

MACROECONOMICS 201
Spring 2020
NOTES 12

STABILIZATION: METHODS, CONFLICTS, DISAGREEMENTS, AND OBSERVATIONS

Reading Assignments:

Principles of Economics: Chapter 14, Chapter 26 (section .2)
Madariaga: 30,31

Clearly, modern economies wish to achieve a low level of unemployment, a low level of inflation, and rising annual economic growth. Equally clearly, there are many *fiscal* (spending and taxing) and *monetary* tools which can help achieve these goals, *if* used in a wise and timely fashion. There are few economists who deny that these tools can be used to alter AD (or AE). In that sense, most economists are Keynesians, even though they may not agree with the specific policy recommendations that Keynes made during the depth of the great depression of the 1930's.

Why then, is there so much controversies over which of these many tools to use, how extensive their use should be, and the timing of their use.

1. How successful has Macroeconomic policies been in stabilizing the economy?

But first, we should note, stabilization policy since WWII has been reasonably successful, at least up until the time of the recent recession, primarily in terms of limiting unemployment and inflation to “tolerable” (sometimes barely) levels. We have not had the massive unemployment that people who lived through the great depression of the 1930s feared, nor have we had runaway inflation. Perhaps this should be qualified by noting that we have been less successful in these areas than it was hoped we would be at the end of WWII and the increasing acceptance of Keynesian thinking at that time. This phenomenon is currently being investigated in detail by economists. By no means have we solved the problems of poverty and joblessness in this country.

And, it must be noted that beginning immediately after WWII, the country began a slow inflation that been continuous ever since (with a few ups and downs) and that shows no sign of abating, a source of continuing controversy. Inflation has been progressing at roughly 2-3% per year, and this has become an acceptable rate of inflation to most central banks around the world, including the Federal Reserve in the U.S.

We, in the U.S. have managed to keep inflation down to approximately the 2-3% level (over time) in several ways, among which are:
start

- We imported cheap labor to keep the costs of production down;
- We imported cheap merchandise from other countries (always complaining, of course, that it undercuts U.S. manufacturers and U.S. employment levels);
- There have been remarkable improvements in productivity that has allowed us to produce goods and services cheaper and sell them for less. For example, the use of secretaries for executives has plummeted due to the use of word processors.

This is unlikely to continue indefinitely. Despite the current emotional dialogue over immigration, the ability of this country to continue accepting vast numbers of impoverished immigrants is limited, and increasingly draconian laws to limit immigration may loom in the future, in fact, may be on the horizon (words written ten years ago), in fact, have already occurred. Moreover, it is foolish to believe that people who work for low wages when they first come will be content to work for those wages any longer than they must; and most of their children will almost certainly aspire to higher wages and better jobs. Further, the willingness of countries like China and India to subsidize the U.S. standard of living is also unlikely to last forever. Prices of foreign goods will rise, and possibly quite substantially, particularly if restrictive tariffs are imposed. Finally, productivity changes tend to run in cycles and we are in a cycle that benefitted from computer technology which has made possible major improvements in efficiency. This cannot be guaranteed to continue (although *no end* currently appears in sight). This undoubtedly is because we have so many talented people doing research as compared to the past (although we could have many more if we improved our educational system and made it more accessible (i.e. affordable),

On the unemployment side, it must be noted that we have recently emerged from a recession that is the most severe since the end of WWII and our ability to put the economy back to its former low level of unemployment *and* distribution of income was severely tested. Economists, using a technical definition (developed by the National Bureau of Economic Research), may tell you that a recession is over, but the economy will not be fully healed as long as there continues to be an unacceptably high level of unemployment (perhaps we should substitute the term “unacceptably low labor force participation rate), or too many people working part-time because they cannot find full-time work, or too many people on low wage jobs who have the potential to do much better, problems which still exist. .

Moreover, even if the level of unemployment declines, we still must deal with the growing number of working age Americans who lack the skills to obtain reasonably high earnings in an increasingly technical economy. This latter problem cannot be resolved solely by fiscal and monetary policies to increase aggregate demand. We must improve our vocational, apprentice, and other skills creating activities, our educational system, and our health care system.

As a final note, the value of the dollar relative to the money employed by other countries will probably eventually decline, albeit slowly. When this happens, it causes considerable chagrin among many people, but is probably necessary if the United States is to reduce the current unfavorable balance of payments where we are importing more than we are exporting. A declining (depreciating) dollar means that we must pay more dollars for the currency of other countries, raising the prices to Americans of importing their goods, and ultimately reducing the level of imports. It also means that persons in other countries have to give up less of their currency to obtain U.S. dollars, effectively lowering the prices they must pay in terms of their currency to import U.S. goods, and consequently increasing the level of U.S. exports. Our insistence on more balanced trade might hasten (hopefully) this transition.

2. How effective on the goals of stable prices and reducing unemployment is fiscal policy, i.e., lowering taxes or increasing public expenditures

As noted above, we have done fairly well since the great depression of the 1930's, at least until the great recession. But a changing, and increasingly technical, economy is leading to difficulties in dealing with the root cause of inflation and unemployment, and simply altering AD will not suffice. Some preliminary thoughts on this issue follow:

1. As we have previously discussed, **some unemployed individuals cannot be helped to find**

jobs simply by increasing aggregate demand. In cases of a mismatch between job requirements and job skills, the government needs to operate additional programs such as assistance in helping people needing jobs to locate available jobs, and assistance in training workers for jobs, short run solutions. In the long run we must improve our educational and health care systems. Unfortunately, the effectiveness of most current programs to assist low-skilled individuals to find meaningful employment is very controversial and some analysts have concluded that some training programs lead to poor vocational results, e.g., low earnings, poor job security, lack of fringe benefits, and limited hours of work. Resolving these and many other employment related problems in a very rudimentary stage, and will require a long time.

