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EDITOR'S ANNOUNCEMENT
W. Robert Brazelton, Editor

There will be two significant and interesting changes in the future of the Southwestern Journal of Economic Abstracts. Both will help us to become a more meaningful organ of the Southwestern Economic Association which has always been our purpose.

First, at the annual business meeting in 1984, the Association voted to include an "invited Paper" to be published in the Journal. My original concept was to invite a retiring professor of economics in the Southwestern region to write his/her "last lecture" --his/her last official challenge to the profession. If there were no one to be found in the region to fit those exact qualifications, we would invite another distinguished person--preferably from the Southwestern region--to write the "invited paper". It would be from 4-6 pages in length, single-spaced, and published without the usual pagination fee.

Second, at a special meeting of the board in Fort Worth, June, 1984, Richard Leftwich, President, formalized the procedures for the selection of the "invited paper." This was done by a formation of a Publications Committee. The Publications committee will both oversee the selection process of the "invited paper", and, in addition, it will oversee the future progress of the Southwestern Journal of Economic Abstracts to better serve the Southwestern Economics Association and the profession. The publications committee includes the following persons:

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I look forward to working with these colleagues and the future progress of the Journal and the Association.

Large vs. Small Lectures in the Principles Course:
The Dilemma of the Small Department

Curtis H. Adams
Charles R. Britton

University of Missouri-Rolla
University of Arkansas-Fayetteville

Academic departments in large doctoral degree granting institutions have historically reallocated their scarce resources from undergraduate teaching toward doctoral level teaching and published research output. This typically takes the form of leaving "master teachers" to cover large undergraduate principles of economics courses and reallocating the other permanent faculty members. Much research in the area of economic education concerns itself with the differences between large and small sections with regard to learning, attitudes toward economics, retention, and even possible alienation involved with large sections. To offset the possible alienation of students most departments developed smaller lecture, discussion, or tutorial sections in conjunction with the large lecture. Staffing of these small supplemental sections involved graduate assistants. The smaller state supported and private universities which do not have doctoral programs do not therefore have the doctoral students to staff the small supplemental sections. These institutions do have problems however associated with high growth rates of student credit hours and low growth of faculty members.

The authors of this paper researched the results of a non-doctoral granting institution's use of non-graduate students to staff smaller discussion sections associated with large lecture classes. Regression analysis reveal little loss in productivity associated with using undergraduate students in this role at least with respect to knowledge gained although attitudes suffered somewhat.

The Economics of Crime Legislation:
The Case of the Delegalizing of Abortion

Curtis H. Adams
Charles R. Britton

University of Missouri-Rolla
University of Arkansas-Fayetteville

Economists have traditionally been sought out for analysis of economic legislation but law makers are hesitant to even accept economic analysis of social legislation. The authors of this paper present a rational analysis of the economic dimensions of one social issue of abortion. Included in the framework of analysis are the direct and indirect public costs of the delegalization of abortion. The supply and demand conditions of abortion are considered in addition to the optimal population size desired by society. The analysis is extended to cover the potential changes expected in live births if the abortion law is changed. The costs of child maintenance and the economic characteristics of marginal child producers are reviewed such that an estimate of costs can be obtained. The changes in total transfer costs alone range from 287.6 to 575.2 billion and the transfer costs are in addition to the other costs considered.

"HOW SHOULD WE TRY TO ACHIEVE OUR MACROECONOMIC GOALS?"

Joe Brocato

North Texas State University

The general area of macroeconomic objectives is obviously very broad and specific suggestions as to how we might try to achieve a pre-specified vector of goals can take numerous routes. In order to avoid the quagmire of detail that would be encountered if each suggestion were aired separately, I would, instead, like to organize my comments around one central theme: the proper role of economic instability in an economy still dominated, I feel, by the free market mechanism. Particularly, I would like to relate my feelings regarding what might be called "pure" endogenous as opposed to "contrived" or "self-induced" endogenous economic instability, and the effects these different strains of instability have upon the achievement or non-achievement of our macro goals, i.e., full employment, price stability, and economic growth.

In the context of my remarks, I refer to pure endogenous instability as fluctuations in aggregate demand resulting from conscious decisions of the micro-unit to alter economic behavior due to utility-maximizing postulates, behavior not related to discretionary or non-discretionary government policy. Self-induced endogenous instability can be looked upon as the result of strictly exogenous changes in discretionary policy, plus subsequent shifts in endogenous economic activity spawned as a result of discretionary policy. [Note that my classification makes purely exogenous policy a component of economy-wide endogenous instability.]

Now I think most economists would agree that our traditional menu of macro goals can be more easily achieved within an environment of relative economic stability than one characterized by significant volatility. This consensus alludes to the belief that specific discretionary monetary and fiscal policy instruments will tend to be more precise when undertaken in an environment where policy targets are not subject to capricious movement. Thus, the question most often raised today as the relationship between policy activism and instability is further analyzed is, 1) whether economic fluctuations reflect the imperviousness of general instability to purposeful policy actions, or, 2) whether observed instability is the result of past policy actions. This last possibility, of course, is recognized as the major indictment of Keynesian "push-button" economics cited by modern monetarism and the New Classical Macroeconomics.

Given the unprecedented gyrations in major macro variables and the dismal record of economic policy-making during the last decade, I believe we should access the use of policy activism with one important fact in mind: that at least some portion of what we term the "business cycle" is an indigenous part of the normal workings of the economy, and is, therefore, a purely endogenous occurrence. Let us recognize one thing: fluctuations in the private sector are a natural part of economic life; they were with us at the dawn of the Industrial Revolution and will be with us in the future. The Full Employment Act of 1946, with its optimistic tone of certainty and resolve, did us all a tremendous disservice--it led us to believe that we could legislate away the business cycle. Subsequent fascination with the supposed successes of Keynesian demand management policies during the late 1950's and '60's lead the profession to believe that no natural component of the business cycle existed. Hence, any volatility in real variables was automatically characterized as something to be fixed.

Now we are all aware of the excesses of Keynesian demand-management policies. However, I do think we need to re-emphasize the fact that we can better achieve

our macroeconomic goals if we would not so ardently follow the false belief that we can completely eradicate economic volatility. The record shows that a policy of activism aimed at the private sector is incapable of delivering any net gain to the economy. Thus, I believe we should come to grips with the realization that we are not going to achieve all our goals all the time, because we are not going to eliminate all private sector instability in a democratic society all the time. A "second-best" approach is in order, where policy activism is limited to a net benefits scheme where we aim to close the GNP gap only on average; where on average the difference between economic goals and economic reality is minimized. In terms of my original classifications of pure endogenous and self-inflicted endogenous instability, I believe my remarks imply that we not attempt to iron-out cyclical movements which are indigenous to the private workings of the economy. This prescription means, of course, we will still be subject to the business cycle, but our macro objectives will more easily and more often be attained because the contrived source of instability will be lessened.

My remarks might seem to imply that I ascribe to the "do nothing" policy suggestions of the Lucas-Sargent-Wallace rational expectations camp. This is not so. Just as I believe that normal instability plays an important role in venting the cyclical pressures of the private sector, I still feel that a qualified case for monetary and fiscal policy activism can be justified as long as it does not cause more volatility than we would normally have anyway. Thus, my concern with overt activism is not with discretionary policy, per se, but with abrupt changes in policy. I must conclude that government policy shiftlessness has surely added to normal private sector instability. Particularly since the 1950's, the record shows that government spending has been the most erratic component of aggregate demand. Whether you are a staunch rational expectationist or not, most economists do believe that policy shocks can have destabilizing effects on real variables. Abrupt policy shifts that jolt the economy, be they discretionary or automatic, cannot but help to exacerbate endogenous instability, the kind I must label as "self-inflicted."

