	-39.	0.1	0.2	-0.1	0.5
1990	4	1.1	-0.5	-0.5	0.	5.	-39.	0.1	0.2	-0.1	0.5

		A.PGAS	A.PGFNCC	A.PGSL	A.PIPDAG	A.PIPDO	A.PIPDQ	A.PIRC	A.PPNF	A.PX	A.QMH77
1988	4	0.	0.	-0.1	-0.2	-0.5	0.15	-0.7	0.2	1.5	-0.2
1989	1	-1.	-0.3	-0.1	-0.2	-0.4	0.15	-0.5	0.15	0.75	-0.1
1989	2	0.7	-0.3	-0.1	-0.2	-0.4	0.15	-0.3	0.1	0.	0.
1989	3	0.	-0.3	-0.1	-0.2	-0.4	0.15	-0.1	0.1	0.	0.
1989	4	0.	-0.3	-0.1	-0.2	-0.4	0.15	-0.1	0.1	0.	0.
1990	1	0.	-0.3	-0.1	-0.2	-0.4	0.15	-0.1	0.1	0.	0.
1990	2	0.	-0.3	-0.1	-0.2	-0.4	0.15	-0.1	0.1	0.	0.
1990	3	0.	-0.3	-0.1	-0.2	-0.4	0.15	-0.1	0.1	0.	0.
1990	4	0.	-0.3	-0.1	-0.2	-0.4	0.15	-0.1	0.1	0.	0.

		A.RAAA	A.RCD	A.RFHA	A.RG5	A.RMORT	A.RTB	A.RUG	A.RUM	A.SERVE8	A.TCSL
1988	4	-0.4	0.	0.	0.15	-0.4	1.1	-0.07	-0.1	1.	0.3
1989	1	0.	0.1	0.	0.	-0.3	0.9	-0.07	0.	1.	0.3
1989	2	0.2	0.1	0.	-0.1	-0.2	0.65	-0.07	0.	1.	0.3
1989	3	0.2	0.1	0.	-0.1	-0.2	0.55	-0.07	0.	1.	0.3
1989	4	0.2	0.1	0.	-0.1	-0.2	0.55	-0.07	0.	1.	0.3
1990	1	0.2	0.1	0.	-0.1	-0.2	0.55	-0.13	0.	1.	0.3
1990	2	0.2	0.1	0.	-0.1	-0.2	0.55	-0.14	0.	1.	0.3
1990	3	0.2	0.1	0.	-0.1	-0.2	0.55	-0.02	0.	1.	0.3
1990	4	0.2	0.1	0.	-0.1	-0.2	0.55	-0.02	0.	1.	0.3

		A.TIBSL	A.TPSL	A.TSIF	A.TSIP	A.X82	A.YOL	A.YPDIV	A.YPINT	A.YPWS	A.YUNB
1988	4	-1.	1.	-1.	0.	-4.	-2.	0.8	2.	6.	0.2
1989	1	0.5	1.	-4.8	3.3	0.	-2.	0.8	2.	6.	0.2
1989	2	0.5	1.	-1.	0.	0.	-2.	0.8	2.	6.	0.2
1989	3	0.5	1.	-1.	0.	0.	-2.	0.8	2.	6.	0.2
1989	4	0.5	1.	-1.	0.	0.	-2.	0.8	2.	6.	0.2
1990	1	0.5	1.	-4.9	3.3	0.	-2.	0.8	2.	6.	0.2
1990	2	0.5	1.	-1.	0.	0.	-2.	0.8	2.	6.	0.2
1990	3	0.5	1.	-1.	0.	0.	-2.	0.8	2.	6.	0.2
1990	4	0.5	1.	-1.	0.	0.	-2.	0.8	2.	6.	0.2

SIMULATION OUTPUT BY DSET

EXOGENOUS VARIABLES

		AUTOSG	AUTOSIZE	BTRP	DAINC	DAINC1	DASTRIKE	DATE	DCDFE	DEMB1	DEX65
1988	3	0.102	0.666	31.1	-0.4	0.	0.	1988.3	1.	0.	0.
1988	4	0.13	0.66	31.8	0.	0.	0.	1988.4	1.	0.	0.
1989	1	0.13	0.66	32.5	0.	0.	0.	1989.1	1.	0.	0.
1989	2	0.13	0.66	33.2	0.	0.	0.	1989.2	1.	0.	0.
1989	3	0.13	0.66	33.9	0.	0.	0.	1989.3	1.	0.	0.
1989	4	0.13	0.66	34.6	0.	0.	0.	1989.4	1.	0.	0.
1990	1	0.13	0.66	35.3	0.	0.	0.	1990.1	1.	0.	0.
1990	2	0.13	0.66	36.	0.	0.	0.	1990.2	1.	0.	0.
1990	3	0.13	0.66	36.7	0.	0.	0.	1990.3	1.	0.	0.
1990	4	0.13	0.66	37.4	0.	0.	0.	1990.4	1.	0.	0.

		DFROFF	DFRZ1	DGDEBTP3	DGPAY	DINDEX	DJEXR	DJGPM	DJRAUTO	DM2P83.1	DM2P83.2
1988	3	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1988	4	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1989	1	0.	0.	1.	1.	1.	0.	1.	1.	0.	0.
1989	2	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1989	3	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1989	4	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1990	1	0.	0.	1.	1.	1.	0.	1.	1.	0.	0.
1990	2	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1990	3	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.
1990	4	0.	0.	1.	0.	1.	0.	1.	1.	0.	0.

		DM82DOCK	DOILCON	DOILDCON	DOPEC1	DOPEC2	DOPEC3	DPROP13	DRMORT	DSEAS1	DSEAS2
1988	3	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.
1988	4	0.	0.	1.	0.	0.	0.	0.	1.	-1.	-1.
1989	1	0.	0.	1.	0.	0.	0.	0.	1.	1.	0.
1989	2	0.	0.	1.	0.	0.	0.	0.	1.	0.	1.
1989	3	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.
1989	4	0.	0.	1.	0.	0.	0.	0.	1.	-1.	-1.
1990	1	0.	0.	1.	0.	0.	0.	0.	1.	1.	0.
1990	2	0.	0.	1.	0.	0.	0.	0.	1.	0.	1.
1990	3	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.
1990	4	0.	0.	1.	0.	0.	0.	0.	1.	-1.	-1.

		DSEAS3	DSPRD	DSW.TPF	DTCF	DTEX	DTIB	DTP	DTSI	DUBEXT	DUM75
1988	3	1.	0.	1.	45.63	0.	0.	-23.9	0.	0.	1.
1988	4	-1.	0.	1.	43.9	0.	0.	-1.1	0.	0.	1.
1989	1	0.	0.	1.	50.36	0.	0.	0.	3.4	0.	1.
1989	2	0.	0.	1.	50.93	0.	0.	-0.6	0.	0.	1.
1989	3	1.	0.	1.	50.87	0.	0.	-0.9	0.	0.	1.
1989	4	-1.	0.	1.	51.83	0.	0.	-0.6	0.	0.	1.
1990	1	0.	0.	1.	51.6	0.	0.	14.8	9.7	0.	1.
1990	2	0.	0.	1.	51.55	0.	0.	-0.7	0.	0.	1.
1990	3	1.	0.	1.	51.76	0.	0.	-0.7	0.	0.	1.
1990	4	-1.	0.	1.	52.17	0.	0.	-0.7	0.	0.	1.