2. Similarly, we cannot expect to solve inflationary issues solely by reducing AD if there is significant *cost-push* inflation, e.g., say due to rapidly rising wages or rising prices of energy (which we will probably face some day) and other natural resources, or imported goods. Reducing AD may reduce some prices, but probably at the expense of rising unemployment. Reducing cost-push inflation is best accomplished by improvements in the productivity of workers. And perhaps by lowering the costs of some goods by promoting freer trade, in particular, by reducing tariffs which inevitably increase prices.

3. I think that it is unlikely that we will see stable or declining prices in the future. Most policy-makers would be happy to keep price levels from growing too rapidly. Prices are heavily dependent on wage levels and it is very difficult to reduce wages. Workers are likely to resist a decrease in wages, especially in the short-run, especially if they have mortgage payments and other debt that would not decline equivalently because they are fixed in dollar amounts. This doesn't mean that wage reductions will not happen. But it usually requires a very long period of time and/or very significant shifts in the economy. For example, if large numbers of workers at high wage companies lose their jobs, it is probable that many will be re-employed at substantially lower wages, but for many it will only be after a substantial period of time and they have given up on maintaining their previous wages. We have seen this happen in the past (e.g., air traffic controllers) and it appears to occur more often in a nonunionized economy such as currently exists in the U.S.

About the only way that you can expect to see lower prices is if there is some technological breakthrough that greatly lowers the cost of production, e.g., consider the way that electronic appliances have been declining in price over the years, or if there is a dramatic rise in long-term unemployment and workers become desperate.

Some people fear that we may encounter significant inflation as we fully and finally recover from the great recession. This is partly because of the enormous amount of lendable reserves that banks are holding and which may be available to fuel spending if peoples' confidence in the economy strengthens. The economic stimulus resulting from our enormous deficit in the federal budget will almost certainly also contribute to inflation.

3. Why do economists and policy makers disagree on the best policies to stabilize the economy?

One thing is clear. Economists, politicians, policy-makers, pundits and others, despite most having taken at least a survey course in macroeconomic theory, disagree widely on the steps that should be taken to stabilize the economy. Do some of these individuals fail to understand what was taught, were some given bad instruction, or are many simply in error? Not necessarily any of these. There are many valid reasons why knowledgeable people, vitally concerned for the well-being of the country and its

inhabitants, might disagree with each other.

In fact, it usually is not that someone is clearly wrong, but that there is disagreement over which set of policies will eventually do the most good or which correspond most closely to social values. Only time, much more research, experimentation, and experience, will tell.

What are the reasons why there is so much disagreement?

A. First problem - conflicts among social goals

Recall the generally agreed upon goals of Macroeconomic policy that we described earlier.

- A. Maintaining a high level of employment (minimizing unemployment)
- B. Maintaining a low rate of inflation
- C. Maintaining a steady rate of economic growth
- D. Eliminating, or at least reducing, poverty
- E. Assuring a more equitable distribution of income according to some *not universally accepted* standard - in fact, it appears to be becoming more unequal in the U.S.
- F. Maintaining mutually advantageous international trade.

To this list we should probably/maybe add two more in view of current political conflicts.

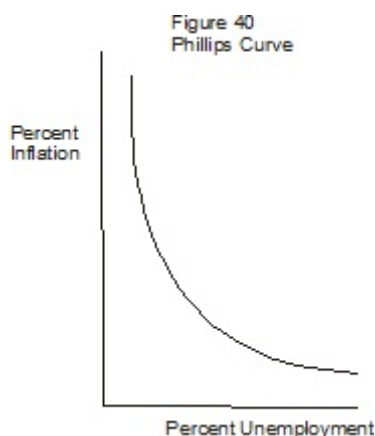
G. **Roughly** balance the Federal budget, (but not necessarily each year, perhaps over the business cycle) - an issue likely to become important if Trump lose re-election.

H. Expand/maintain health coverage (*very* controversial, at least until more people begin losing their existing coverage).

Unfortunately, efforts that are made to enhance the achievement of any one of the above social goals often have negative effects on one or more of the other goals, which necessitates that choices be made as to which goals are most important. Knowledgeable and sincere people may disagree on their preferred choices.

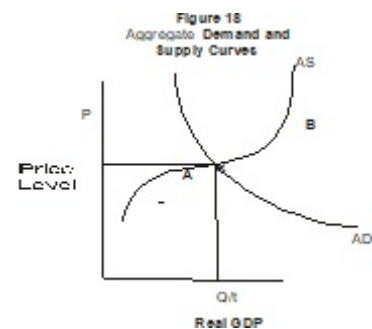
What are *some* of the conflicts that exist among macroeconomic goals.

I. Lower unemployment or lower inflation:



One of the most widely discussed, and well-known conflicts is the tradeoff between inflation and unemployment. You will recall from our discussion/description of AS that at some points on the AS curve (probably most), as real GDP expands, price levels also rise (see Figure 18). The assumed shape of much of the AS curve makes it clear that at some point reducing unemployment comes at the expense of rising inflation.

This tradeoff between inflation and unemployment has been understood for many years. In fact, this knowledge dates to well before the famous **Phillips Curve**. The Phillips curve was popularized in a study, published in 1958, that compared rates of unemployment with



rates of inflation in England. It was found, to no ones surprise, that the unemployment rate tended to be lower as the annual rate of inflation rose. Presumably inflation rose when there was a strong demand for goods and services causing inflation to increase, and unemployment to fall. Be sure you can distinguish the Phillips curve from the Laffer Curve discussed in notes 11.