To sum up, let me offer some general policy guidelines which would, I feel, enhance stability in the economy. 1) We should use policy very gingerly and aim it at instability which is not a normal compliment of the market mechanism. The executioners of policy, in recognizing the naturalness of private sector cyclical activity, should recognize the indigenous human forces in the system which, to an extent more than realized, serve as natural automatic stabilizers. Possibly such things as inventory buildups or stock-outs and individual market disequilibria and ques along with innumerable other forces tend to constrain our ups and downs more than we realize. 2) In carrying out current policy we should recognize the cumulative impact of past policy actions. Hence, policy should attempt a partial correction of non-normal cyclical activity. Such an approach to policy implementation would also enhance the predictive accuracy of theory by stabilizing key behavioral and institutional parameters by which policy actions are transmitted to policy effects. 3) I believe we need to dismantle the many institutional practices which perpetuate inflation. For example, the practice of automatic indexation only serves to increase self-induced instability by enforcing price inflexibility and inviting monetary accommodation. 4) Finally, I think we should access the rational expectationists' prescription to foresake all active policy very closely. I believe there is great potential for misinterpretation about what a policy of no activism can really produce. To date the evidence is inconclusive.

HOW TO ACHIEVE OUR MACROECONOMIC

GOALS: QUESTIONS FOR THE PANEL

W. Robert Brazelton, Ph.D.

University of Missouri-Kansas City

There seems to me to be many economic problems facing our nation today. I will concentrate on four for the purpose of this panel.

First is the problem of the current size of the Federal Deficit. In 1979, the annual deficit was 1.2% of the G.N.P. In 1983, it was over 6.0%. In 1984, it is projected to be 5.5% of G.N.P. This may be too large and may involve "crowding out". Also, the deficit may now be structural not cyclical. For example, in the present recovery, the deficit has increased pro-cyclically instead of decreased countercyclically. This may be due to our lower tax structure or to other problems.

Second, interest rates remain high due, possibly, to "crowding out" or to "inflationary expectations." Do these high interest rates discourage new investments? Do they encourage mergers instead of new investment--the former transferring ownership without adding to additional productive capacity!

Third, unemployment remains high. Even though it has decreased to 7.8% in the recent expansion, the rate of 7.8% is nearly twice as high as the 4.0% accepted for an earlier period, 1945-1965. For structural reasons, certain groups seem no longer to share the benefits of the recoveries.

Fourth, there are other structural problems. Defense expenditures are higher, but we are getting less employment per defense dollar than previously. Silicon valleys are growing but other valleys are declining. However, silicon valleys are not labor-intensive and involve skills not obtained by the elderly or the unskilled. Also, if steel declines, will we import steel or revitalize steel? The answer to that question involves industrial policy, balance of payment problems, and military defense considerations. The real problem is that we now realize that the world is not as simple as it seemed when we were in graduate school, *ceteris paribus*.

THE QUESTION OF "AN" INTEREST RATE THEORY

W. ROBERT BRAZELTON, Ph.D.

UNIVERSITY OF MISSOURI-KANSAS CITY

There are several interest rate theories of current relevance that are simultaneously in use today. The classical view indicates that $I(i)$ and $S(i)$ cross at a particular point which is the interest rate. The Keynesians introduce a L -schedule and a M -schedule (the former with varying slopes) which intersect at a particular point with the former being relatively unstable. Expectations are introduced in the form of interest rate expectations, not price expectations. Later Keynesians introduced the IS-LM analysis which is used for textbook and for forecasting purposes. In each, shifts in the schedules will change interest rates. However, in terms of recent problems of inflationary expectations (I.E.), an outward shift of the LM schedule may not bring a reduction in interest rates if inflationary expectations offset the LM shift. Whether interest rates fall not as much, or stay the same, or rise would depend upon the size of $\Delta I.E.$ compared to ΔM at the moment. Thus, $\Delta i = \Delta M - \Delta I.E.$. Thus, price expectations may be included in the IS-LM analysis as an addition to it.

Some recent interest rate analysis takes on a different tone. Santoni and Stone indicate that the interest rate is not the price of money but is..."the price paid for earlier availability of goods and services" (p.14). They attempt to refute the accepted analysis that: (1) tight money always raises interest rates (not if it decreases inflationary expectations); (2) high interest rates mean a high value of the dollar and thus, an inflow of money (not if high interest rates are caused by inflation which causes the dollar value to fall); (3) real interest rates may be negative (not unless past lending/borrowing decisions have resulted in unexpected wealth transfers due to uncertainty). More recently, Brown and Santoni have indicated that "as a change in the Monetary growth rate comes to be permanent, short-term rates will fully adjust within 12 months. The direction and magnitude of the change in short-term rates will mirror the change in monetary growth" (p.25). Herein, their emphasis was both long-run and covered the post-1971 period.

In a reply to Santoni and Stone, I stressed that the I.E. effect was not a refutation of supply and demand in determining interest rates, but an addition to it $\Delta i = \Delta M - \Delta I.E.$. Thus, with I.E., a shift of the LM schedule to the right might, via $\Delta I.E.$, raise interest rates. I would also argue that a long-term increase in M would be inflationary. Furthermore, as in Keynes, if in a recession interest rates rise, it is due to a backward shift in LM, (uncertainty, shock) not inflationary expectations (p.211).

In a reply to me, Santoni and Stone stressed that "If, however,

some fooling takes place (less than immediate rational expectations model), then we don't know what the transition will be--it is basically a short-run empirical issue. In any event, the crucial result at any point in time will be a function of current and relevant lagged changes in money growth, not the current money growth alone." Now, of course, we see how two financial pundits can predict both a decrease and an increase in interest rates from the same data. It is long-run versus short-run. Also, it is permanent change in M, versus short-run change in M. If the increase is long-run, eventually interest rates will rise, especially if inflationary expectation takes over.

My questions are: (1) Will inflationary expectations take over immediately?; (2) Is every increase in M immediately considered permanent rather than countercyclical?; (3) Are lags always the same and, if not, can we go the short-term countercyclical route without involving inflationary expectations, I.E.?; (4) Are rational expectations always rational? Santoni and Stone refer to similar questions: (1) Whether M. was anticipated or not; (2) whether ΔM was considered permanent or not; (3) and whether short-term or long term rates of interest are being predicted (p.16; note 11).

In the above paragraph, I raised an issue about ΔM and I.E. and raised seven qualifications to the answer. Therein lies the problem. Economists have theories of the interest rate, but there is too much happening in that interest-rate hen house to predict the exact amount of eggs being produced and how fast. However, that does not mean that the interest rate henhouse is empty.

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Imported Capital Biased Technology And Industrialization In LDCs

Thomas P. Chen
St. John's Univ., New York

One of the special characteristics of the less developed countries (LDCs) is that they have surplus labor forces, especially in the agricultural sector, and their production technologies are often imported from developed countries. These imported technologies are usually biased toward capital using. In the pursuit of industrialization in the LDCs, what role will the capital-biased technology play? Is the surplus labor force an asset or a burden to the LDCs? This paper seeks answers for these questions.

In this paper, industrialization is defined as the non-agricultural sector growing faster than the agricultural sector. Therefore, sooner or later, the production of the non-agricultural sector will surpass the agricultural production, although the gap between the outputs of these two sectors may increase at the initial stages, even the smaller sector is growing substantially faster than the larger sector. Others may simply define industrialization as growth over time of the non-agricultural sector, or as the relative production share of the non-agricultural sector growing over time.

In a traditional two-factor production model, according to the Hicksian concept, production technology neutrality is defined by the signs of the proportionate rate of change of the marginal rate of substitution between labor and capital. The production function used in this paper is a factor augmenting CES (Constant Elasticity of Substitution) production function with constant returns to scale. With such a specification, it is shown that the technological bias depends on the rate of factor efficiency improvement and the magnitude of the elasticity of substitution. For example, capital biased technology prevails when the efficiency improvement rate of labor is greater than that of capital, if the elasticity of substitution between capital and labor is less than unity which is generally believed by most economists.