		DVRALED	DVRA2	DYD82	DYFP83.3	DYFP83.4	D5467	D5864	D66	D674	D6873
1988	3	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.
1988	4	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.1
1989	1	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.25
1989	2	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.4
1989	3	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.5
1989	4	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.5
1990	1	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.5
1990	2	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.5
1990	3	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.5
1990	4	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.5

		D70.4	D7074	D711	D74.2	D763	D79.4	D85.3	EGOV	GAID	GDIVSL
1988	3	0.	0.	1.	0.	0.	0.	0.	19.258	109.4	8.4
1988	4	0.	0.	1.	0.	0.	0.	0.	19.332	111.	8.7
1989	1	0.	0.	1.	0.	0.	0.	0.	19.422	112.5	9.
1989	2	0.	0.	1.	0.	0.	0.	0.	19.497	114.5	9.3
1989	3	0.	0.	1.	0.	0.	0.	0.	19.573	116.5	9.6
1989	4	0.	0.	1.	0.	0.	0.	0.	19.63	114.5	9.9
1990	1	0.	0.	1.	0.	0.	0.	0.	19.823	112.5	10.2
1990	2	0.	0.	1.	0.	0.	0.	0.	20.037	111.	10.5
1990	3	0.	0.	1.	0.	0.	0.	0.	19.97	110.5	10.8
1990	4	0.	0.	1.	0.	0.	0.	0.	19.904	110.5	11.1

		GFCCC	GFD	GFO	GINTFF	GINTSL	GOLD	GSL	GTRF	GTROF	GTRSL
1988	3	-19.7	294.1	99.	28.8	-41.2	11.063	589.	11.6	415.1	127.5
1988	4	-12.	298.	101.	29.6	-41.9	11.063	599.75	11.	419.79	129.67
1989	1	-8.	304.	103.2	30.4	-42.7	11.063	610.69	11.	433.14	131.89
1989	2	-4.	307.	104.2	31.2	-43.5	11.063	621.83	11.	437.93	134.14
1989	3	0.	309.3	105.	32.	-44.3	11.063	633.18	11.	442.78	136.42
1989	4	4.	311.5	104.8	32.8	-45.2	11.063	641.98	11.	447.68	138.75
1990	1	4.	316.2	107.5	33.6	-46.1	11.063	650.96	11.	463.93	141.12
1990	2	4.	318.7	109.3	34.4	-47.	11.063	660.13	11.	469.1	141.53
1990	3	4.	321.	107.6	35.2	-47.9	11.063	669.5	11.	474.32	142.97
1990	4	4.	323.	106.	36.	-48.8	11.063	679.05	11.	479.6	144.46

		GWALDF	GWALDSL	HINT	HTRF	IINVFC	IINVFC82	IVA	JGPM	JICS	JUS.EUR
1988	3	0.	0.	100.	1.	-12.4	-13.9	-27.4	0.505	96.	0.846
1988	4	0.	0.	101.47	1.2	-19.	-19.	-20.	0.505	97.	0.85
1989	1	0.	0.	102.96	1.2	-10.	-10.	-20.	0.505	97.	0.892
1989	2	0.	0.	104.47	1.2	-5.	-5.	-20.	0.505	97.	0.927
1989	3	0.	0.	106.	1.2	0.2	0.2	-20.	0.505	97.	0.915
1989	4	0.	0.	107.56	1.2	5.	5.	-20.	0.505	97.	0.823
1990	1	0.	0.	109.13	1.2	5.	5.	-20.	0.505	97.	0.836
1990	2	0.	0.	110.74	1.2	5.	5.	-20.	0.505	97.	0.842
1990	3	0.	0.	112.36	1.2	5.	5.	-20.	0.505	97.	0.845
1990	4	0.	0.	114.01	1.2	5.	5.	-20.	0.505	97.	0.846

		KCCA	PAUTO	PAUTOD.F	PFARM	PFOREIGN	PHOUSEX	PINDEX	PMOIL	PNGAS	POTHRCRU
1988	3	45.3	116.8	0.884	115.3	108.393	90.2	108.7	45.486	69.8	133.5
1988	4	42.9	118.09	0.88	119.	105.	88.83	108.7	40.74	70.	136.09
1989	1	41.9	119.4	0.875	115.	105.78	91.75	108.7	43.65	70.	138.74
1989	2	40.9	120.72	0.87	119.	106.56	92.8	108.7	43.87	70.	141.43
1989	3	39.9	122.06	0.87	119.	107.48	94.26	108.7	44.19	70.	144.18
1989	4	38.9	123.55	0.865	120.17	108.54	92.82	108.7	44.52	70.	146.98
1990	1	37.9	125.07	0.86	121.36	109.61	95.88	108.7	44.96	70.	149.49
1990	2	36.9	126.61	0.86	122.55	110.69	96.97	108.7	45.4	70.	152.04
1990	3	36.7	128.16	0.855	123.76	111.78	98.5	108.7	45.85	70.	154.63
1990	4	36.7	129.73	0.855	124.98	112.88	97.	108.7	46.3	70.	157.27

		RBASE	RDIS	RLFSEC	SDR	SLCSF	SLCSSL	STAT	TCFR	TCO	TDEPRAG
1988	3	6.327	6.29	48.43	5.018	50.	-14.8	-2.7	0.34	18.637	0.375
1988	4	5.	6.5	48.4	5.018	50.	-15.	-6.	0.34	18.787	0.375
1989	1	5.	6.75	48.4	5.018	28.	-15.2	-6.	0.34	18.937	0.375
1989	2	5.	7.	48.4	5.018	26.2	-15.4	-6.	0.34	19.087	0.375
1989	3	5.	7.	48.4	5.018	17.4	-15.6	-6.	0.34	19.237	0.375
1989	4	5.	6.5	48.4	5.018	22.5	-15.8	-6.	0.34	19.387	0.375
1990	1	5.	6.5	48.4	5.018	22.5	-16.	-6.	0.34	19.537	0.375
1990	2	5.	6.5	48.4	5.018	22.5	-16.2	-6.	0.34	19.687	0.375
1990	3	5.	6.5	48.4	5.018	22.5	-16.4	-6.	0.34	19.837	0.375
1990	4	5.	6.5	48.4	5.018	22.5	-16.6	-6.	0.34	19.987	0.375

		TDEPRAU	TDEPRNC	TDEPRO	TDEPRQ	TIME	TITCR	TPNS	TSIFR	TSISL	WALD
1988	3	0.255	0.048	0.304	0.286	139.	0.	0.	0.15	51.4	0.
1988	4	0.255	0.048	0.304	0.286	140.	0.	0.	0.15	52.28	0.
1989	1	0.255	0.048	0.304	0.286	141.	0.	0.	0.15	53.17	0.
1989	2	0.255	0.048	0.304	0.286	142.	0.	0.	0.15	54.08	0.
1989	3	0.255	0.048	0.304	0.286	143.	0.	0.	0.15	55.	0.
1989	4	0.255	0.048	0.304	0.286	144.	0.	0.	0.15	55.94	0.
1990	1	0.255	0.048	0.304	0.286	145.	0.	0.	0.153	56.89	0.
1990	2	0.255	0.048	0.304	0.286	146.	0.	0.	0.153	57.86	0.
1990	3	0.255	0.048	0.304	0.286	147.	0.	0.	0.153	58.85	0.
1990	4	0.255	0.048	0.304	0.286	148.	0.	0.	0.153	59.85	0.