The chart was drawn roughly as shown in figure 40 and is consistent with the way that we have drawn the AS curve. This conflict is seemingly unavoidable. In boom times, as prices begin to rise and the available number of workers for hire becomes smaller and smaller, producers begin to bid up the wages of workers, particularly those whose skills are in short supply. Note that wages can be bid up for some skilled workers, increasing production costs, even though there are other workers, usually unskilled, who cannot find jobs. Other factor prices will also be bid up when AD is strong as available supplies of raw materials decline causing prices to rise and shifting the AS curve upward (or to the left) further exacerbating inflation. Even during the recent great recession, prices crept up slowly, consider college tuition, medical and dental services.

Although this tradeoff between inflation and unemployment is probably the most important conflict among macroeconomic goals, other conflicts should be briefly mentioned.

ii. Higher taxes on the wealthy *may* interfere with savings, investment and work incentives (allegedly), reducing economic growth and market efficiency. On the other hand, lower taxes on the wealthy may skew the distribution of after tax income towards the rich, leading to greater income inequality. How do you think recent tax changes/reforms in the U.S. will affect these variables?

iii. Reducing poverty by expanding public welfare and other transfer payments may lead to higher taxes and reduce economic growth, by reducing investment and impeding the incentives to work (a long standing issue which has certainly occurred among some individuals, usually those with low earning ability)).

iv. In times of recession, stimulating AD may lead to higher federal deficits and a rise in the national debt, an issue that has always caused enormous controversy, depending upon which political party is in power.- although the greatest national deficits have originated from the party most closely associated with fiscal responsibility was in power..

v. Expanding the money supply to stimulate AD in times of recession *may* eventually lead to inflation, which will effectively devalue the dollar and negatively affect our export industries by making U.S. goods more expensive.

Many other potential conflicts could be identified. Just remember that enhancing one social goal often has negative effects on one or more other social goals.

B. Second problem - different values, philosophical differences

Economists and most other people often disagree because they have different values as to which goals are most important and hence on the types of stabilization policies that should be pursued. Inevitably, there are individuals who are adamantly against certain public policies, e.g., raising taxes, increasing the size of public sector, increasing the public debt, etc., regardless of any other consideration. They will stand against any such proposal without consideration of any potential beneficial effects of such proposal, and sometimes to the great detriment of public policy, e.g., refusing to vote for an increase in

taxes to reduce the deficit, refusing to vote for a decrease in farm subsidies, refusing to vote for reform in entitlements.

Read between the lines when reading newspaper stories. Remember, some people (including trained economists) will want to take action to avoid rising inflation, or a rapidly rising national debt, or rising unemployment at lower levels of these variables than others. This is an issue of differing values. Remember, there is no better or worse when it comes to values; one person's opinion is as good as any other persons, regardless of how much they may differ or how distasteful some opinions/values may seem to you.

C. Third Problem - political and bureaucratic incentives

This is a particular problem in changing spending or taxing policy, and of rather minor importance in the case of monetary policy. The process of changing spending or taxing is cumbersome and lengthy. Consider an increase in government spending. Congress must first pass an act **authorizing** the ways in which the increased spending will take place. Then it must pass an act **appropriating** the money. Both an authorization act and the appropriations act may take months as various committees review the acts and opponents can often block or delay passage of the program at some point in the process. Even if successfully implemented, the President must sign it, which on occasion, will not be done.

But *it isn't over yet*. There may be long delays in implementing the program by the federal bureaucracy. Regulations have to be written which can take a year or more. In addition, many Federal spending programs are funneled through State and local programs (e.g., vocational training programs, road construction) which have their own lengthy process. The entire process, from introduction of the original act to final initiation by the bureaucracy can take two years or longer. Or in the case of the Affordable Care Act, over four years.

The passage of the stimulus bill in 2009 was a marvel of speed aided by a national emergency and a preponderance of Democrats in congress and the support of a Republican president and cabinet, Even then, it barely made it through as multitudinous politicians quibbled over its provisions and bargained over "goodies for their constituents." And it still ran into hurdles and delays as it was implemented. One of the criticisms of the stimulus package is that it was not as effective as hoped. One of the reasons for the lack of effectiveness was the very long delays in disbursing the money spent even after initial approval by Congress and the President.

Passage of changes in taxes are equally cumbersome as bills have to be passed, a lengthy and contentious task. Even after passage, regulations have to be written (often requiring a year or more).

Several other political issues need to be mentioned. First, politicians often vote with an eye to how their vote will affect the likelihood that people will vote for them in the next election (think of the gun bill, farm subsidies, and the desire to show how conservative they are). Moreover, it is clearly easier to get politicians to vote for spending increases or tax decreases, than to vote for spending reductions or tax increases. This often results in fiscal irresponsibility, as is obvious from an examination of Federal spending and taxation since WWII.

Second, there are many self-serving constituencies who will seek to twist public legislation to their advantage. For example, reductions in farm subsidies invariably face great resistance by farm state politicians, regardless of their political affiliation. As another example, any time a public program is

threatened, it is almost certain to run into furious resistance by civil servants whose jobs are threatened, by politicians in whose district the civil servants work and where other government work is carried out, and by private companies and employees who are dependent upon government contracts.

Unfortunately these political problems are likely to cause long and inopportune delays in using fiscal policy (taxing and spending policy) as a tool of macroeconomic policy. These delays are one reason why you sometimes hear me say that the federal government is dysfunctional when it comes to implementing steps to deal with unemployment or inflation. Actually, these political problems are one reason why some economists have argued that macroeconomic policy using fiscal measures (tax or spending policy) is ineffective - they argue that by the time that Congress can finally agree on steps to deal with macroeconomic problems, and the bureaucracy can implement these steps, the problems that they were meant to solve may be over (or may have worsened). It is important that you remember this important point. It **may** show up on an exam.