This condition has important implications for economic development and for achieving industrialization. This paper shows if restricting elasticity of factor substitution to be less than one, a sufficient condition

for achieving industrialization will conflict with the imported capital-biased technology in the non-agricultural sector.

Regardless the patterns of production technology, intuitively output growth rate depends on the rates of input increments in quantity and quality. Both of them contribute positively to output growth. Hence, to achieve industrialization, policy makers may simply adopt a policy that allocates a higher proportion of capital to the non-agricultural sector and also improve the capital efficiency in that sector. However, in order not to contradict the imported capital-biased technology, the rate of efficiency improvement of capital should not be greater than that of labor. Of course what this means is not to suppress the improvement of capital efficiency for the sake of preserving a relatively higher labor efficiency. It rather stresses to promote a faster improvement for the labor efficiency so that the labor efficiency improvement rate can always be greater than that of capital. This conclusion underscores the importance of investment in human capital.

Using industrialization as defined above, this paper indicates that surplus labor force is not a favorable factor for industrialization. Improvement in labor efficiency or increase in the rate of labor utilization may hinder industrialization for both of them may reduce the difference of the growth rates of the two sectors. Hence it will take a longer time for the non-agricultural output to surpass the agricultural output. However, one may argue that this should not be a real concern of the policy makers, for a more meaningful concept of industrialization is that there is a fast growing non-agricultural sector, but not necessarily faster than the agricultural sector.

It is important to note that the conclusions reached in the paper are derived by using the specific production function and assumptions. In empirical investigations, different types of technology bias may be obtained when different production function specifications are applied to the same set of data. Therefore, empirical testings of the model in searching the relationship of industrialization and technological adoption should be handled cautiously.

CHANGES IN MARGINAL TAX RATES AND THE IMPACT ON SAVING
AND CONSUMPTION: THE SUPPLY-SIDE VIEW VERSUS THE
KEYNESIAN APPROACH

Elba Brown-Collier and Wm. Doyle Smith

The University of Texas at El Paso

It is often argued that the supply-side view is either "nothing new" or is "no view at all," the implication being that their arguments are not different from traditional macroeconomic theory. A key component of supply-side economics is that changes in marginal tax rates represent changes in relative prices and, therefore, a decrease in marginal tax rates will have important and predictable impacts upon the incentives to work, save, invest, and consequently, on aggregate supply and national income. Unlike traditional Keynesian economics, however, the supply-siders contend that changes in marginal tax rates do not have to impact upon disposable income in order for there to be an impact upon consumption and saving. The supply-side view is that changes in marginal tax rates will have the desired impact on saving relative to current consumption even if disposable income remains unchanged.

The purpose of this paper is to examine how supply-side economics differs from traditional Keynesian economics in terms of the impact of changing marginal tax rates on consumption and saving and consequently on economic activity. It is assumed that changes in marginal tax rates do not necessitate changes in disposable income or in government expenditures. This paper does not evaluate the pros and cons of supply-side economics or the success or failure of its application on the national level.

In the supply-side view, a decrease in marginal tax rates is said to affect the relative costs of saving and consumption by increasing the future income stream purchased with each dollar of current consumption foregone. This will give rise to a substitution out of current consumption and into savings, assuming the level of income remains unchanged. The increase in saving relative to consumption is considered to be a desirable result as it is argued that the increase in saving will

accommodate a decrease in interest rates which should increase the level of investment. It is the increase in investment which results in the increase in aggregate supply and, therefore, economic activity.

The net present value of investment in real assets (capital) and financial assets (bonds) will increase due to the increase in the after-tax net revenue streams. If capital stock, bonds and money are substitutes, an increase in the demand for capital and bonds will lead to a decrease in the demand for money. Presumably the increased demand for bonds and the decreased demand for money is consistent with the increase in saving relative to consumption at the given level of disposable income. Once equilibrium is restored in the three markets, the level of interest should be lower and the level of investment should be increased.

The short-run impact on aggregate supply comes from changes in labor supply due to changes in the relative prices or after-tax income and leisure. More important, however, is the long-run impact. The increase in investment should lead to an increase in the capital stock and an increase in the marginal physical productivity of labor and, therefore, in the demand for labor. This will cause an increase in the long-run aggregate supply curve.

The supply-side view is distinctly different from traditional economic macroeconomic theory in its emphasis on relative price changes as the important source of change in economic activity. Unlike the traditional approach, which emphasizes changes in disposable income resulting from tax changes and the increase in aggregate demand, the supply-side view suggests desirable changes would occur in the absence of such income changes. It further implies that desirable impacts of changes in disposable income might be offset if relative prices are changed in such a way as to affect the incentives to save, invest and work.

The important assumption in the supply-side view that the substitution effects associated with changes in relative prices are stronger than any income effects may not be warranted. It appears, however, that some recognition of the possibility of adverse substitution affects associated with public policy should be given. It seems an analysis incorporating the two with some arguments as to conditions under which both might be important is a desirable step in macroeconomic theory.

THE CYCLICAL BEHAVIOR OF REAL WAGES
AND PRODUCTIVITY
Donald L. Bumpass and George Greenwade
Texas Tech University

One frequent research conclusion is that wages are procyclical, rising during economic expansions and falling during recessions. This finding is counter to neoclassical economic theory which holds that diminishing returns to labor implies real wages movements that are countercyclical over the business cycle due to the negatively-shaped demand curve, a period of economic expansion will result in a negative relation between real wages and employment. [2, p. 10].

The purpose of this study is to estimate a demand curve for a labor and examine the relationship between the real wage and cyclical movements. Our contribution is to refine the specification of the existing models by introducing a measure of utilized capital stock in lieu of the absolute capital stock to estimate the demand for labor for the U.S. manufacturing sector over the time period 1948-1982.

The issue of real wages and cyclical movements in the economy was addressed by estimating the following equation:

$$\ln W = 0.64 - 0.318 \ln(L/K) - 0.393 \ln(P) + 0.022T$$

(t) (9.3) (-1.93) (-13.62) (7.03)

$$R^2 = 0.988 \quad p = -0.40 \quad DW = 2.17.$$

W = real wage rate,

L = labor input measured by number of hours worked,

K = capital input measured by absolute capital multiplied by capital utilization rate,

P = real price of energy services, and

T = time period.

Recognizing the problem associated with the multicollinearity between capital stock and hours of labor inputs, we have imposed constant returns to scale restriction on the production function by estimating it in its intensive form. We use the utilized capital stock (K) as an appropriate measure of capital services. The utilization of the capital stock varies over the business cycle, with utilized capital rising

during the expansion phase of the cycle and decreasing during the recession stage. Consequently, the flow of capital services tends to be procyclical. By using the absolute capital stock as an input in the production function, capital services would be overstated during recessions and understated during expansions. Real wages have an asymptotically significant negative relationship to labor per unit of utilized capital.

Thus, the estimated demand function supports the view that real wage movements are consistent with the hypothesis of diminishing returns to labor when the capital service input is properly measured. This result is consistent with findings of [3], and [4], but is counter to findings of [1]. Moreover, the energy price variable is highly significant and may be interpreted as the real wage elasticity of energy. Since real energy prices over the period 1973-1982 rose by over 80%, almost one-third of the reduction in real wages can be attributed to "energy price shocks" of the period.

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THE CRIME VICTIMS COMPENSATION ACT OF TEXAS

Laurence Fisher, Ph.D.

Our Lady of the Lake University

In 1979, the Sixty-sixth Legislature of the State of Texas created the Crime Victims Compensation Fund to indemnify innocent victims of crime who suffer injury and/or loss of income resulting from prevention of crime or violent crime. The act became effective January 1, 1980 and was significantly amended by the Legislature in 1983.