		WCEIL	WUSMIN	XAUTO82	YGWS	YPRENT
1988	3	45.	3.35	6.7	449.	20.
1988	4	45.	3.35	6.78	454.25	20.29
1989	1	48.	3.35	6.87	465.44	20.59
1989	2	48.	3.35	6.95	471.81	20.89
1989	3	48.	3.35	7.03	478.27	21.2
1989	4	48.	3.35	7.12	484.59	21.51
1990	1	51.	3.35	7.21	496.23	21.83
1990	2	51.	3.35	7.3	504.64	22.15
1990	3	51.	3.35	7.39	509.78	22.47
1990	4	51.	3.35	7.48	515.02	22.8

SIMULATION OUTPUT BY DSET

ENDOGENOUS VARIABLES

		AUTOS	AUTOSB	AUTOSC	AUTOSD	AUTOSF	C	CDAN82	CDAO82	CDA82	CDFE82
1988	3	10.66	3.712	6.846	7.603	3.057	NA	85.	94.5	179.5	161.
1988	4	10.64	3.683	6.827	7.626	3.014	3305.38	85.3	94.634	179.935	163.644
1989	1	10.499	3.671	6.699	7.513	2.986	3363.86	84.354	93.968	178.322	165.834
1989	2	10.409	3.595	6.683	7.431	2.977	3420.73	84.606	93.052	177.658	167.667
1989	3	10.358	3.591	6.637	7.364	2.994	3479.41	84.527	92.139	176.666	169.064
1989	4	10.346	3.56	6.656	7.332	3.015	3540.1	85.151	91.637	176.787	170.093
1990	1	10.347	3.57	6.647	7.31	3.037	3601.5	85.463	91.67	177.132	171.094
1990	2	10.6	3.615	6.855	7.448	3.152	3670.48	88.165	92.171	180.335	172.279
1990	3	10.676	3.651	6.895	7.472	3.204	3738.51	89.024	92.853	181.877	173.338
1990	4	10.787	3.676	6.981	7.511	3.276	3807.85	90.396	93.358	183.753	174.14

		CDO82	CN82	CS82	C82	DISC	FDCUR	FS	FSDP	FSDP82	FSMF82
1988	3	70.6	901.7	1288.5	2601.3	NA	3.714	4856.6	NA	NA	NA
1988	4	70.42	903.222	1298.97	2616.19	1.021	3.073	4943.92	5022.25	4097.56	1150.
1989	1	70.221	905.241	1308.81	2628.43	1.021	3.235	5031.27	5111.97	4124.68	1167.22
1989	2	70.036	908.015	1318.05	2641.42	1.021	3.362	5117.76	5196.57	4150.72	1182.8
1989	3	69.809	909.965	1326.44	2651.94	1.021	3.423	5204.61	5284.47	4173.13	1194.96
1989	4	69.606	912.1	1334.68	2663.26	1.02	3.449	5285.51	5369.56	4192.68	1204.17
1990	1	69.309	913.093	1342.52	2673.15	1.02	3.353	5375.	5460.07	4209.16	1210.46
1990	2	69.195	915.125	1350.61	2687.54	1.02	3.414	5473.46	5557.37	4231.73	1221.7
1990	3	69.099	917.138	1358.46	2699.92	1.021	3.469	5568.84	5649.67	4248.46	1234.15
1990	4	69.025	919.175	1366.16	2712.25	1.02	3.521	5666.33	5742.43	4264.16	1247.65

		FSNMF82	FS82	GAUTO82	GCBDD	GDEBTM	GDEBTP	GFCCC82	GFND	GF82	GINTF
1988	3	NA	3973.5	110.4	26.2	1830.	1810.	-13.6	79.3	NA	152.8
1988	4	78.098	4002.97	112.784	25.078	1892.2	1857.71	-12.	89.	330.042	155.265
1989	1	77.693	4034.75	112.427	25.165	1930.14	1898.67	-8.	95.2	335.389	158.108
1989	2	76.442	4064.24	111.293	25.341	1954.1	1929.24	-4.	100.2	340.848	160.622
1989	3	75.636	4088.77	110.675	25.245	1984.23	1956.86	0.	105.	344.906	162.855
1989	4	74.575	4110.2	110.57	24.298	2054.74	1997.3	4.	108.8	348.28	165.405
1990	1	76.916	4131.15	110.712	24.527	2088.63	2033.03	4.	111.5	348.8	167.938
1990	2	80.571	4160.	113.476	24.82	2104.41	2053.62	4.	113.3	349.693	169.878
1990	3	80.471	4184.43	114.989	24.819	2118.98	2074.32	4.	111.6	347.581	171.572
1990	4	79.224	4208.96	116.232	23.95	2154.44	2104.65	4.	110.	345.344	173.557

		GNP	GNPERM82	GNP82	GSL82	GTRP	G82	HASSET	HOUSCOMP	HOUSES	HOUSEX
1988	3	4899.5	3962.09	4007.3	NA	NA	NA	NA	NA	1454.	3657.
1988	4	4968.84	3990.62	4026.3	458.258	563.356	788.3	-0.018	1459.6	1461.06	3752.85
1989	1	5060.36	4018.42	4061.93	460.773	579.26	796.162	-0.032	1462.29	1465.79	3761.67
1989	2	5155.16	4048.43	4098.93	463.36	586.448	804.207	-0.037	1459.39	1451.33	3744.8
1989	3	5243.27	4077.15	4124.34	465.476	593.856	810.382	-0.036	1445.27	1433.03	3721.27
1989	4	5327.67	4105.22	4148.66	465.755	601.548	814.034	-0.035	1430.53	1422.49	3706.63
1990	1	5416.45	4131.75	4168.55	465.484	620.77	814.284	-0.035	1431.21	1441.18	3730.97
1990	2	5512.61	4157.35	4194.96	465.575	626.897	815.268	-0.035	1454.3	1477.75	3780.71
1990	3	5606.98	4181.11	4218.11	465.675	634.238	813.256	-0.036	1482.66	1498.65	3811.97
1990	4	5703.15	4204.48	4241.12	465.779	641.717	811.123	-0.035	1499.43	1505.65	3826.01

		IBF	IBFNC	IBFNC82	IBFPD	IBFPD82	IBF82	IINV	IINVA	IINVA82	IINVF
1988	3	493.9	NA	125.5	NA	370.3	495.7	NA	1.2	-0.3	7.3
1988	4	501.463	144.37	125.984	357.094	376.505	502.489	24.919	1.669	1.517	-7.
1989	1	508.143	145.577	126.366	362.566	382.373	508.739	29.089	2.44	2.194	-2.
1989	2	515.319	147.78	127.184	367.539	386.785	513.969	37.395	1.747	1.554	-1.
1989	3	524.53	151.024	128.615	373.506	391.774	520.388	38.655	1.585	1.394	0.2
1989	4	532.439	154.18	129.882	378.259	395.484	525.366	42.157	1.337	1.16	1.
1990	1	540.628	157.173	130.898	383.455	399.35	530.248	41.444	1.308	1.12	1.
1990	2	548.706	160.133	131.786	388.573	402.754	534.54	39.148	0.999	0.844	1.
1990	3	556.872	163.226	132.718	393.646	405.846	538.564	38.144	1.711	1.427	1.
1990	4	565.326	166.485	133.738	398.841	408.903	542.641	36.816	1.596	1.313	1.