Fourth problem. Effectiveness and Duration of Macroeconomic Measures

There is great uncertainty about how effective each stabilization activity would be; and how long would it take before the stabilization activity would begin to take full effect. Consider the following:

- We know that lower taxes should stimulate spending. We are much less sure by how much it would increase spending, or how long it would be before the increased disposable income would be spent on consumption or investment. We can make general statements, e.g., increased income to persons with lower income would be spent faster than increased income to persons with higher income, but there is great disagreement (uncertainly) over how large the increased spending would be or how long it would take for all increased spending to occur.
- We know that more spending by government will pump more money into the economy, which may have a multiplier effect, but have little notion of how large the multiplier will be, or how long it would take to be fully implemented, or how it changes over time.

One reason why it is difficult to determine the likely effectiveness of a given policy is that its effectiveness will *vary* over time due to a multitude of factors. One of the most important of these factors is "**expectations.**" For example if the economy is perking along at a relatively high level of employment and consumption, then reducing taxes will probably have a stronger effect on spending than if the economy is sinking into a recession and people are cutting back on spending. As another example, consider the recent bailouts of banks. Normally, if banks have excess reserves, then they, in the interest of making profits, will lower interest rates and increase loans. But, in the effort to bail out banks at the beginning of the great recession, banks were so concerned with their liquidity positions and so pessimistic about the prospects that some potential borrowers would actually repay the loans, that they greatly reduced their lending even after the government infusion of considerable amounts of new money/reserves that they could lend.

We can conclude that the various spending and tax policies that we have discussed will cause shifts in the AD curve. But the size of the shift, and the rate at which AD shifts, are unclear. Moreover the size of the shifts and the speed of the shifts will vary over time depending on variables such as expectations, changing technology, changing income distributions, changing demographics, etc. A few years ago, just before the beginning of the Great Recession, people were optimistic and were spending at record levels, and then in a short time, they became pessimistic and the AD curve shifted significantly to

the left (not the only reason for the shift) greatly reducing spending.

4. Recap and further comments on values: There are literally dozens of different ways in which fiscal policies could be implemented to achieve macroeconomic goals, e.g., any number of public programs could be expanded or contracted, and many different tax policies could be enacted. Is it any wonder that given all of the conflicts and uncertainties and differing values that exist, that economists and most other people differ widely on which economic policies should be followed and that elections are sometimes very bitter as candidates espouse different policies..

Although, it is rare that one person's belief are clearly better than, or inferior to, those of another person, it is worth emphasizing that the positions that people take often are influenced by their personal circumstances and how they would be affected by different policies. As some rather obvious examples:

- Persons who are unemployed may place more emphasis on decreasing unemployment rather than on containing inflation or balancing the budget.
- Persons in high paying jobs, especially if they are stable, may be more concerned with keeping taxes low than in decreasing unemployment.
- Persons with a large portion of their assets in cash or bonds or other similar assets may be more concerned with containing inflation than with decreasing unemployment.

Economists, of course, are above these and other such petty squabbles (I hear laughing).

However, it may be useful to briefly review why economists (and others) may disagree on the most effective policies. The following largely repeats what has already been written above.

Public Spending: Some analysts feel that it takes too long to get needed legislation through congress, too long before the legislation results in tangible effects on expenditures, too difficult to determine how effective expanding or decreasing different types of activities will be, and to top it all off, analysts often differ in the types of expenditures that are most needed, e.g., better roads, better health care, or greater defense spending. And of course, there are people who feel that any public spending is socialistic/sinful and should be avoided.

Federal taxation: Many of the same problems exist as under government spending. Legislation to change taxes must be debated and passed. Then the treasury must take action to implement the changes. This may take months before people see a change in their after tax income. Moreover, the effectiveness of changing taxes depends heavily on who benefits from the tax change: is it focused on persons with low income or persons with high incomes. Finally, people cannot agree on whose taxes should be increased or decreased.

Monetary policy: Changes in monetary policy can be quickly established through the Federal Reserve. But, it takes time for people to adjust to changes in the availability of funds and changing interest rates. You are unlikely, for example, to immediately rush out and buy a new car just because the monthly payment may decline somewhat due to lower interest rates. A few people will, and the number of people who will buy new cars or who will invest in physical goods, (or other expensive items), will increase even more over time, but it could be many months before the full effects of changes in monetary policy are

realized.

5. Two broad philosophical schools.

As noted above, economists and others differ significantly on which policies to follow to control unemployment and inflation. Here, I want to briefly point out briefly two **broad** approaches to macroeconomic policy.

A. **Keynesian approach:** You often hear some economists described as Keynesians (although these so-called Keynesian economists often disagree vigorously with each other). Sometimes you hear nonsense such that someone is a Keynesian because he or she believes in spending their way out of a recession by greatly increasing public spending.

I would rather consider Keynesians as economists who believe that *we should try to minimize the damaging effects of these ups and downs by judicious use of periodic changes in fiscal and monetary policies*. This was sometimes called “fine-tuning” the economy. Of course, most Keynesian economists are well aware of the uncertainties as to the effectiveness of different macroeconomic stabilization policies. Many economists, I believe, accept the “**nudge**” (my term) approach. As an example, if you follow the activities of the Federal Reserve, you see a continuous adjustment of monetary policy to meet changing economic needs. These periodic changes (the nudges) are much less likely to occur in a timely fashion in the public sector because of the political and bureaucratic problems described above

B. *Monetarist approach/neoclassical approach:*

Some economists are very skeptical of the ability of government to manage the economy well, even using monetary policy. They were led by economists at the University of Chicago, most notably Milton Friedman, a Nobel prize winner. These economists were a major factor in steering Keynesian economists toward paying more attention to monetary policy during the 1950's and 1960's.

