After Dinner Speech 7th Annual BIS Conference on Monetary Policy Luzern, 26-27 June 2008

U.S. Monetary Policy and the Prospective Structural Slump

Edmund S. Phelps*

I am really delighted to have this opportunity to talk about monetary policy. The last time I discussed monetary policy at length was about four decades ago![†] My point then was that it was a huge mistake to see monetary policy as a static problem of engineering the desired balance between unemployment and inflation. *Optimum* policy solves a dynamic problem: it foregoes the temptation of short-term benefits in order to keep a lid on the expected inflation rate; it invests in a temporary cutback of jobs to lower the expected inflation rate if the rate is too high. Now everyone on Bloomberg and CNBC understands that monetary policy aims to manage inflation expectations. But how much more do they – or we – understand?

There are two questions on my mind. One is what the policy *is* these days or, at least, what the policy is *not*. Is policy still the Taylor rule? The second is what policy *ought to be* or, at least, what changes in policy would we agree to be better? I will focus on Federal Reserve monetary policy but I hope my commentary has some application to policy at the some other central banks as well. Inevitably another question arises: On what conditions will high employment mainly depend?

Director, Center on Capitalism and Society, Columbia University, and the winner of the 2006 Nobel Prize in Economic Science. This paper expands upon a dinner speech at the 7th Annual BIS Conference on Monetary Policy, Luzern, 26 June 2008, and a lecture at the Borsa Italiana, Milan, 11 June 2008.

[†] The main publications were my paper "Expectations of Inflation and Optimal Unemployment Over Time," *Economica*, 1967, and my book *Inflation Policy and Unemployment Theory*, Norton, 1972.

After setting the stage, I will argue in answer to the first question that the present policy discussion is confused in invoking the Taylor rule to explain the cut of interest rates to a low level – or it is confusing me in seeming to invoke the Taylor rule. As I see it, a faithful and circumspect application of the Taylor rule did not call for rate cuts last autumn. So, after the misguided cuts, it would appear to call for interest rate hikes.

I will then go on to argue, in answer to the second question, that the Taylor rule is unconvincing in calling for a cut in the current real expected interest rate in relation to the *natural* real rate with each increase of the unemployment rate in relation to the medium-term natural unemployment rate. The basic difficulty is that the Taylor rule is incomplete absent some model of the "natural" real interest rate – the moving anchor in relation to which the Taylor equation would have the central bank set the expected real interest rate. The "natural" real interest rate could go up or down following the shock that underlies an increase in the unemployment rate. Which way it jumps depends on what households plan to do with regard to the level and subsequent growth of their consumption. A policy of this kind harkens back to Friedrich Hayek and the notion of "neutral money," which was further developed by the Dutch banker B. O. Koopmans. (If there are bulls and bears they cannot both be right, so their differing expectations cannot be simultaneously met. A neutral policy would disappoint the two in counterbalancing ways.)

Finally I will note that the intense concern with whether interest rates are too low or about right, all things considered, is a bit like earnest discussion over the best position of the deck chairs on the sinking Titanic. The return of considerable unemployment means that the failure over large parts of the West to bring about complete or nearly complete economic inclusion will only get worse. Our countries will need somehow to find the structural reforms that can offer a return to

sustainable high employment and high productivity if they are ever to be able to offer full inclusion to the marginalized in society – an inclusion that has long been an official promise and never an achievement.

Structural Shifts in Housing, Banking and Business Investment

It is troublesome for policymaking – and a stain on the economics profession – that a large segment of the public has been taught to diagnose every downturn of employment from a long-sustained plateau as a decrease of "aggregate demand," or "effective demand," as Keynes called it – the volume of the circular flow of money racing around the economy. Such a Keynesian interpretation of an employment downturn puts popular pressure on a country's central bank to set interest rates accordingly. If employment is down because of reduced aggregate demand, the problem can be solved – at zero cost – through rate cuts and the ensuing rise in the money supply. The monetaristic way of thinking also makes it difficult or impossible for the central bank to communicate its thoughts, if any, on what underlying structural forces might lie beneath the downturn.

This time, though, there are forebodings of "stagflation" – lower employment without the solace of lower inflation. Economists with structuralist intuitions instinctively feel that the present downturn is the effect of structural shifts, not the undoubted shift in aggregate demand. They doubt that a central bank should drag out the effects, which it cannot forestall forever. If employment is down owing to shifting structures, gearing the money supply to prop up employment would generate inflation exceeding expectations. [‡] Inflation expectations would sooner or later break loose.[§]

[‡] Even if money went on being printed merely as fast as usual, the contraction of jobs and output supply would force a one-time lift in the price level, which might – or might not – raise inflation expectations. [§] The central bank's reservoir of credibility is not bottomless. Even if some force should pull the natural rate back down before the Fed backs down, the credibility expended would leave less available next time.

The mission would then have to be called off. Some of the central banks that have refrained from making rate cuts may be thinking this way.

We have a difference of opinion and of policy. Yet the structuralist view is rarely articulated and argued. What among the noticeable *non-monetary forces* are the main drivers in the present downturn? As important, what are the *non-monetary* channels through which these forces have *structural* impacts on the economy – and thus finally on the labor force and the natural rate of unemployment?