		IINVF82	IINVNA82	IINVO	IINVO82	IINV82	IPDAG82	IPDAU82	IPDONA82	IPDO82	IPDQ82
1988	3	-0.3	34.1	34.4	34.4	33.8	10.63	42.8	238.549	281.349	78.3
1988	4	-7.	21.81	30.25	28.81	23.327	11.793	42.699	241.627	284.326	80.387
1989	1	-2.	24.987	28.649	26.987	27.181	13.586	42.799	243.985	286.784	82.003
1989	2	-1.	33.142	36.648	34.142	34.696	14.866	42.239	246.168	288.407	83.512
1989	3	0.2	34.176	36.871	33.976	35.57	15.527	42.382	248.797	291.178	85.069
1989	4	1.	37.289	39.82	36.289	38.45	15.704	42.228	251.308	293.536	86.243
1990	1	1.	36.277	39.136	35.277	37.397	15.829	42.507	253.757	296.264	87.257
1990	2	1.	34.118	37.149	33.118	34.962	16.017	43.193	255.369	298.562	88.175
1990	3	1.	32.244	35.433	31.244	33.67	16.237	43.766	256.752	300.517	89.093
1990	4	1.	30.845	34.22	29.845	32.158	16.45	44.224	258.174	302.398	90.056

		IRC	IRC82	JCAP	JCMH	JCMHD	JCU	JEXR	JIPM	JRAUTO	KCA
1988	3	227.6	190.2	171.5	199.3	159.147	0.838	97.58	143.7	77.9	508.
1988	4	228.671	190.588	172.667	201.724	159.663	0.84	93.419	145.12	80.232	514.449
1989	1	230.095	191.35	173.848	204.266	159.608	0.843	92.615	146.519	81.436	521.134
1989	2	231.51	191.134	175.041	206.734	159.636	0.849	92.291	148.551	82.281	529.245
1989	3	233.069	190.43	176.255	209.378	159.584	0.852	91.963	150.156	82.763	538.256
1989	4	234.764	190.031	177.489	212.108	159.571	0.854	91.415	151.503	82.392	547.44
1990	1	239.307	191.494	178.732	215.552	159.99	0.853	90.778	152.477	80.717	557.065
1990	2	246.081	194.398	179.98	218.495	159.983	0.853	90.114	153.436	79.88	567.223
1990	3	252.207	196.731	181.228	221.53	159.987	0.853	89.47	154.534	79.598	577.823
1990	4	257.226	198.149	182.48	224.664	160.024	0.853	88.871	155.627	79.585	588.76

		KCAC	M	MAUTO82	MBASE	MNOIL82	MOIL82	MULT	M1PLUS	M2PLUS	M82
1988	3	317.	NA	32.7	272.456	514.4	87.5	NA	1215.3	3299.1	601.9
1988	4	321.283	619.694	32.434	275.8	519.445	88.	13.746	1221.54	3345.89	607.445
1989	1	325.612	638.068	32.535	279.185	525.792	86.	13.739	1230.88	3396.1	611.792
1989	2	330.885	652.958	32.861	282.611	532.85	86.	13.712	1242.95	3447.69	618.85
1989	3	336.736	669.254	33.387	286.08	540.119	86.	13.721	1259.37	3502.85	626.119
1989	4	342.714	688.699	33.875	289.591	547.792	86.	13.842	1285.34	3569.49	633.792
1990	1	348.982	706.655	34.326	293.145	553.221	86.	13.837	1312.17	3637.5	639.221
1990	2	355.605	723.369	34.961	296.743	557.117	86.	13.814	1333.22	3704.66	643.117
1990	3	362.521	738.872	35.544	300.385	559.842	86.	13.791	1354.26	3773.44	645.842
1990	4	369.658	753.267	36.171	304.072	561.7	86.	13.813	1377.13	3848.11	647.7

		NETXA82	NIASF	NIASSL	NINT	PC	PCDA	PCDFE	PCDO	PCN	PCPI
1988	3	-26.	-147.4	54.2	396.5	125.23	117.549	99.068	117.705	117.29	119.1
1988	4	-25.654	-157.875	51.792	408.652	126.343	118.803	99.445	118.747	117.649	120.784
1989	1	-25.665	-140.902	51.475	414.778	127.98	119.814	99.677	119.92	119.469	122.202
1989	2	-25.911	-135.822	53.474	420.145	129.503	121.102	99.927	121.049	120.847	123.653
1989	3	-26.357	-129.582	54.623	427.669	131.202	122.533	100.339	122.232	122.418	125.314
1989	4	-26.755	-128.406	55.329	429.813	132.923	123.921	100.79	123.549	123.92	126.941
1990	1	-27.116	-113.008	55.47	432.07	134.729	125.389	101.268	124.937	125.533	128.569
1990	2	-27.661	-105.876	58.744	440.388	136.574	126.886	101.781	126.392	127.178	130.271
1990	3	-28.154	-97.06	61.689	451.415	138.467	128.396	102.314	127.898	128.849	132.039
1990	4	-28.691	-88.249	65.1	461.221	140.394	129.923	102.851	129.435	130.529	133.85

		PCRUDE	PCS	PG	PGAS	PGFNCCC	PGNP	PGSL	PHOUSN.E	PIBF	PIINVA
1988	3	83.9	135.537	123.211	82.8	115.72	122.264	129.451	128.9	99.637	-400.
1988	4	82.128	137.234	125.174	76.158	116.652	123.41	130.876	123.	99.796	110.
1989	1	85.611	138.997	126.845	82.293	118.582	124.58	132.536	123.	99.883	111.22
1989	2	86.182	140.811	127.956	82.257	119.241	125.768	134.2	123.	100.263	112.45
1989	3	87.689	142.79	129.258	83.569	120.12	127.13	136.028	123.	100.796	113.69
1989	4	88.973	144.853	130.496	84.506	120.919	128.419	137.836	123.	101.346	115.22
1990	1	90.384	146.985	132.467	85.735	122.883	129.936	139.846	123.	101.958	116.78
1990	2	91.789	149.193	133.96	86.891	123.809	131.41	141.788	123.	102.65	118.35
1990	3	93.243	151.461	135.517	88.099	124.745	132.927	143.77	123.	103.399	119.95
1990	4	94.719	153.78	137.1	89.306	125.68	134.473	145.788	123.	104.18	121.56

		PIINVO	PINC	PIPD	PIPDAG	PIPDO	PIPDQ	PIRC	PM	PMNOIL	POIL
1988	3	100.	114.183	94.653	117.24	86.95	119.35	119.664	101.545	NA	44.6
1988	4	105.	114.594	94.844	117.518	86.743	120.171	119.982	102.016	112.397	41.095
1989	1	106.16	115.203	94.82	117.885	86.223	121.064	120.249	104.295	114.214	44.904
1989	2	107.34	116.194	95.024	118.376	85.992	122.059	121.125	105.512	115.46	44.246
1989	3	108.52	117.424	95.337	119.101	85.915	123.249	122.391	106.889	116.872	44.894
1989	4	109.73	118.708	95.645	119.936	85.843	124.582	123.54	108.663	118.733	45.144
1990	1	110.94	120.073	96.02	120.898	85.839	126.073	124.968	110.549	120.746	45.631
1990	2	112.17	121.51	96.479	121.957	85.89	127.706	126.586	112.479	122.833	46.06
1990	3	113.41	122.987	96.994	123.074	85.962	129.452	128.199	114.405	124.936	46.522
1990	4	114.66	124.486	97.539	124.217	86.04	131.281	129.815	116.299	127.016	46.976