This paper examines major problems of the Act during it's first three years and suggests needed reforms. Many victims of crime in Texas have been given the false hope that they could expect some financial relief from expenses incurred as a result of their injury or death. Unfortunately, many now face the cruel reality that the Crime Victims Compensation Fund lacks the funding to pay approved claims. Months or years pass by before funds are available to remove victims from the waiting list.

The Crime Victims Compensation Fund is self-supporting. Funded by court fees assessed on the conviction of a felony and certain misdemeanors. Research proved that the number of felonies and misdemeanors showed some counties, particularly Bexar county, were not collecting the fee.

The 1983 Texas Legislature addressed itself to the problem and now if counties do not make adequate collection attempts, funds to victims of crime in a county can be cut-off. This and other changes in the law, if enforced, should solve the problem.

Deficits and Foreign Exchange Rates in the Interdependent World

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This paper examined the relationship between federal government deficit and the current account balance in ten industrialized countries (the Group of Ten) in the postwar period. In particular, the study attempted to identify the impact of the flexible rate system on the deficit and the current account balance. The study was also extended to include the distributed lag impacts of a change in federal deficit on the external balance.

Model and Data

The approach used in this study is a basic Keynesian injection-leakage model of income determination.¹ An estimating equation is as follows:

$$(X-M) = a_0 + a_1(TX-G) + a_2D + e_t \quad (1)$$

where $a_0 = (S - Id)$; Id = domestic investment; G = government purchases of goods and services; X = exports of goods and services; M = imports of goods and services; S = savings; TX = taxes; $D = 0$ 1952-1974; $D = 1$ 1975-1982. $(X-M)$, $(S - Id)$, $(TX - G)$ represent the current account balance, net domestic private saving, and government fiscal balance, respectively.²

The net exports of a country can be considered not to react fully or immediately to a change in government fiscal balance. A distributed lag model may be used to incorporate the fact that some amount of time usually lapses between government fiscal changes and their influences on the external balance.³

$$(X-M) = b_0 + b_1(TX-G) + b_2(X-M)_{t-1} + b_3(X-M)_{t-2} + e_t \quad (2)$$

This specification of the model would enable us to determine the average lag period in which the peak effect of a change in $(TX - G)$ on the net exports $(X - M)$ occurs.

All the data are collected from the International Financial Statistics. The values of the variables are in the currency of a country under study. The periods of the study are listed in table 1.

Empirical Evidence

The results of estimating the equation (1) with the use of an ordinary-least-squares (OLS) procedure are presented in table 1. The R^2 values are reasonable, ranging from 0.14 to 0.66. However, the model is plagued by the existence of serial correlation. On the basis of the Durbin-Watson statistic we reject the null hypothesis, $H_0: \rho = 0$, for Belgium, Canada, France, Netherlands, West Germany, and the U.K.

The estimated coefficient for the fiscal balance, $TX - G$, exhibits the expected sign for all except Canada, Japan, West Germany, and the U.K. The coefficient estimates are statistically significant at the 0.05 level for Belgium, Italy and Netherlands. The estimate for Canada exhibits the wrong sign and is statistically significant.

The change in the international monetary system from the fixed to flexible rates had a statistically significant impact on the economic structures of Canada, Sweden, and the U.S. The change had a significant negative effect on the net exports for Canada and the U.S.

Table 1
Results of Equation (1)

Country	Period	CONST.	(TX-G)	D	R ²	S.E.	D.W.
Belgium	1960-1982	12.046	0.1272 (2.3616)*	-28.4167 (1.7453)	0.66	12.046	0.755
Canada	1952-1982	-0.211	-0.8399 (4.5276)*	-5.7777 (3.6379)*	0.48	1.178	1.043
France	1952-1981	3.469	0.5247 (0.8198)	-26.4223 (1.7427)	0.22	28.803	0.944
Italy	1952-1982	-65.742	0.2499 (4.9716)*	2642.877 (1.3255)	0.65	2674.723	1.634
Japan	1957-1979	205.190	-0.1772 (1.2915)	-800.9849 (0.5908)	0.14	1187.262	1.378
Nether-lands	1952-1982	0.338	0.0004 (2.2367)*	0.2612 (0.1001)	0.38	3.287	0.828
Sweden	1952-1981	0.373	0.6022 (1.7341)	21.9382 (2.0462)*	0.14	17.099	2.195
West Germany	1952-1982	9.761	-0.7123 (1.3766)	-8.3245 (1.1424)	0.24	10.805	0.862
U.K.	1952-1982	-0.430	-0.0001 (0.3847)	1.6625 (0.7259)	0.26	1.951	0.537
U.S.	1952-1982	-0.256	0.0158 (0.1789)	-18.6650 (2.9736)*	0.57	7.839	1.398

t - values in parentheses; * significant at the 0.05 level

With regard to the average lags generated by the equation (2), most countries except the U.S. and the U.K. show the lags of less than two years. The calculated lags in years were 0.52 for Belgium, 1.63 for Canada, -1.02 for France, -0.95 for Italy, 1.02 for Japan, 1.10 for Netherlands, 0.40 for Sweden, -0.18 for West Germany, 2.91 for U.K., and 5.47 for U.S. This suggests that the federal government fiscal changes have the resultant effects on the external balance within a relatively short period of time. In general, the smaller the country, the shorter the lag appears to be.

Notes

¹ A similar specification of the model is used by Leroy O. Laney, "The Strong Dollar, the Current Account, and Federal Deficits: Cause and Effect," *Economic Review*, Federal Reserve Bank of Dallas, January 1984, pp. 1-14.

² Note the usual usage of government surplus or deficit, measuring the difference between total government expenditures, including public transfer payments, and government receipts. In this paper government surplus or deficits refers to the difference between government purchases of goods and services and taxes.

³ Equation (2) is in the form of Koyck-type second-order distributed lag model with geometrically declining weights. For details, see Z. Friliches, "Distributed Lags: A Survey," *Econometrica* (January 1967), pp. 16-49. A similar method was utilized in J.S. Hodgson and P. Phelps, "The Distributed Impact of Price-Level Variation on Floating Exchange Rates", *The Review of Economics and Statistics* (February 1975), pp. 58-64.

Retired Social Security Recipients: Factors Determining Their Choice of Residency

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The nation's elderly are becoming more numerous, having increased almost three times faster than the under-65-year-old age group during the 1970's.¹ This trend is expected to continue as people are living longer and are experiencing better health in the later years of their life. As a result, the retired Social Security recipients have been the focus of an increasing amount of national attention in recent years.

Purpose of the Study

The purpose of this study is to gain insight on the factors determining the choice of residency by the retired Social Security recipients. Specifically, the objective of the study is to measure the significance of such factors as health care, unemployment, crime rate, property tax, amenities, income, population density, precipitation, hours of sunshine and the rate of inflation in explaining concentration of the elderly at the Standard Metropolitan Statistical Area (SMSA) level, using the most recently available data (the 1980 Census Data).

Model and Data

The degree of concentration of the retired Social Security recipients in a given SMSA is measured by the ratio of the recipients to the population of the area in this study. The ratio may rise through "accumulation" or "congregation." The former refers to an increase in the elderly population relative to the total in an area by an out-migration of the non-elderly from the community (a fall in the denominator in the ratio form.)

Factors determining the concentration of the retirees include many economic, climatic, social, demographic and other factors: inflation rate, unemployment rate, income, property taxes, doctor, amenity, crime rate, density, sunshine, and precipitation.

In order to maintain consistency in sources of information, all the data except the inflation and climatic indexes came from State and Metropolitan Area Data Book 1982. The inflation data was obtained from the CPI Detailed Report. The climatic data was obtained from the U.S. Department of Commerce Weather Bureau.