Monetarist/neoclassical economists are skeptical about the ability of Federal activities - government spending, taxes, and even monetary policy - to be initiated in time to make a meaningful impact on inflation or unemployment. It was even argued that the Federal Reserve, the federal agency that manages the monetary system in the U.S., despite having the ability to make gradual changes, has frequently followed policies that were too aggressive, or too passive, and ended up making the problems worse, e.g., lowering interest rates too much, or not enough to solve the problem, or to solve the problem in a timely fashion.

On the other hand, the monetary/neoclassical theorists usually had great faith in the ability of the free market to resolve problems of inflation and unemployment *if* the economy is given sufficient time. This has led to a major policy divide between Keynesian economists and monetarist/neoclassical economists which is still ongoing. **Strict** monetarist/neoclassical economists are more inclined to wish to:

- balance the budget annually; and
- increase the money supply at a constant rate to correspond with growth in GDP so that the amount of money is just enough to maintain a constant or very slowly rising price level.

They assume that the economy will eventually work its problems out. This appears almost to go back to classical economics in which it was assumed that the economy would always gravitate towards a high level of output and the main economic issue was avoiding inflation which was determined by the money supply. Note that monetarist economists have completed studies which demonstrate that the price level in the U.S. has been closely correlated with the supply of money. But also note that increases in the supply of money have many causes, and that these increases **may** result from efforts to reduce

unemployment (by borrowing and spending) and not reckless monetary policy.

I believe that the critical issue between the monetarist approach and the Keynesian approach is how rapidly the economy will return to a high level of GDP and employment once problems arise if the government continues to simply balance the budget and let the economy recover at its own pace. It is probably true that, in most cases, the economy would eventually recover, but it must be decided whether this justifies living with higher rates of unemployment or inflation for longer periods than some people believe is necessary or desirable, or are willing to tolerate. During the depression, a return to higher levels of GDP and employment was slow, and was clearly jump started by government intervention and then WWII. Few people would want to be without work for very long. Similarly, few people would want rapid inflation to last for very long. This is a crucial issue, My own bias is that I see no assurances that the economy will return to stable, prosperous times in an *acceptable* period of time in all cases of excessive inflation or unemployment if we adhere strictly to a policy of a balanced budget. Consider the lengthy period of time of excessive unemployment during the recent great recession in this country despite the large deficit that the Federal government incurred. Would more job creating stimulus have been desirable? One wonders if current and prospective government policies have amounted to writing off the employment prospects and well being of some people, mainly poor people with limited skills Also consider the very high unemployment levels of countries in the European Union where price stability has a high priority.

Nevertheless, monetarist economists **may** be willing to wait longer, and accept higher levels of unemployment or inflation than Keynesian economists, before taking positive actions. But I doubt if very many economists, of whatever persuasion, would be willing to wait out a serious depression or hyperinflation without some level of public intervention.

The most important difference between what is described as the Keynesian approach and the monetarist/neoclassical approach is really between those who favor an activist approach (the Keynesians) and those who would favor a less activist approach (the monetarists). In the real world, there is a continuum among economists, some of whom favor a very active public policy on one end of the continuum, and economists who favor very little activism at the other end. There are economists who fall upon every point on this continuum. As always, it is very difficult and probably not very useful to pigeonhole people into specific categories. The opinions of economists, like everyone else, vary widely. You should learn to focus on issues, not labels.

6. Policy considerations:

It is important to emphasize that most people will have different opinions on the most appropriate stabilization tools, and their opinions will vary depending upon the depth of the recession, or the severity of the inflation.

The following are speculative observations which I would love to have you differ with.

I expect that *almost* all economists would rather rely on automatic stabilizers and monetary policy, i.e., changing the money supply and the rate of interest, to deal with *moderate* unemployment or *moderate* inflation. It is easy to implement, and free of most political influence (I hope it stays that way). They may argue about how rapidly monetary policy should be implemented, and the level at which open market operations should take place, but are unlikely to argue that taxes or government spending should be significantly changed to deal with moderate inflation or unemployment (unless they have a political agenda). But, if we have high unemployment, I suspect that there will be increasing number of economists favoring a spending stimulus, or reduced taxes (or extended and perhaps increased unemployment benefits), in addition to the continuing use of monetary policy. I believe this will occur regardless of their philosophical bent (although I imagine there would be a great deal of disagreement about what the increased public expenditures should be used for, or who should have their taxes lowered).

Conversely, suppose that in the future, we move into a period of moderately unacceptable inflation, say above 3%, almost certainly monetary policy will be the primary means used to control this inflation. If inflation begins to move toward more catastrophic levels, monetary policy with very high interest rates will, I suspect, still be the method of curtailing inflation. As noted before, inflation went to 10% during the late Carter, and early Reagan presidencies, and monetary policy effectively (painfully to some individuals) reduced inflation at that time.

7. What is the Government Budget constraint that isn't?

Total government spending, G , is necessarily equal to tax revenues, T , government borrowing, B , and the change in the money supply, ΔM .

$$G = T + B + \Delta M. \text{ Remember, } \Delta \text{ stands for the phrase "the change in."}$$

This is a truism, a tautology. It has to be true. If the government doesn't borrow money or tax people, it must, by definition, create money (I suppose there could be some left over funds in the treasury accounts). But it isn't a constraint. The government can theoretically create all of the money it wants. But let us qualify this by noting that, by law, the Fed cannot create money by selling bonds to the U.S. government.