		PPNF	PX	QHT1	QMHT	QMH77	RAAA	RAUTOSF	RBAR	RCD	RCP
1988	3	120.3	103.807	NA	NA	110.5	9.96	28.68	NA	8.17	8.1
1988	4	121.352	105.56	0.004	0.011	110.394	9.476	28.327	9.206	8.453	8.336
1989	1	122.002	106.803	0.005	0.011	110.71	9.442	28.44	9.178	8.447	8.314
1989	2	123.097	107.85	0.006	0.012	111.208	9.569	28.605	9.088	8.549	8.398
1989	3	124.521	108.793	0.006	0.014	111.599	9.592	28.908	9.074	8.251	8.114
1989	4	125.724	109.673	0.007	0.016	111.973	9.437	29.138	8.844	7.316	7.237
1990	1	127.03	110.758	0.007	0.018	112.299	9.458	29.353	8.598	7.167	7.095
1990	2	128.39	111.916	0.007	0.02	112.724	9.485	29.738	8.58	7.367	7.28
1990	3	129.769	113.101	0.007	0.022	113.112	9.514	30.007	8.661	7.495	7.398
1990	4	131.157	114.289	0.007	0.024	113.505	9.556	30.372	8.704	7.491	7.394

		RCPCD	REM	REURDR3	RFHA	RG5	RHSAVE	RMORT	RM2PLUS	RPPERM	RTB
1988	3	8.17	95.35	8.29	10.68	8.76	4.	10.5	4.231	NA	7.01
1988	4	8.453	95.366	8.687	10.236	8.431	4.313	10.243	5.794	1.089	7.384
1989	1	8.447	95.344	8.416	10.327	8.461	4.394	10.241	6.14	1.049	7.506
1989	2	8.549	95.38	8.011	10.502	8.575	4.37	10.483	6.216	1.092	7.427
1989	3	8.251	95.376	7.725	10.52	8.537	4.196	10.569	6.555	1.104	7.067
1989	4	7.316	95.32	7.614	10.285	8.031	3.995	10.412	7.829	1.154	6.269
1990	1	7.167	95.213	7.581	10.298	8.052	3.569	10.217	7.841	1.192	6.34
1990	2	7.367	95.124	7.582	10.289	8.146	3.317	10.215	7.592	1.254	6.385
1990	3	7.495	95.033	7.598	10.32	8.245	3.105	10.244	7.635	1.276	6.418
1990	4	7.491	94.941	7.627	10.366	8.152	2.883	10.293	8.153	1.308	6.45

		RUG	RUM	SERVE82	SINVA82	SINVF82	SINVNA82	SINVO82	SINV82	TC	TCF
1988	3	5.49	4.65	1859.3	129.899	299.6	NA	3238.4	3668.	NA	115.5
1988	4	5.464	4.634	1871.65	131.416	292.6	3559.81	3267.21	3691.33	142.144	109.906
1989	1	5.472	4.656	1884.6	133.61	290.6	3584.8	3294.2	3718.51	146.299	114.695
1989	2	5.436	4.62	1896.98	135.164	289.6	3617.94	3328.34	3753.2	151.924	119.201
1989	3	5.43	4.624	1908.21	136.557	289.8	3652.11	3362.31	3788.77	152.533	119.334
1989	4	5.463	4.68	1919.37	137.718	290.8	3689.4	3398.6	3827.22	157.706	123.31
1990	1	5.473	4.787	1930.68	138.837	291.8	3725.68	3433.88	3864.62	158.543	123.51
1990	2	5.465	4.876	1942.61	139.682	292.8	3759.8	3467.	3899.58	160.455	124.658
1990	3	5.584	4.967	1952.67	141.108	293.8	3792.04	3498.24	3933.25	161.888	125.463
1990	4	5.697	5.059	1962.91	142.421	294.8	3822.89	3528.09	3965.41	163.865	126.748

		TCSL	TIB	TIBF	TIBSL	TP	TPF	TPSL	TSI	TSIF	TSIP
1988	3	33.1	391.3	57.2	334.2	587.1	409.	178.2	448.4	397.	196.7
1988	4	32.238	395.545	57.569	337.976	601.875	419.757	182.118	455.125	402.845	199.311
1989	1	31.603	401.965	58.081	343.885	616.042	430.045	185.997	465.625	412.456	207.007
1989	2	32.723	408.752	58.614	350.138	629.313	439.51	189.803	472.762	418.682	209.829
1989	3	33.199	415.701	59.104	356.597	640.314	446.888	193.426	479.584	424.584	212.484
1989	4	34.395	422.815	59.57	363.245	651.803	454.725	197.078	486.432	430.492	215.138
1990	1	35.034	430.049	60.064	369.984	679.412	478.571	200.841	503.026	446.136	225.77
1990	2	35.796	437.894	60.606	377.287	692.737	487.977	204.761	510.488	452.628	228.727
1990	3	36.425	445.781	61.137	384.645	705.599	496.959	208.639	517.672	458.822	231.532
1990	4	37.117	453.787	61.679	392.109	718.522	505.988	212.535	525.	465.15	234.393

		UCKIPDAG	UCKNC	UCKPDQ	ULC77	X	X82	YCBT	YCP	YD	YD82
1988	3	NA	18.224	NA	180.4	NA	507.	322.1	340.	3498.9	2794.
1988	4	0.258	17.735	28.124	182.731	541.361	512.849	306.082	328.982	3561.67	2819.05
1989	1	0.268	17.79	27.844	184.505	557.366	521.864	293.104	315.004	3627.4	2834.35
1989	2	0.261	18.09	27.875	185.899	574.152	532.362	302.7	323.6	3687.53	2847.44
1989	3	0.263	18.309	28.432	187.616	589.392	541.757	304.043	323.943	3743.7	2853.38
1989	4	0.261	18.325	28.141	189.428	604.642	551.313	314.49	333.39	3800.71	2859.32
1990	1	0.26	18.561	28.385	191.945	621.579	561.204	317.856	335.756	3849.19	2856.99
1990	2	0.26	18.816	28.126	193.831	639.462	571.377	322.753	339.653	3912.18	2864.52
1990	3	0.26	19.08	28.317	195.849	658.042	581.816	325.96	342.66	3975.52	2871.09
1990	4	0.261	19.365	28.884	197.933	677.165	592.5	329.919	346.62	4039.51	2877.27

		YFP	YNFP	YOL	YP	YPADJ	YPADJ82	YPDIV	YPERM82	YPINT	YPWS
1988	3	29.	290.2	219.5	4086.	NA	NA	97.3	2305.58	579.3	2011.
1988	4	34.026	292.81	222.339	4163.55	3799.5	3007.29	99.219	2330.3	593.887	2050.89
1989	1	33.198	297.097	225.217	4243.43	3871.18	3024.84	100.79	2350.05	602.747	2093.62
1989	2	33.01	304.157	228.114	4316.84	3940.22	3042.56	102.413	2366.07	610.537	2136.1
1989	3	29.746	308.708	230.914	4384.01	4002.64	3050.74	104.025	2379.1	620.225	2175.66
1989	4	31.205	314.095	233.704	4452.52	4066.11	3058.98	105.714	2391.07	624.779	2215.92
1990	1	31.303	319.599	236.491	4528.6	4133.6	3068.09	107.425	2395.41	629.438	2256.
1990	2	31.19	325.458	239.406	4604.91	4206.74	3080.2	109.167	2399.73	639.606	2299.14
1990	3	31.08	330.748	242.393	4681.12	4278.41	3089.83	110.917	2404.62	652.247	2342.1
1990	4	31.051	336.207	245.471	4758.04	4350.7	3098.92	112.679	2409.55	663.988	2386.11