This study uses the data for 28 major SMSAs out of the approximately 300 in the United States. Those 28 SMSAs are selected because the CPI data are readily available from the Department of Labor. This allowed the use of inflation as a factor determining the concentration of retired Social Security recipients in a given SMSA. This also is a limitation of the study since a broader based sample would have

been more desirable. There is, however, no reason to believe that the SMSAs selected are atypical. The SMSAs represent the four census regions (Northeast, North Central, South and West) of the country?

Empirical Results

Table 1 shows the empirical results of the above model using an Ordinary Least Squares method. The adjusted R^2 , \bar{R}^2 , is reasonable with the value of 0.62.

All the estimated coefficients, except for sunshine and precipitation, show the expected signs. The coefficient estimates for unemployment rates, income, and doctor are statistically significant at the 0.05 level. The estimates for sunshine and precipitation exhibit the wrong sign, but are statistically insignificant.

Table 1
Regression Results: Equation 1

<u>Independent Variables</u>	<u>Coefficient Estimates</u>	<u>S.E.</u>
Inflation rate	-0.0598	(0.1798)
Unemployment rate	0.5705*	(0.1783)
Income	-0.0057*	(0.0004)
Property tax	0.0050	(0.0064)
Doctor	0.0311*	(0.0063)
Amenity	0.1057	(0.0691)
Crime rate	-0.0001	(0.0003)
Density	-0.0005	(0.0003)
Sunshine	-0.0096	(0.0114)
Precipitation	0.2276	(0.2237)
\bar{R}^2	0.61	
S.E.	1.5510	

*Significant at 0.05 level

Notes

1. U.S. Department of Commerce. Bureau of the Census. United States Census of Population: 1982.
2. The SMSAs used in this study for which the Department of Labor compute a consumer price index are: From the Northeast region - New York, NY; Philadelphia, PA; Boston, MASS; Northeast, PA; Buffalo, NY; Pittsburg, PA. From the Northcentral region - Chicago, IL; Detroit, Mich; Cleveland, Ohio; Milwaukee, Wis; St. Louis, MO; Cincinnati, Ohio; Kansas City, MO; Minneapolis, Minn. From the Southern region - Baltimore, MD; Miami, Fla; Washington, SC; Atlanta, GA; Dallas-Ft. Worth, TX; Houston, TX. From the Western region - Los Angeles, CA; Anchorage, Alaska; Denver, Col; Portland, Oregon; San Diego, Cal; Seattle Wash; Honolulu, Hawaii; San Francisco, Cal.

WORKING WOMEN IN THE 1980S

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Predictions for the labor force in 1983 went awry primarily because the participation rate of women did not increase as expected. This paper seeks to give reasons why the ever-increasing participation rate of women exhibited in the 1970s should not be expected to continue and to examine some of the implications to the economy which may result from a reduced participation rate of women in the labor force. The paper relies heavily on labor force data as reported in the literature by the U.S. Departments of Labor and Commerce.

While there are those who argue that women have recently been dropping out of the labor force because there are no jobs available and that they will come back once recovery is more evident, this paper argues that the dropping out is the coming trend for the next decade. Several factors lead to this conclusion:

1. The greatest increase in labor force activity in the 1970s came from women with families. Current literature is suggesting many of these women are finding the pressure of coping with both job conditions (as they presently exist) and family responsibilities too great. Accentuating this will be the number of women in the 1970s who intentionally delayed having children but in the 1980s will give birth. Further compounding the situation is that women of the 1980s do not feel the same pressure on themselves to achieve or "prove themselves" as women in the 1970s did, so that "dropping out" will not be looked on as a weakness, but rather a choice. Re-entry into the labor force will become increasingly difficult as technology is changing rapidly, making old job techniques obsolete.

2. Many wives worked in the 1970s to provide stability to the family income. However, with the abatement of inflation and the lowering of unemployment rates, there is less pressure from these sources for continuing participation in the labor force.

3. Presently, many women would like to go back to the "cottage industry" of doing telecommunicating office work at home in order to escape the child-care problems. However, business has not been particularly cooperative in these efforts just as it has not been cooperative in providing as much part-time work as women would like.

4. "Cafeteria-type" benefit plans in which each employee can make up his own individual package of fringe benefits by picking and choosing from several alternatives, could benefit working women greatly but are the exception rather than the rule.

5. Although recent legislation has provided some tax relief when both spouses work, there still is room for much improvement in this area. Taxes affect the hours of work of wives and the elderly substantially, but do not affect the hours of work of husbands nearly as much. Provisions for IRA's for nonworking wives may even serve to encourage some wives to stay home, yet be able to provide for their future.

The "dropping out" theory can become a self-fulfilling prophesy. Many men managers are already of the opinion that women work only until a family arrives and, as a result, these managers are hesitant to invest time and money training women for upper-level positions. At the same time, as women face such attitudes on the job, this encourages the "dropping out" and management's attitude is justified.

Any economy is composed of people engaged in various activities and playing various roles--investors, entrepreneurs, consumers, workers. Changes or trends which affect people in one role generally have impacts on people in other roles.

The current decade could turn out to be one in which the work force grows faster than the population. New entrants into the labor force would have a better chance of getting a job although many of the new jobs will be low-paying service jobs, adding to the "shrinking middle-class" syndrome. Less new people will mean less to pay into the social security system but it can also mean easing of the payout problems for social security as more old people remain at work longer. More mature people in the work force can mean a more stable and productive force, leading to higher real wages and profits, thus noninflationary growth and less deficit spending.

Any change in the size of the labor force growth can have resounding impact. However, the level and direction of this impact is not clearly predictable because "ceteris paribus" is the exception rather than the rule in the real world.

RECENT TRENDS IN U.S. WHEAT PRODUCTION AND PRICES

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This paper discusses the relationship between beginning stocks, production, total supply, and yield of wheat and real price. High levels of these variables have resulted in low prices for U.S. wheat in recent years. With farmer participation in the 1984 wheat program anticipated to be lower than last year, increased production and lower prices are possible in the 1984/85 marketing year.

Simple regression and correlation analysis were used to show a strong inverse relationship between the production type variables (beginning stocks, production, total supply, and yield) and real (deflated) price. Beginning stocks and total supply have a particularly strong relationship with deflated price as measured by coefficients of determination of 0.76 and 0.74 respectively and correlation coefficients of -0.87 and -0.86 respectively.

The regression equation of total supply versus deflated price was used to estimate the average 1984/85 farm level market price. This price was estimated to be in the range of \$2.74 to \$3.53 per bushel.

UNEMPLOYMENT, LABOR DEMAND AND LABOR FORCE PARTICIPATION:

A REGRESSION MODEL

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Some economists contend that recent increases in the supply of workers, particularly women and young people, have been the primary cause of the growth of unemployment. This paper challenges the assumption of a positive correlation between unemployment and youth labor market participation through the use of regression analysis.

An equation is presented which suggests that, during the years 1954-1980, youth labor market participation was negatively correlated with both unemployment and youth unemployment. Moreover, the equation suggests that factors having to do with the demand for labor, such as the declining proportion of manufacturing jobs in the economy, are positively correlated with the growth of unemployment. The implication of this finding is that demographic change, in the form of reduced work force participation on the part of young people, is unlikely to have a noticeable impact on the unemployment rate in the absence of policies designed to stimulate the demand for labor.

"Dual-Career Academic Couples: Analysis of
Problems And a Proposal for Change" - Preliminary

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The movement toward equality between marriage partners forces couples to deal with career decisions in a new way. In the traditional marriage, where a woman's career was subservient to her husband's, the objective of the couple was largely to further his career. The woman's role was to support his career and to do the best that she could for herself, if she worked outside the home, given the constraints imposed by his career choice. Today, not surprisingly, many women are unwilling to accept this arrangement. And some men are supportive of a woman's right to fully pursue a career. We analyze some of the problems that these couples encounter as both pursue their careers.