But consider. Suppose the government wants to borrow \$1 billion. It could *sell* treasury bonds to banks or individuals. Although, as noted, the U.S. treasury is not allowed to sell bonds directly to the Federal Reserve, which could just print up money to purchase them, the Federal Reserve could accomplish the equivalent outcome by buying treasury bonds from banks or individuals that purchased these bonds from the Treasury. The FR is not hampered by any silly reserve requirement. At that point, if the U.S. Treasury borrows \$1 billion from the public and the Federal Reserve buys \$1 billion in U.S. securities from the public, then the U.S. Treasury has \$1 billion to spend, The Fed has \$1 billion in treasury bonds, and the nation's bank reserves have increased by \$1 billion, and the nation's money supply by the amount of the \$1 billion in bonds purchased by the nonbank public. This has been accomplished through nothing more than a giant IOU by the fed. Depending on the money multiplier, the money supply may eventually increase by some multiple of the \$1 billion in new reserves as banks seek to lend out the additional excess reserves. There is no limit, other than common sense (which seems to be in short supply during the years during and after President Reagan), to the amount of reserves/money that can be created in this way.

Of course, the Fed could always refuse to purchase additional bonds. What do you think would happen then.

8. Additional thoughts on stabilization policy

- What do we mean by the long-run and the short-run? These are vague concepts. I think the long-run should be defined by the amount of time required for the real value of factor prices (e.g., the level of wages) to change. This concept is critical to the monetarist/neoclassical approach. What should be clear is that for most people, issues about employment, price levels, and other matters affecting their lives are *very* short run. Most people do not like to be unemployed for more than a day or two and they expect the government to take action if prolonged unemployment, or inflation, or other problem, persists.
- Overall, we are probably doing a reasonable job in controlling inflation and unemployment (overlooking the hopefully temporary glitch of the recent great recession), *if*, and this is a big if, you are willing to overlook millions of people with low skills, disabilities, and other problems who are not working (or receive very low wages) and appear to have little prospect of locating significant employment.

- Other macroeconomics goals, e.g., economic growth, reducing poverty, developing an equitable distribution of income must necessarily be dealt with through public programs and tax policy rather than stabilization policy.
- ***The key to effective stabilization policy is the three T's.*** Stabilization intervention, whether by federal spending, taxing, or monetary policy should be, at least in theory, ***timely, targeted, and temporary.*** Unfortunately, at present, stabilization intervention usually takes place only after extensive bickering and negotiation and is rarely timely, often focuses on the pet projects of decision-makers rather than on targeted projects that enable people to find jobs, and are rarely temporary, e.g., consider the Bush tax cuts. Unemployment compensation is the best example of a program that is consistent with the three T's, ***but some people may find it wasteful if it leads to malingering on the part of some recipients. Do not forget the three T's.***

review questions

1. What problems are encountered in implementing fiscal policy to increase employment or reduce inflation
2. Why is monetary policy more likely to be used than fiscal policy?
3. Do economists always know the effectiveness of different policies to increase employment or restrain inflation? How about politicians?
4. Do economists always share the same values in the importance they place on reducing unemployment or restraining inflation? How might this affect their policy recommendations? How about politicians?
5. Do you believe that the government should take an active role in attempting to fine tune the economy to reduce business fluctuations, or do you believe the government should take a less active role and permit the market system to work out problems of inflation and unemployment?
6. Under what conditions of economic distress is the government most likely to turn to fiscal policy, e.g, tax and/or spending policy?
7. What misfortune happens if we try to contain cost push inflation by reducing AD?
8. What are the main differences between the Monetarist approach and the Keynesian approach?
9. Are the goals of restraining inflation and maintaining a low level of unemployment always compatible? If not, why not?
10. Explain how a central bank can create money without limit, and explain how irresponsible expansion of the money supply can severely harm the economy?
11. What is hyperinflation? Name a country in which it occurred.
12. What are the likely obstacles to further reducing unemployment to less than 5%?
13. What are problems in containing inflation?
14. Identify three ways in which the government can obtain the money that it wishes to spend.
15. What is meant by the term "fiscal responsibility" and why is it vital to the well-being of the country?
16. What are the advantages of monetary policy as compared to fiscal policy?
17. Is there any limit to the ability to the Federal Reserve to expand the money supply.
18. Describe how the central government could create money to finance government deficits and eventually cause hyperinflation.
19. What is the Phillips curve show? What type of dilemma does this create for macro-economic policy
20. (Based on the optional material below) What is meant by the term "present value." Suppose a friend offered to pay you \$105 in one year and you could get 5% interest at the bank. What is the most that you would loan this person - show how this would be calculated. Suppose you could get 10%. Would you offer to give the person as much as you would get if you could only get 5% interest. Why or why not?
21. How would you solve the problem of maintaining a high level of employment and a low level of inflation?
22. Give three examples of conflicting priorities/values among macroeconomic goals.
23. What is the most common type of automatic stabilizer and how does it work?

9. Thoughts on an effective macroeconomic policy

You have sometimes heard me describe Federal stabilization policy as dysfunctional, regardless of which party is in the majority. The following are my suggestions for a more rational approach to stabilizing the economy.

- In notes 11, we described a proposal for a *roughly* balanced budget, over the business cycle, based on the tax revenues that would be expected at existing tax rates if the economy achieved a target level of unemployment and inflation. This would compel Congress to practice fiscal responsibility in the sense that any additional spending that is approved would have to be balanced by additional tax revenues (with rare exceptions), or any tax reductions by spending reductions.
- The first stage in stabilization activities would be: 1) unemployment insurance and; 2) the budget surpluses or deficits that would automatically be generated if unemployment went above or below the targeted rate due to the progressive income tax. .
- If this proved insufficient, the next stage in stabilization would be monetary policy that would increase or lower interest rates (through open market operations) depending upon whether the economy was facing excessive inflation or excessive unemployment.
- If this proved insufficient, then a means must be found to change spending or taxes following the three t's, *temporary, targeted, and timely*.