		YT82	YUNB
1988	3	44.197	13.7
1988	4	42.848	13.896
1989	1	31.684	14.23
1989	2	28.529	14.378
1989	3	21.649	14.657
1989	4	15.697	15.118
1990	1	0.827	15.72
1990	2	5.776	16.267
1990	3	8.426	16.948
1990	4	10.636	17.657

SIMULATION OUTPUT BY DSET

PERCENT CHANGES AT ANNUAL RATES

		AUTOS	AUTOSB	AUTOSC	AUTOSD	AUTOSF	C	CDAN82	CDAO82	CDA82	CDFE82
1988	3	1.63	7.086	0.527	7.142	-10.618	NA	5.348	-2.5	1.122	-1.963
1988	4	-0.743	-3.083	-1.1	1.222	-5.507	NA	1.421	0.57	0.972	6.732
1989	1	-5.196	-1.349	-7.32	-5.792	-3.676	7.266	-4.367	-2.786	-3.538	5.461
1989	2	-3.407	-7.953	-0.913	-4.295	-1.146	6.936	1.201	-3.844	-1.482	4.495
1989	3	-1.913	-0.463	-2.723	-3.569	2.314	7.04	-0.372	-3.867	-2.214	3.375
1989	4	-0.466	-3.433	1.158	-1.747	2.737	7.162	2.985	-2.163	0.275	2.457
1990	1	0.034	1.179	-0.573	-1.173	3.016	7.119	1.474	0.143	0.782	2.373
1990	2	10.157	5.149	13.129	7.776	16.05	7.884	13.259	2.204	7.431	2.799
1990	3	2.88	3.968	2.364	1.311	6.659	7.622	3.957	2.993	3.463	2.483
1990	4	4.22	2.748	5.088	2.065	9.381	7.628	6.304	2.193	4.19	1.862

		CDO82	CN82	CS82	C82	DISC	FDCUR	FS	FSDP	FSDP82	FSMF82
1988	3	4.664	3.675	4.368	3.503	NA	-58.272	6.557	NA	NA	NA
1988	4	-1.014	0.676	3.29	2.309	NA	-53.137	7.388	NA	NA	NA
1989	1	-1.128	0.897	3.066	1.884	0.029	22.865	7.256	7.339	2.673	6.125
1989	2	-1.047	1.231	2.852	1.991	0.112	16.657	7.055	6.785	2.55	5.448
1989	3	-1.294	0.861	2.57	1.602	-0.038	7.462	6.962	6.94	2.176	4.174
1989	4	-1.158	0.942	2.508	1.719	-0.495	2.987	6.364	6.598	1.887	3.118
1990	1	-1.697	0.436	2.371	1.492	0.021	-10.638	6.946	6.915	1.582	2.105
1990	2	-0.651	0.893	2.431	2.171	0.092	7.427	7.531	7.32	2.162	3.766
1990	3	-0.557	0.883	2.348	1.854	0.097	6.709	7.154	6.811	1.59	4.141
1990	4	-0.429	0.891	2.285	1.84	-0.091	6.078	7.189	6.731	1.486	4.446

		FSNMF82	FS82	GAUTO82	GCBDD	GDEBTM	GDEBTP	GFCCC82	GFND	GF82	GINTF
1988	3	NA	2.411	-2.847	77.46	0.28	5.744	-57.054	-18.261	NA	1.853
1988	4	NA	2.999	8.92	-16.055	14.304	10.968	-39.387	58.66	NA	6.611
1989	1	-2.058	3.214	-1.258	1.384	8.265	9.115	-80.247	30.914	6.64	7.528
1989	2	-6.289	2.955	-3.975	2.83	5.057	6.597	-93.75	22.722	6.67	6.513
1989	3	-4.153	2.436	-2.202	-1.51	6.312	5.85	-100.	20.583	4.848	5.678
1989	4	-5.49	2.113	-0.379	-14.179	14.99	8.526	NA	15.281	3.97	6.411
1990	1	13.159	2.054	0.514	3.827	6.762	7.349	0.	10.302	0.599	6.268
1990	2	20.403	2.822	10.365	4.862	3.056	4.114	0.	6.615	1.027	4.7
1990	3	-0.495	2.37	5.441	-0.014	2.799	4.091	0.	-5.868	-2.394	4.049
1990	4	-6.055	2.365	4.396	-13.285	6.862	5.978	0.	-5.613	-2.55	4.708

		GNP	GNPERM82	GNP82	GSL82	GTRP	G82	HASSET	HOUSCOMP	HOUSES	HOUSEX
1988	3	6.426	3.483	2.236	NA	NA	NA	NA	NA	-7.095	1.546
1988	4	5.782	2.912	1.909	NA	NA	NA	NA	NA	1.957	10.903
1989	1	7.573	2.815	3.587	2.213	11.779	4.049	862.911	0.741	1.3	0.943
1989	2	7.707	3.021	3.694	2.264	5.056	4.103	89.024	-0.793	-3.889	-1.781
1989	3	7.014	2.868	2.502	1.84	5.149	3.107	-10.403	-3.814	-4.949	-2.49
1989	4	6.596	2.782	2.379	0.239	5.282	1.815	-11.953	-4.016	-2.91	-1.564
1990	1	6.833	2.61	1.931	-0.233	13.407	0.122	-4.643	0.188	5.362	2.652
1990	2	7.293	2.501	2.559	0.078	4.007	0.484	6.68	6.614	10.54	5.441
1990	3	7.025	2.306	2.225	0.086	4.766	-0.983	2.025	8.03	5.78	3.348
1990	4	7.038	2.254	2.2	0.089	4.8	-1.045	-8.932	4.601	1.881	1.48

		IBF	IBFNC	IBFNC82	IBFPD	IBFPD82	IBF82	IINV	IINVA	IINVA82	IINVF
1988	3	5.096	NA	1.609	NA	5.82	4.563	NA	-98.448	-99.987	-77.506
1988	4	6.267	NA	1.55	NA	6.873	5.591	NA	273.823	6.53E+04	-15.453
1989	1	5.435	3.386	1.22	6.272	6.38	5.069	85.694	357.341	337.601	-99.334
1989	2	5.769	6.193	2.615	5.6	4.696	4.176	173.118	-73.715	-74.846	-93.75
1989	3	7.344	9.075	4.575	6.654	5.26	5.09	14.171	-32.337	-35.241	-99.84
1989	4	6.169	8.623	4.001	5.187	3.841	3.881	41.464	-49.301	-51.94	6.24E+04
1990	1	6.295	7.993	3.164	5.609	3.968	3.769	-6.599	-8.56	-13.349	0.
1990	2	6.112	7.749	2.742	5.446	3.454	3.277	-20.385	-65.895	-67.669	0.
1990	3	6.087	7.953	2.858	5.325	3.106	3.045	-9.864	759.931	714.962	0.
1990	4	6.211	8.227	3.109	5.384	3.047	3.062	-13.217	-24.276	-28.209	0.