First, we review general problems of dual career couples. Then, we focus on the particular difficulties facing academic couples. We argue that problems the academic couple faces are becoming more prevalent, primarily because women constitute a higher proportion of higher educational faculties today than in the past. Next, we analyze the problem of a couple's joint utility maximization subject to institutional constraints on academics. Then, we offer a proposal for changing the nature of the institutional constraints. Finally, we show that the proposed relaxation of institutional constraints can lead to a Pareto superior result for the academic couple, the academic institution, and other affected faculty members.

Equal employment laws aim to give equal opportunity in employment for women (Moore, 1980; Friedan, 1977; Kanter, 1977). However, as Moore (1980) notes, these laws create problems for academic couples. These laws require employers to make recruitment and selection decisions without regard to sex. Thus, an academic couple cannot appeal to an educational institution to give them special consideration because of their marital situation, nor can the institution use such information to inform their decision (Moore, 1980).

Utility Maximization of the Academic Household

We analyze the preferences of the male and female members of the academic household. The individual

member has the following arguments to his/her utility function: (1) market commodities, (2) leisure, (3) job satisfaction, (4) the welfare of the spouse, and (5) geographical location.

If there was a Walrasian Auction with all participants having full information, etc. and with all aspects of the employment contract subject to bidding, then an individual academic would seek to maximize his expected utility by choosing the institutional offer which best suited him. Even in such an idealized framework, an academic couple has a more difficult choice. Since geographic proximity of the spouses makes a difference, it is not sufficient for the male to choose his best offer and the female to choose her best offer. They must take into account the travel costs in money, time and psychic energy. It is quite possible that they would choose positions that were not first choices for either of them.

There are two aspects of the academic job market that are particularly troublesome to an academic couple. First is the wide geographic dispersion of appropriate academic jobs and second is the lengthy and sometimes segmented nature of job screening. The ideal result of a job search from an academic couple's perspective would be for both of them to obtain the best job (highest prestige and salary and lowest teaching load) for which they were qualified, and for the jobs to be in the same metropolitan area. The likelihood of such an outcome is extremely small.

A Proposal for a Joint Contract for an Academic Couple

We propose that academic institutions offer the possibility of explicit joint contract negotiations for academic couples. The prime area of negotiations with the couple would be in regard to teaching responsibilities and compensation. Since the spouses might be in different departments there may be a need for inter-departmental negotiations on the allocation of the positions.

The locational decision of an academic couple is complex and presents them with many difficulties. At present, equal opportunity laws may actually have the perverse effect of reducing the number of female academics. A sympathetic institutional response to academic couples can substantially improve the couples' chances of successfully pursuing two academic careers. This can, if done properly, also benefit universities and university professors as a group.

THE CURRENT STATUS OF THE TEXAS ECONOMETRIC MODEL

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In recent years, there has been a major effort throughout the country directed toward the development of state and regional econometric models. This growth in sub-national systems has been caused by numerous factors, including, among others, (1) the widespread acceptance of national models within the corporate and government sectors, (2) major improvements in the regional data base, (3) significant advances in the ability of computers to store, manipulate, and analyze data, (4) the development of statistical theory for the estimation of large dynamic systems and (5) the more active and sophisticated approach to policy planning which has recently been adopted by many state governments. Despite the increasing number of models, significant problems remain in their development. Specifically, major data problems continue to preclude certain standard and effective methods of model design (e.g., the National Income and Product Account expenditure basis) at the regional level. Moreover, the basic theory underlying regional economic activity and interactions is not as well developed as is that for national economies. Consequently, many of the existing models are somewhat ad hoc in their development of equations and imprecise with respect to linkages, mathematical consistency, and closure.

An effort to address the problems noted above is currently in progress within the context of the Texas Econometric Model Project. This endeavor, the first phase of which was recently completed under direction of the author, involves the specification, estimation, and simulation of a large scale system which seeks to describe and characterize the economy of Texas under alternative experimental conditions. The research is innovative in that (1) estimators for large dynamic models with autocorrelation and multicollinearity are being employed, (2) a consistent structural framework which permits maximal information content is being developed, and (3) an effective approach to sectoral and geographical disaggregation is being embodied. The consistent structure and its associated options regarding alternative levels of aggregation are extremely useful in that they permit the generation of much larger and more detailed regional models than previously possible. Moreover, this approach also renders the development of sectoral and geographical submodels within the regional system highly feasible. The paper described herein seeks to (1) provide a comprehensive diagrammatical and mathematical description of the overall structure of the Texas model, with emphasis on the nature and methodology of sectoral and geographical submodeling at varying degrees of disaggregation and (2) illustrate its performance in predicting gross output in a variety of simulation contexts. Following an exposition of the broad basis of the system and several implicit function relationships, the agricultural sector is utilized as a means of illustrating in great detail the

various disaggregation options afforded by the structure. Several other sectors of the model are then summarily examined and a brief discussion of geographic submodeling is given. This analysis, while reasonably comprehensive, seeks to emphasize the various aspects of the output determination process. A discussion of several alternative simulation exercises for the production sector is then given to illustrate the overall applicability of the system and its stability under dynamic Jacobian processes. Finally, a concluding section emphasizes the major aspects of the analysis. This rather lengthy presentation should be sufficient to provide a relatively complete examination of the structure and functional capabilities of a large regional econometric system.

ABSTRACT

INDUSTRIAL DISTRIBUTIONS AND AGGREGATE EMPLOYMENT RATES OF MEN AND WOMEN

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Male and female unemployment rates behave differently over the business cycle in terms of both their level and their volatility. First, men tend to have lower unemployment rates than women at all phases of the business cycle. Secondly, the ratio of the female to male unemployment rate varies, falling during economic contractions and increasing during expansions. A number of research studies have examined the way in which the cyclical timing of women's labor force participation affects the ratio of male to female unemployment rates. This research examines another influential factor, the impact of differences in male and female distributions over industries on the behavior of their respective unemployment rates over the business cycle.

In order to isolate the effect of distribution by industry on the aggregate female/male unemployment rate differential, a hypothetical unemployment rate was created using the male distribution by industry and female unemployment rates by industry. This hypothetical rate shows what the aggregate female unemployment rate would be were females distributed by industry in the same proportion as males. The difference between the actual female rate and the hypothetical rate reflects the effect of the distribution differences between men and women, whereas the difference between the male rate and the hypothetical rate reflects the effects of within-industry male/female unemployment rate differentials. Calculations of aggregate female, aggregate male, and hypothetical unemployment rates were performed using monthly employment and unemployment data for men and women in fifty-one detailed industries over a five year period from January 1978 through December 1982.

The results of this study, on the one hand, confirm that women's distribution over industries works in the direction of lowering their unemployment rate relative to that of men. On the other hand, this study illustrates that industrial distribution does little to explain the lower cyclical sensitivity of the female unemployment rate. Rather, it is differences in the behavior of male and female unemployment rates within industries which provide the key to explaining the lower volatility and timing patterns of the female unemployment rate.

WATERWAY USER TAXES, GRAIN EXPORTS
AND INTRAINDUSTRY EQUITY

by

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and

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In 1978, the U.S. Congress approved the user-pay principle of taxation as a means of recovering a portion of the funds expended to maintain the navigability of the inland waterways. The Inland Waterway Revenue Act, which established a fuel tax on commercial users of the inland waterways, potentially impacts wide segments of the economy and raises issues of both interindustry and intraindustry equity.

The purpose of this paper was to provide additional information with respect to the issue of waterway user fees and intraindustry equity through an analysis of the U.S. grain export industry. The specific focus was on the politically charged question of who will ultimately pay for increasing waterway user fees.

The results of the analysis suggests that grain producers could expect to incur approximately half of the burden of increasing waterway user fees. This finding was consistent with the impact estimate of a later report released by the Congressional Budget Office.