Stabilization Council: Congress cannot be trusted to do this. The process should be made as separate from the political process as possible. The best model, I believe, is for these decisions to be made by a stabilization council similar to the Federal Open Market Committee in the Federal Reserve system. In fact, the stabilization council could be an expanded Federal Open Market Committee. This council would need additional stabilization instruments to change spending and taxes. This needs a lot of thought.

Possible measures that a Stabilization council could use are:

1. A national consumption tax, probably a sales tax, which could be raised or lowered as economic conditions indicate. In fact, changes could even be limited to a particular region of the country if warranted by regional differences in economic needs.

2. On the spending side, the stabilization council would need to be able to quickly initiate relatively small projects, with one or two year time horizons. The council shouldn't need Congressional approval to initiate these projects. I have often thought that the elected senators, congressmen, or state governors could submit such projects for vetting to Congress and such projects approved by Congress *but implemented only if* there is an unemployment or inflation problem and only in the amount needed to deal with the unemployment or inflation problem. And might be further constrained to increase AD primarily in the area where unemployment is located. Although this is similar to the much maligned pork that Congress is famous for, I think it might be preferable to have such projects suggested by elected politicians familiar with their States rather than bureaucrats, most of whom are limited in their knowledge of State needs. There will always be worthwhile spending opportunities that may not be funded in a balanced budget, but *which are preferable to letting resources remain idle as is currently done if there is unemployment*.

- **Optimum size of the government.** Unfortunately, there appears to be great resentment of government among a significant proportion of the population, who often insist that the size of government be reduced, sometimes to an arbitrary percentage of GDP. In fact, I do not know, nor does anyone else, what the optimum size of the government should be. In the

technological world in which we live, it is almost certain to be larger than in the past, and larger than many people want. Consider the imperatives for a trained and skilled population, an infrastructure to bind our economy together, the increasing reluctance of many people to accept high levels of poverty and unmet medical (and dental) needs, etc.

- ***Government Efficiency, Effectiveness:*** As part of my fantasy of improving government policy, I believe that there should be established a permanent independent commission composed of persons *outside* the government to focus on improving the effectiveness and efficiency of public programs. It would be modeled on the Federal Reserve Board of Governors and be composed of academic, business, and other nongovernmental professionals for nonrenewable terms of say, fourteen years,. This committee would be charged with investigating Federal programs on a rotating basis to determine where and how they could be made more efficient or effective and in some cases, whether they should even be continued. The committee could be staffed by a few ***low level government workers*** to carry out the day to day work of the committee. The committee itself would have a budget authority derived from a small percentage of the funds appropriated to the programs that are under investigation. These funds could be used to fund outside evaluations focusing on efficiency, hopefully by the same efficiency experts that are utilized in the private sector. The committee itself would be responsible for final reports issued to Congress. The investigated programs (and Congress) would then be tasked with either adopting the reforms or explaining why not. Members of the committee would be part-time and hopefully consist of hard nosed and successful entrepreneurs with no conflicts of interest with the programs that are being investigated.
- ***Focus on Employment, not just Support:*** Finally, we need to re-examine our income support and health care program and refocus them so that they emphasize employment. Among the programs that need to be refocused are workers' compensation, unemployment compensation, SSI (Welfare), Social Security (including both the disability insurance and retirement components), and others. At present, these programs are *not* designed to actively promote employment. In fact, they contain many disincentives to employment. Obviously, a detailed discussion of the problems inherent in these programs is too lengthy to present here, but a few broad examples of the types of reforms may be useful.

Unemployment compensation: the existing policy of providing benefits for 26 weeks combined with a weak federal requirement for seeking a job during this period might be modified. Twenty-six weeks without work activity is too long. A much shorter period, say eight weeks, might be more appropriate. Even during the eight week period, the requirement to actively seek work should be carefully monitored. Beyond this period, the recipient could be asked to undergo job counseling to see if a more effective job search program is needed. After another 4-6 weeks, the recipient could be given the option of undergoing vocational training or doing volunteer work that would at least be of equal value (and perhaps more) to the amount of unemployment compensation receives. The exact type of volunteer work depends upon a recipients's capabilities. One could imagine many possibilities, e.g., a teachers aid, volunteering in a hospice, etc. This may sound draconian, but I would also suggest that there is no reason why unemployment benefits could not be extended for as long as the person is not working for pay and is conducting an active and vigorous job search. I suspect much of the resentment against people on unemployment compensation would be dispelled by this procedure. Remember, the longer a person is out of work, the less likely is a return to work, undoubtedly partly because individuals lose normal work habits, e.g., rising in the morning at a time associated with going to work.

- ***Social Security Retirement:*** There is little reason to assume that a person's work activities

should end just because he or she reaches an arbitrary retirement age. In fact, many seniors prefer to keep working if possible. Many more, I suspect, would like to do so on a part-time basis (reflecting their growing limitations due to age and a desire to engage in leisure time activities on a greater scale than previously). In fact, it may not be necessary to lower social security costs by reducing their pension if they work. Consider, at a minimum, the equivalent of \$.15 out of every dollar they earn will be added to social security revenues. In addition, many will pay Federal, State, and local income taxes. For some, over half of what they earn will be paid out in taxes of one type or another. What is needed is a active public program to assist and encourage (perhaps require) persons receiving retirement benefits to remain productive. Consider: The economy clearly needs more output if all of the needs and desires of citizens are met. Many people, depending upon their physical health and skills, can work many years past the existing retirement age. For example, many college instructors can continue teaching, part time or full time, until quite aged. And we certainly need more resources to train our young people. Many such examples could be given. Continued participation in work activities, rather than total idleness, could be the expected norm among aged Americans. I suspect that many older Americans would value a small additional earned income to supplement the security provided by a stable retirement annuity and assured medical coverage much more than full-time leisure.