		IINVF82	IINVNA82	IINVO	IINVO82	IINV82	IPDAG82	IPDAU82	IPDONA82	IPDO82	IPDQ82
1988	3	-99.999	21.195	79.973	155.833	-15.944	8.934	8.872	2.564	3.493	14.028
1988	4	2.96E+07	-83.266	-40.201	-50.803	-77.314	51.485	-0.941	5.262	4.3	11.093
1989	1	-99.334	72.271	-19.552	-23.011	84.336	76.16	0.938	3.961	3.503	8.288
1989	2	-93.75	209.524	167.777	156.196	165.509	43.336	-5.126	3.627	2.284	7.566
1989	3	-99.84	13.07	2.449	-1.935	10.459	18.994	1.355	4.34	3.898	7.671
1989	4	6.24E+04	41.724	36.044	30.142	36.535	4.655	-1.441	4.099	3.278	5.635
1990	1	0.	-10.424	-6.694	-10.699	-10.513	3.226	2.665	3.954	3.768	4.786
1990	2	0.	-21.761	-18.819	-22.321	-23.602	4.836	6.616	2.566	3.139	4.273
1990	3	0.	-20.231	-17.228	-20.79	-13.985	5.587	5.406	2.183	2.645	4.229
1990	4	0.	-16.256	-13.009	-16.741	-16.79	5.352	4.258	2.233	2.526	4.395

		IRC	IRC82	JCAP	JCMH	JCMHD	JCU	JEXR	JIPM	JRAUTO	KCA
1988	3	1.956	1.272	3.09	5.607	1.093	2.915	35.639	6.065	10.964	3.87
1988	4	1.896	0.819	2.75	4.953	1.303	1.18	-15.998	4.012	12.522	5.175
1989	1	2.514	1.607	2.764	5.137	-0.138	1.117	-3.395	3.912	6.139	5.3
1989	2	2.482	-0.45	2.773	4.922	0.071	2.811	-1.392	5.662	4.218	6.372
1989	3	2.72	-1.465	2.804	5.213	-0.132	1.544	-1.414	4.391	2.36	6.986
1989	4	2.941	-0.835	2.828	5.318	-0.031	0.787	-2.365	3.638	-1.78	7.001
1990	1	7.967	3.115	2.832	6.656	1.053	-0.23	-2.76	2.596	-7.888	7.22
1990	2	11.813	6.205	2.82	5.572	-0.018	-0.274	-2.892	2.538	-4.085	7.495
1990	3	10.334	4.887	2.804	5.673	0.01	0.087	-2.828	2.894	-1.405	7.686
1990	4	8.201	2.914	2.791	5.781	0.093	0.065	-2.653	2.859	-0.064	7.789

		KCAC	M	MAUTO82	MBASE	MNOIL82	MOIL82	MULT	M1PLUS	M2PLUS	M82
1988	3	4.808	NA	-7.015	6.327	8.426	10.205	NA	3.291	4.23	8.683
1988	4	5.514	NA	-3.21	5.	3.981	2.305	NA	2.069	5.794	3.736
1989	1	5.5	12.398	1.242	5.	4.978	-8.786	-0.204	3.093	6.14	2.893
1989	2	6.635	9.666	4.071	5.	5.478	0.	-0.789	3.982	6.216	4.695
1989	3	7.264	10.362	6.562	5.	5.569	0.	0.266	5.388	6.555	4.781
1989	4	7.292	12.138	5.976	5.	5.804	0.	3.566	8.507	7.829	4.993
1990	1	7.518	10.843	5.434	5.	4.023	0.	-0.148	8.615	7.841	3.47
1990	2	7.81	9.802	7.602	5.	2.847	0.	-0.649	6.574	7.592	2.46
1990	3	8.008	8.852	6.844	5.	1.97	0.	-0.682	6.461	7.635	1.705
1990	4	8.111	8.023	7.24	5.	1.334	0.	0.646	6.93	8.153	1.155

		NETXA82	NIASF	NIASSL	NINT	PC	PCDA	PCDFE	PCDO	PCN	PCPI
1988	3	-7.336	49.509	-13.493	17.787	4.464	3.323	2.003	3.269	4.512	5.559
1988	4	-5.212	31.601	-16.62	12.834	3.603	4.334	1.532	3.588	1.231	5.776
1989	1	0.16	-36.552	-2.427	6.133	5.282	3.45	0.933	4.01	6.333	4.78
1989	2	3.892	-13.66	16.462	5.277	4.847	4.368	1.009	3.82	4.692	4.832
1989	3	7.07	-17.15	8.875	7.358	5.352	4.809	1.66	3.967	5.301	5.484
1989	4	6.178	-3.581	5.267	2.02	5.351	4.609	1.809	4.378	5.001	5.293
1990	1	5.509	-40.007	1.024	2.116	5.544	4.823	1.91	4.57	5.308	5.23
1990	2	8.278	-22.953	25.788	7.925	5.591	4.863	2.043	4.741	5.346	5.402
1990	3	7.328	-29.373	21.612	10.398	5.662	4.845	2.108	4.851	5.357	5.539
1990	4	7.845	-31.658	24.017	8.976	5.683	4.842	2.116	4.895	5.319	5.6

		PCRUDE	PCS	PG	PGAS	PGFNCCC	PGNP	PGSL	PHOUSN.E	PIBF	PIINVA
1988	3	-14.692	4.677	1.729	8.117	4.243	4.096	4.191	13.439	0.511	1.17E+04
1988	4	-8.186	5.101	6.528	-28.429	3.261	3.801	4.476	-17.09	0.639	-99.428
1989	1	18.075	5.239	5.445	36.33	6.785	3.848	5.17	0.	0.349	4.51
1989	2	2.695	5.323	3.55	-0.175	2.239	3.87	5.118	0.	1.529	4.497
1989	3	7.182	5.74	4.132	6.533	2.98	4.401	5.561	0.	2.144	4.484
1989	4	5.984	5.906	3.886	4.562	2.688	4.118	5.424	0.	2.202	5.492
1990	1	6.498	6.02	6.181	5.947	6.656	4.809	5.96	0.	2.435	5.526
1990	2	6.363	6.144	4.583	5.502	3.05	4.615	5.672	0.	2.744	5.487
1990	3	6.489	6.22	4.732	5.676	3.057	4.695	5.708	0.	2.952	5.518
1990	4	6.482	6.266	4.755	5.592	3.031	4.734	5.734	0.	3.055	5.478

		PIINVO	PINC	PIPD	PIPDAG	PIPDO	PIPDQ	PIRC	PM	PMNOIL	POIL
1988	3	-29.652	1.21	0.089	-0.136	-1.368	2.242	0.678	0.743	NA	-38.678
1988	4	21.55	1.448	0.811	0.953	-0.947	2.78	1.066	1.869	NA	-27.92
1989	1	4.492	2.14	-0.102	1.252	-2.377	3.007	0.892	9.238	6.624	42.559
1989	2	4.521	3.486	0.863	1.677	-1.068	3.328	2.946	4.748	4.435	-5.732
1989	3	4.47	4.303	1.324	2.472	-0.356	3.955	4.247	5.325	4.982	5.982
1989	4	4.535	4.444	1.296	2.836	-0.337	4.397	3.808	6.805	6.522	2.248
1990	1	4.484	4.68	1.579	3.244	-0.016	4.872	4.706	7.126	6.953	4.381
1990	2	4.509	4.874	1.926	3.551	0.235	5.284	5.279	7.164	7.097	3.819
1990	3	4.495	4.953	2.152	3.715	0.336	5.583	5.194	7.027	7.024	4.067
1990	4	4.482	4.963	2.268	3.767	0.361	5.772	5.137	6.789	6.829	3.962