HOW SHOULD WE TRY TO ACHIEVE OUR MACROECONOMIC GOALS:
NOTES FOR A PANEL

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The question of how we should try to achieve our macroeconomic goals can be broken down into a number of subquestions. I indicate some of these below, although the list may well not be exhaustive, and there is presumably considerable disagreement as to which are the key questions.

I. What Are Our Macroeconomic Goals?

I generally give my students the following list, which I have drawn from various sources.

1. Full employment
2. Full production (which encompasses not only the full employment of labor--Goal 1--but also the full utilization of capital and natural resources, and that all these resources be utilized efficiently)
3. Stable price level
4. Rapid economic growth
5. A livable environment and non-exhaustion of natural resources
6. An equitable distribution of income
7. Economic freedom.

Here again the list is not exhaustive and there will certainly be differences of both definition and emphasis.

II. Do Our Macroeconomic Goals Conflict, and if so How Do We Resolve the Conflict?

Certainly a conflict has often been perceived between the first and third goals--in its most stark form this was expressed by the pre-natural-rate-hypothesis Phillips curve. The now widely accepted natural rate hypothesis limits this conflict to the short run. If one accepts the rational expectations hypothesis as well and adds some further assumptions, one arrives at the "policy ineffectiveness proposition" and the conflict effectively disappears. This remains an area of dispute, and other answers are possible as well.

Similarly, early in the debate on growth, pollution, etc. a rather stark conflict was seen between the fourth and fifth goals. Here again the nature of the conflict is in dispute. If economic activity were frozen at its present state pollutants would still be emitted and nat-

ural resources still be used up at present rates. To prevent natural resource exhaustion solely by limiting output it would be necessary, for example, to give up all fossil fuel power. The other approach is, of course, through technology. At first glance it might seem obviously desirable to slow economic growth so as to limit pollution and conserve resources while more advanced technology is developed. However, the development of new technology is expensive. It appears quite possible that both private investment and the political support for public investment in new technology are more apt to be forthcoming in a rapidly growing economy than in a static one where such investment would have to lower consumption.

III. What Sorts of Crucial Knowledge (if any) Are Lacking and/or Disputed?

If one had identified a list of macroeconomic goals and a description of the tradeoffs one was willing to make in case of conflict between them, would one be able to specify how to pursue the goals? Even aside from the questions raised in Section II about the (possible) conflicts between goals, it is not at all obvious that one could so specify, and certainly not that one could obtain agreement that the specification was correct. Assuming some knowledge needed for such a specification is lacking and/or disputed, of what sort is it--theoretical economic, empirical economic, political, or something else? The Keynesian-monetarist debate, with its frequently shifting ground and disagreement as to just what the disagreement has been about, suggests that the answer to this question may not be easy to obtain.

IV. Can These Gaps or Disputes Be Settled and If So, How?

Now we come to the final question. Given the questions discussed above, and given the competing schools of macroeconomic thought, which differ in methodology as well as in other ways, how can a research agenda be devised that would lead us to a consensus view of macroeconomic policy--that is, of how we should try to achieve our macroeconomic goals?

SOME THOUGHTS ON UTILITY, PRODUCTION, AND MACROECONOMICS

J. Kirker Stephens
University of Oklahoma

The present paper is not a finished work. It is, rather, a preliminary exploration of material that may eventually become a part of a book. I began working on this because I had developed a dissatisfaction with some of the basic elements of macroeconomics--a suspicion that important factors are left out at a very basic level in formulating the utility and production functions.

It is ancient folk wisdom that money can't buy happiness. But the usual arguments of the utility function--consumption of goods and service (and sometimes leisure)--can be bought for money. This suggests that if the utility function is really to represent what people maximize, it needs to have additional arguments in it--at least some of them representing things which cannot be bought for money.

Despite Thomas Jefferson's dictum that, "all men are created equal," it is clear that all people are not created identical. However, it is a fairly common feature in economic modelling to assume that all people have identical utility functions--or at least not to make much use of the fact that they don't.

I try to group people into a number of psychological classes, to identify these classes by the nature of the utility functions of their members as well as descriptively and to begin to explore some of the implications of this for macroeconomics.

I begin by replacing the usual assumption that all individuals are effectively alike with the assumption that people may be divided into seven psychological types. Obviously any such division will be somewhat arbitrary. Nevertheless, such a set of psychological types may be a more illuminating framework than failing to subdivide people at all.

I list and briefly verbally describe these types below.

1. Receivers: prefer to simply receive income, but will work for it if necessary.
2. Rulers: keep receivers working and nastys in line.
3. Entrepreneurs: accept, may even enjoy, risk taking innovation. Creators and builders of business.
4. Nastys: prefer to seize income, at extreme actually enjoy hurting others.
5. Idealists: believe in perfectability. To the

extent people follow their teachings society may well improve, but if they come to power (briefly) it is likely to be disastrous because the receivers will quit work and the nastys will get out of control.

6. Producers-for-fun: produce because they enjoy it (frequently artists, etc.).
7. Pay-your-own-wayers: produce because it would be unfairly "taking" from the society to take without producing.

Next I set up a utility function with seven arguments rather than the usual one or two. The function is: $U = f(C, Se, F, Co, St, Pow, L)$ where C is consumption, Se is security, F is freedom, Co is community, St is status, Pow is power, and L is leisure. Next I indicate for each group which items are particularly important to them and which items are unimportant.

The production function for output is often expressed as: $Q = f(K, N)$ where K is capital and N is labor. I replace this with a production function $Q = g(K, H, N, D, R, T, E, M, X, IF)$ where K is physical capital, H is human capital, N is "pure" or "raw" labor, D is land (fixed in quantity, also includes pollution emissions if so fixed), R is natural resources (in some cases decreasing in quantity, also includes pollution emissions if they need to decrease), T is technology, E is entrepreneurship, M is management, X is X-efficiency, and IF is the institutional framework.

To "complete" this part of the model it would be necessary to provide a description of the determination of the rates of growth of the factors appearing in this production function, to provide a description of the determination of the degree to which full production is achieved, and, where relevant, to provide "production functions" for the arguments of the utility functions other than consumption.

Part of this process may be handleable in a relatively simple way. For example, the growth of N might be taken to be at an exogenous constant or declining exponential rate. Part will be considerably more complex. For example technical progress could be represented as depending on entrepreneurship (a la Schumpeter), on the integral of past investment (as in learning-by-doing models), on research and development, and on the prices and quantities of inputs to the production process (as in the invention possibility frontier models).

My reason for presenting this work now is to get the reactions of others to the approach and to urge them to consider what the implications of such complexities in utility and production functions may be.

**"What Monetary Policy Can Do
In Order to Achieve Our
Macroeconomic Goals"**

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Many of us would agree that the Fed's lack of complete control of the money stock is the root of all evil. Money does matter. Too much money in the system causes inflation and too few dollars shuts off expansion and growth and causes unemployment to rise. Furthermore, volatility in money growth presents others problems as well, such as: (1) high and volatile interest rates; (2) financial market disturbances; (3) expectations and forecasts which are off-track, and (4) general uncertainty in the economy.

Any improvement in the controllability of the money supply is related to the use of the proper target at the operating stage, and the system of reserve accounting. For example, the combination of a nonborrowed reserves target and a contemporaneous reserve accounting system has been shown to decrease deviations in the money supply and the interest rate.

At the present time both of these improvements are in place. On October 6, 1979, the Fed switched its operating target from the Federal funds rate to the level of nonborrowed reserves and just recently, on February 2, 1984, the system changed to contemporaneous reserve accounting. Therefore, shouldn't we now expect better control over the money stock? Perhaps, it is too early to tell on the case for contemporaneous reserve accounting, but we do have enough empirical evidence to evaluate the 1979 change.

As I see it, there was a great need for the explicit change in policy in 1979. With the interest rate as the operating target, it was clear, both theoretically and empirically, that the money supply would experience increased fluctuation. In response to changes in money demand, the money supply would have to change in order to maintain the interest rate at the desired target level. This result clearly was expected given the evidence from the FOMC minutes during much of the 1970's. The volatility in the money supply and its unexpected positive surprises can be blamed, and I believe in large part, for the bouts of continued inflation and recession experienced during the past decade.