Pricing in the Bond Market (An Aside, in the unlikely event that we have time)

It might be simpler to grasp the effect of interest rates on the price on bonds and other securities by the following.

Clearly, earnings in the future have a lower value today than they will have in the nth year. One way to visualize this is to ask how much you would loan a person today for that person's promise to pay a fixed sum, say \$100, one year from now. Unless he or she was a very close friend, you would not loan that person the full \$100 if you could place a smaller sum, \$95.24, safely in a bank savings deposit paying 5 percent interest, and it would grow to \$100 in one year (assuming that you could find a bank that pays 5 percent interest). The most that a rational person would lend the person given these circumstance is \$95.24; in fact, the amount would be less if there was some concern that the person would not be able to repay the loan.¹ How was this amount calculated?

$$\text{Consider: } \$95.24 \times 1.05 = \$100, \text{ or, transposing, } \$95.24 = \frac{\$100}{1.05}$$

If the person would not repay the loan for two years, the amount would be:

$$\frac{\$100}{(1+.05)^2} = \$90.70$$

At this point, it should be obvious that the present value of a sum of money n years from now is equal to that future sum divided by $(1+r)^n$ where r equals the rate of interest plus an allowance for risk. If we have a string of benefits (b's), we see that the estimate of the present value of the future b's in the numerator is divided by the term, $(1+r)^n$:

¹ This is an adjustment for risk. Basically, r is the market rate of interest *plus* an adjustment for risk. The size of this adjustment will vary among people depending upon how averse they are to taking risks with their resources and their perception of the risk of a given investment. Our example assumes that bank loans are riskless. If investing in a profit making company, however, most individuals would demand more than a 5 percent return to compensate for the risk that the company will not be as profitable as they anticipate.

$$PV = \frac{b_1}{(1+r)} + \frac{b_2}{(1+r)^2} + \dots + \frac{b_n}{(1+r)^n}$$

The b's can be a fixed coupon rate, such as an agreement to pay \$100 a year for n years. Or the b's can be your estimate of what the b's are likely to be in the future, hopefully, in the case of stocks, dividends will rise, which is why growth stocks are worth more than stable income stocks.

Imagine that someday you buy a home. Let PV be the mortgage on the home, r the agreed upon interest rate, and then it is a simple matter to use a spreadsheet and calculate for b, your monthly mortgage payment. Some of you, studying accounting, may someday do just that.

Suppose you own a \$1 million U.S. bond paying a fixed annual interest payment of \$5,000, or 5% of the face value of the bond. The \$5,000 continues regardless of how the market rate changes. If the market rate of interest rises, so that people can receive more than 5% on their money, then the value of that security (PV) will decline, since it will pay only 5% on the face amount until maturity. Or, if you have a flexible interest rate on your home mortgage, (adjustable rate mortgage) and interest rates rise, and PV is fixed (which of course it is on a mortgage), then your mortgage payment (the b,s in the above equation) must also rise. You might wish that you had a fixed rate when you took out the mortgage.

EXTRA - Optional

Suppose the Fed wishes to sell more government securities in open market operations. The Fed would raise the PV (i.e., market price), which would, given fixed b's (existing fixed coupon rates), would necessarily cause the market rate of interest to fall, since that is the only variable in the equation that is flexible on existing securities. Of course, newer securities issued by the Treasury would carry a larger price and a lower coupon rate, r.

*To see this: Let r = market interest rate
C = coupon rate of bond
P = price of bond.*

Assume that the bond is a perpetuity so we can simplify our calculations.

*Clearly, $r = C/P$ Or $P = C/r$
E.g. If $r = .10$
And $C = \$10$
Then $P = \$100 (10/.1)$*

*Now, let r fall to .05
Then $C/.05 = \$200$ (i.e., $100/.05$) = PV of existing bonds.*

Gee, even the bond market is not without risk.

Further clarification of present value formulations

Basic formula is:

$$PV = \frac{b_1}{(1+r)} + \frac{b_2}{(1+r)^2} + \dots + \frac{b_n}{(1+r)^n}$$

A. Calculate the present value of a future stream of benefits. This assumes the b's are known as well as the rate of discount. So one only has to calculate PV, presumably using Excel or Quattro Pro.

If the b 's are fixed, this is likely to be a bond coupon payment which is fixed for the life of the bond. If the b 's are expected to grow over time, this is likely to be an asset, say a growth stock. If your forecast is correct, this will make you very happy (of course, the opposite may happen which is why some people believe buying stocks is similar to gambling). This is sometimes also used to calculate how much life insurance you need. Let the b 's be the annual (could be monthly) income that you will want your survivors to have, the r will represent the expected return on the money, and then calculate PV which any insurance salesman will tell you represents the minimum insurance that you should have.

B. Calculate the b 's when PV and r is known. *This is typically a mortgage payment. Say you buy a house with a \$500,000 Mortgage (PV) and an interest rate of 7%, then you can easily calculate (using a spread sheet program) your mortgage payment for a 30 or 40 year period. This is only for a fixed rate mortgage. If you have an adjustable rate mortgage (ARM), then this mortgage payment is recalculated at periodic intervals. If interest rates rise, then it should be obvious that the b 's (mortgage payments) must also rise in order to equal the existing present value.*

C. Calculate r when PV and the b 's are known. *This is commonly used when assessing employment programs (as well as many other applications). The PV represents how much employment services cost. The b 's represent estimated future benefits (typically estimates of increased earnings). One then solves for r , which is the estimated **annual rate of return** on the initial expenditure. This is also termed the **internal rate of return**. You can estimate the internal rate of return for any investment (PV) for which you can anticipate the future returns (b 's).*