		PPNF	PX	QHT1	QMHT	QMH77	RAAA	RAUTOSF	RBAR	RCD	RCP
1988	3	3.395	7.054	NA	NA	1.461	6.258	-11.984	NA	63.96	65.633
1988	4	3.544	6.926	NA	NA	-0.384	-18.061	-4.836	NA	14.568	12.198
1989	1	2.159	4.795	164.705	18.641	1.15	-1.434	1.604	-1.249	-0.277	-1.08
1989	2	3.64	3.979	112.51	42.799	1.81	5.488	2.341	-3.86	4.914	4.123
1989	3	4.707	3.543	56.654	63.296	1.414	0.958	4.309	-0.619	-13.211	-12.875
1989	4	3.922	3.276	6.055	70.685	1.347	-6.297	3.218	-9.724	-38.19	-36.719
1990	1	4.219	4.016	4.528	61.76	1.169	0.886	2.981	-10.673	-7.928	-7.633
1990	2	4.351	4.247	4.467	53.267	1.525	1.168	5.349	-0.861	11.692	10.898
1990	3	4.364	4.305	4.326	45.591	1.383	1.207	3.673	3.815	7.099	6.637
1990	4	4.348	4.268	4.101	39.48	1.396	1.764	4.951	2.005	-0.22	-0.243

		RCPCD	REM	REURDR3	RFHA	RG5	RHSAVE	RMORT	RM2PLUS	RPPERM	RTB
1988	3	63.96	0.252	61.833	1.131	17.156	36.594	5.109	-76.901	NA	62.37
1988	4	14.568	0.069	20.576	-15.617	-14.181	35.195	-9.442	251.684	NA	23.091
1989	1	-0.277	-0.094	-11.907	3.613	1.407	7.684	-0.072	26.073	-13.889	6.762
1989	2	4.914	0.15	-17.904	6.918	5.526	-2.184	9.807	5.051	17.378	-4.111
1989	3	-13.211	-0.017	-13.534	0.696	-1.782	-14.957	3.3	23.66	4.452	-18.011
1989	4	-38.19	-0.235	-5.625	-8.641	-21.684	-17.818	-5.806	103.565	19.579	-38.087
1990	1	-7.928	-0.447	-1.722	0.53	1.054	-36.345	-7.27	0.6	13.651	4.601
1990	2	11.692	-0.375	0.053	-0.353	4.756	-25.366	-0.106	-12.101	22.713	2.848
1990	3	7.099	-0.378	0.846	1.212	4.937	-23.169	1.174	2.29	7.048	2.084
1990	4	-0.22	-0.39	1.535	1.791	-4.442	-25.729	1.908	30.033	10.349	2.04

		RUG	RUM	SERVE82	SINVA82	SINVF82	SINVNA82	SINVO82	SINV82	TC	TCF
1988	3	2.216	-4.999	2.89	-0.918	-0.532	NA	4.364	3.795	NA	14.318
1988	4	-1.878	-1.404	2.683	4.753	-9.023	NA	3.606	2.568	NA	-18.01
1989	1	0.568	1.943	2.796	6.847	-2.706	2.837	3.345	2.978	12.213	18.602
1989	2	-2.608	-3.031	2.654	4.733	-1.369	3.749	4.21	3.784	16.291	16.665
1989	3	-0.428	0.346	2.39	4.189	0.276	3.832	4.146	3.845	1.612	0.444
1989	4	2.46	4.944	2.358	3.443	1.387	4.147	4.387	4.121	14.27	14.011
1990	1	0.751	9.443	2.379	3.292	1.382	3.991	4.217	3.966	2.142	0.648
1990	2	-0.572	7.673	2.492	2.454	1.378	3.713	3.914	3.668	4.91	3.772
1990	3	8.928	7.601	2.089	4.148	1.373	3.475	3.653	3.498	3.62	2.605
1990	4	8.383	7.682	2.114	3.774	1.368	3.293	3.456	3.311	4.975	4.163

		TCSL	TIB	TIBF	TIBSL	TP	TPF	TPSL	TSI	TSIF	TSIP
1988	3	21.918	5.825	9.632	5.444	-8.935	-14.23	5.094	6.979	7.045	6.78
1988	4	-10.019	4.41	2.603	4.597	10.452	10.942	9.089	6.135	6.021	5.416
1989	1	-7.643	6.652	3.605	7.178	9.752	10.17	8.795	9.552	9.889	16.363
1989	2	14.939	6.927	3.723	7.475	8.899	9.099	8.439	6.273	6.177	5.564
1989	3	5.953	6.975	3.386	7.585	7.177	6.885	7.857	5.898	5.759	5.159
1989	4	15.205	7.022	3.191	7.668	7.373	7.201	7.768	5.834	5.682	5.09
1990	1	7.635	7.021	3.36	7.63	18.05	22.684	7.859	14.36	15.348	21.282
1990	2	8.993	7.499	3.658	8.132	8.079	8.096	8.037	6.067	5.949	5.342
1990	3	7.215	7.402	3.547	8.031	7.636	7.569	7.795	5.748	5.587	4.997
1990	4	7.811	7.379	3.593	7.99	7.53	7.467	7.68	5.783	5.631	5.035

		UCKIPDAG	UCKNC	UCKPDQ	ULC77	X	X82	YCBT	YCP	YD	YD82
1988	3	NA	5.107	NA	4.092	NA	8.381	22.926	17.593	9.36	4.685
1988	4	NA	-10.306	NA	5.269	NA	4.695	-18.456	-12.345	7.372	3.634
1989	1	15.486	1.242	-3.928	3.941	12.36	7.219	-15.913	-15.943	7.587	2.19
1989	2	-9.582	6.932	0.454	3.057	12.601	8.292	13.754	11.371	6.797	1.859
1989	3	2.829	4.916	8.231	3.746	11.048	7.248	1.785	0.424	6.234	0.836
1989	4	-3.421	0.36	-4.032	3.918	10.758	7.244	14.469	12.185	6.232	0.836
1990	1	-0.429	5.246	3.514	5.423	11.684	7.372	4.35	2.868	5.2	-0.325
1990	2	0.007	5.622	-3.604	3.987	12.014	7.45	6.306	4.724	6.708	1.057
1990	3	0.153	5.727	2.743	4.23	12.138	7.51	4.034	3.588	6.635	0.92
1990	4	0.411	6.096	8.253	4.325	12.141	7.55	4.948	4.703	6.595	0.863

		YFP	YNFP	YOL	YP	YPADJ	YPADJ82	YPDIV	YPERM82	YPINT	YPWS
1988	3	-80.064	7.048	5.659	6.476	NA	NA	10.041	3.631	11.537	9.23
1988	4	89.513	3.646	5.275	7.81	NA	NA	8.125	4.359	10.459	8.173
1989	1	-9.387	5.986	5.278	7.898	7.762	2.355	6.485	3.433	6.102	8.597
1989	2	-2.239	9.849	5.244	7.101	7.326	2.364	6.596	2.754	5.271	8.367
1989	3	-34.061	6.12	5.002	6.371	6.489	1.078	6.45	2.221	6.499	7.615
1989	4	21.099	7.164	4.92	6.398	6.494	1.085	6.651	2.027	2.969	7.61
1990	1	1.265	7.196	4.856	7.012	6.806	1.196	6.633	0.727	3.017	7.434
1990	2	-1.431	7.536	5.023	6.912	7.268	1.587	6.646	0.722	6.619	7.871
1990	3	-1.4	6.661	5.085	6.785	6.991	1.257	6.568	0.818	8.142	7.685
1990	4	-0.373	6.768	5.176	6.736	6.931	1.181	6.507	0.821	7.396	7.731

		YT82	YUNB
1988	3	310.088	9.26
1988	4	-11.663	5.857
1989	1	-70.103	9.963
1989	2	-34.266	4.216
1989	3	-66.842	7.981
1989	4	-72.361	13.2
1990	1	-99.999	16.908
1990	2	2.38E+05	14.669
1990	3	352.879	17.823
1990	4	153.796	17.802