After October 6, 1979, the system was expected to produce smaller deviations in the money supply and wider deviations in the Federal funds rate. As expected, the Federal funds rate and other rates as well became more volatile and reached new highs. However, the actual Fed funds rate still was inside its tolerance range nearly all of the time. Clearly, with more volatility expected in the

funds rate, the range should be wider. We would also expect, because of the increased uncertainty and volatility, that the actual rate would miss its range more often. At any rate, the post-October, 1979 record for the Fed funds rate hitting within its target range looks very much like the pre-October, 1979 record, a result which I think is more than just a little curious.

I believe this result is connected to the Fed's basic preoccupation with the reduction of financial market disturbances. During most of the 1970's, interest rate fluctuations, week-to-week, month-to-month, were at a minimum. In the 1980's, while the Fed allowed more fluctuation in interest rates, they put a limit on how much fluctuation the Fed would tolerate. By not allowing the interest rate to seek its market clearing level, the Fed effectively gave up some of its control over the money supply, and recent evidence casts doubt on any improvement in controllability of the money stock.

Despite the fact that the Fed must contend with the operations of fiscal policy and exogenous shocks to the system, the Fed can do certain things that would put itself in a better position to achieve our macroeconomic goals:

- (1) The Fed should resist the temptation to minimize interest rate fluctuation on behalf of reducing financial market disturbances. This has not proven to be effective policy in the long run, since many of the actions taken to change the money supply by enough to reduce interest rate fluctuation on one hand have produced other uncertainties in the system.
- (2) The Fed should resist the political pressures put on it to monetize the government debt. This one is very difficult in practice since giving in to the pressure and monetizing the debt is inflationary and yet the continued sale of government securities will put upward strain on interest rates unless the Fed cooperates somehow.
- (3) The Fed should utilize better the tools it has at hand and those system changes that have already been put into place in order to reach its goal of better money supply control and to reduce money supply volatility.
- (4) Lastly, the Fed has a credibility problem which it must improve. It has been guilty of saying one thing and doing another. The lack of credibility only produces more uncertainty for all participants in the market. I believe that reducing uncertainty in this and other ways, by monetary and fiscal policymakers alike, can help put us on the right road toward achieving our macroeconomic goals.

DEVELOPING AN INSTRUMENT FOR A PERIODIC REGIONAL
SURVEY OF THE DISTRIBUTION INFRASTRUCTURE

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A university center for business research has proposed to initiate a quarterly survey of the levels of activity in wholesale distribution and freight transportation. Firms in these broad categories are considered to constitute the distribution infrastructure of the region. Information from such a study is necessary to measure the effectiveness of policies which encourage the development of distribution facilities and services in the region. The required data should indicate levels of business volume, employment within the sector, capacity utilization, and expectations for the coming period. It was recognized that much data in these categories would be considered confidential by the firms to be surveyed. This paper describes the development of a pilot study to determine the specific types of data that businesses in transportation and distribution would be willing to furnish on a quarterly basis.

A twenty-four item questionnaire was mailed to sixty-four regional firms in the transportation and wholesale trades. Most of the questions asked firms to respond "Yes," "No," or "Not applicable" to their willingness to provide information about topics such as quarterly sales, cubic feet of storage space, number of car loads shipped, types of products, labor expenses, number of employees, etc. Useable responses were received from thirty-eight firms. A frequency count provided a ranking of the data items which would be most acceptable for responding by the participants. The corresponding questions were then reviewed for their coverage of volume, employment, capacity use and expectations; redundant coverage was removed. The resulting instrument was considered to be more likely to elicit responses because it is brief and contains few questions known to be overly sensitive, while providing data on the specific areas required.

FROM VEBLEN TO KEYNES: MUTED VERSUS
CLARION CALLS FOR ACTION: A COMMENT

Wm. Doyle Smith

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Professor Hans Jensen's paper (2) is well-written and extremely interesting. In the paper, the author indicates and discusses in detail (90 pages) several similarities between the ideas of Keynes and Veblen. Both economists were historians, philosophers, and sociologists and both saw an inherently unstable economy tending toward unemployment and depression. In addition, both Keynes and Veblen saw historical events and technological changes having important influences upon economic events and economic thought. Keynes and Veblen, however, had "diametrically" opposite views about the making of recommendation concerning policy and reform. Where Veblen failed to make any recommendations or calls for institutional reform, Keynes was more of a social economist in that he made policy recommendations and proposals for institutional changes and social reform.

Noted historian E. H. Carr maintains "history is a continuous process of interaction between historian and his facts, an unending dialogue between the present and the past" (1,35). Carr suggests that every generation must rewrite history. Professor Jensen's work demonstrates the same is true for the economic science. This generation of economists must reexamine the works of Keynes and Veblen, as well as other past economists, in order to reinterpret, reassess, and reevaluate the relevance and importance of their ideas on today's economic problems and issues. This is important because each generation is influenced by and shaped by a new environment, different intellectual peers, and by different customs and passions.

Professor Jensen's paper also demonstrates the important need for an interdisciplinary approach. Via the examination of the works of Keynes and Veblen, the author reveals the true eclectic role of the economist as part historian, part philosopher, and part sociologist. The paper reinforces the concept that the creation of and understanding of economic theory requires a basic knowledge of history, philosophy, and sociology. Economics is the study of human behavior. Consequently, the understanding of economics requires not only a knowledge of economics but also a basic understanding of history, philosophy, and sociology.

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1. Carr, E.H. What is History? New York: Vintage Books, 1961.
2. Jensen, Hans E., "From Veblen to Keynes: Muted Versus Clarion Calls for Action." A paper presented at the Southwestern Economic Association Meetings, March 1984.

DO DEFICITS MATTER? WHAT THE
LITERATURE SHOWS: A COMMENT

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Professor Kathie S. Gilbert's paper, "Do Deficits Matter? What the Literature Shows," represents an excellent review of the literature pertaining to the current concern and debate over the role and importance of the national deficit. The concern over the deficit is vital because the issue transcends both economics and politics. The financing of a national deficit via bond-financing relative to the financing of the deficit via the expansion of the money supply has important economic consequences because of the potential pressure and impact that the two types of financing has upon inflation and interest rates. If the deficit is bond financed, there is direct pressure on real interest rates via the financial markets. If the deficit is financed through expansion of the money supply, not only is there a renewed danger of inflation but there is also direct pressure on nominal rates via expectations of inflation and a higher inflation premium.

The concern over the national deficit and its potential impact upon the economy is also crucial because of the political debate over the success or failure of Reaganomics. Reaganomics called for a reduction in the marginal tax rates in order to produce greater incentives to invest, save, and work and, consequently, to generate higher levels of national income in the long-run. The higher levels of income would support a higher total tax revenue and would work to lower the deficit even though marginal tax rates had been reduced and even though the deficit might increase in the short-run. Unfortunately, expectations and perceptions based on larger deficits, even in the short-run, appear to have had a tremendous impact upon the economy, in general, and on the financial market, in particular. Because a larger deficit has lead to expectations of higher inflation and higher interest rates, the financial markets have not responded as hoped for by the Reagan Administration.

The obvious answer to the question as to whether or not deficits matter is that deficits do matter. If for no other reason, deficits matter because it makes a difference how the deficit is financed. An important question, however, is what is the actual impact of the deficit upon the economy and just how significant and strong is that impact on inflation and interests rates. Given that deficits are important and should be reduced, an additional question is whether the reduction should come about via a lowering of government expenditures or through higher taxes. Even though Professor Gilbert's paper did not directly addresses these questions, the paper does represent an excellent presentation of the basic issues and problems concerning the deficit.

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