1. Two distinct forces have come out of the housing industry. First, there is the end of the *equilibrium part* of the housing boom. Something like 70 per cent of the rise in the inflation-adjusted price of houses in the US from 1997 to 2006 appears here to stay, justified by increased rentals on residential units in many big cities from New York to Los Angeles. A corresponding spate of house building would have developed had only the justifiable price rise occurred. Yet even such a "precision boom" comes to an end once the thirst to own more houses has been slaked. At that point, home building must subside to the level needed to replace old properties that have been shut and to house fresh increases in the population. Construction workers in the housing industry and loan officers in the banking industry then suffer job losses – even as prices and rentals on houses remain high.^{**}

^{**} Suppose that at time t_0 a step increase in rentals was suddenly and correctly foreseen to occur at future tome t'. The price of houses would immediately jump in anticipation of the higher prices prevailing when the rental increased. The ratio of rental to price (the "rental rate") would be reduced but offset by the anticipated capital gains needed to generate a total yield competitive with the world real interest rate, taken to be an exogenous constant. In the phase until t'. the rental rate is declining and the capital gain rate rising in compensation. In the phase after t' the price must be rising at a vanishing rate as the rest point is approached. Assume the contrary: that the price is sliding back to its ultimate rest-point level, having overshot. Then the rental rate would be rising on top of a vanishing capital loss rate as the rest point was approached. But that is impossible if, as supposed, the world economy dictates a real yield that is constant over time. QED. The equilibrium trajectory ABB'A' in Figure 1 depicts this story. It is a paradox that through this trajectory the rising housing *stock* drives a rising housing *price*.

Second, there is the decline in real house prices as the market gives back the excessive part of the rise in real house prices – the part not justified by realized rentals.^{††} The decline leads to an additional structural contraction in the demand for labor in the housing and banking industries. Obviously this force too has a contractionary impact on employment in construction and banking.

Does this industry-specific job loss entail a loss for *total* employment in the economy? The loss of jobs in the construction industry, which is quite laborintensive, fails to induce an offsetting rise. Total employment does not bounce back, since a full re-employment of the jobless workers elsewhere in the economy would require real wage cuts that would exceed what some workers would be willing to accept. (In my models, it is only if all workers in the economy found their wealth fell in the same proportion as the market-clearing economy-wide that the wage would fall enough to re-employ everyone. But there is no reason for the fall of housing wealth to have such an impact on workers' total wealth.)

2. Another set of structural forces operating to contract employment flow from the overextension of credit by the financial sector, primarily in the form of subprime mortgages, as engendering another set of structural forces. These are forces that, though non-monetary and related to the end of the housing boom, cannot be subsumed under the housing forces just analyzed.^{‡‡} For one thing, the bursting of the bubble in house prices caught many investment banks with holdings of collateralized debt obligations – mostly mortgages that had not yet been

^{††} In Figure 1 the *disequilibrium* trajectory is depicted by the ABCD. The bubble burst at point B.

^{‡‡} How can these *banking* forces be treated as fundamentally non-monetary? And why should they be? I feel that we gain clarity – at little cost – by supposing, contrary to factual details, that the financial sector lends and invests out of savings from households in the form of common stock, commercial paper, etc., the market for which is broad and liquid. These instruments are the medium of exchange. Housing output expands or contracts in response to *relative* price and the *real* or *product* wage. It may be of little consequence that in fact what we call money is used as the medium of exchange.

"securitized" and sold off to the rest of the financial sector. The prospect that a massive amount of these CDOs might become non-performing made banks reluctant to try to sell them and caused worries that the banks would not be able to find buyers for them in a timely way. With the safety of banks lending to other banks put in question, the big banks have found it hard to borrow from one another. This "illiquidity" and resulting "seizing up" in the "plumbing" of the credit markets is one force causing a cut back in the supply of loans to the business sector and to the housing industry.

Another structural force is the enormous increase in bank assets, net of liabilities, in relation to bank capital – the phenomenon of excessive leverage. Consequently, some of the big banks may be operating in a condition of insolvency and their share prices are vulnerable to rumors of unacknowledged or unrecognized insolvency. In this situation, a decision by management to make loans to the business sector as usual would raise added hazards of bankruptcy, takeover or closing. So the big banks' supply of finance for business investment is curtailed. (The banks' managers might see it as in their interests to increase their capital through the issue of more equity as a way to de-leverage until the bank is out of harm's way. But the owners of ordinary shares may see it in their interest instead to decrease lending until the stock of loans has shrunk.) In theoretical terms, we may say that the *uncertainty premium* has been pushed up and that force impacts on the generality of investment projects, most of which pose some Knightian uncertainty owing to strategic issues and shifting structures. In fact, we observe over the past year that credit spreads have all widened; further, bank lending to business has shrunk in that time and mortgage lending has all but stopped.

It is straightforward to argue that an increase of the uncertainty premium drives down employment (driving up the natural unemployment rate correspondingly). In the models I use, uncertainty about new loans or investments forces the value put on an added unit of a business asset to cover not only the cost of acquiring the added unit but also the uncertainty premium. In the terminology of taxation theory, the premium drives a *wedge* between the value of an added unit of the asset and the cost of acquiring it. An increase in the premium widens the wedge. As a result, the rest point to which the economy tends in the medium-term future – the new and lower plateau that it will tend to fluctuate around pending any new major forces – will exhibit a lower level of asset prices, thus a lower level of investing of all kinds in the business sector and housing industry, and in the medium-term rest point lower levels of the stocks of the business assets, including the stock of employees in business. A diagram depicts this in Figure 2.

3. Another category of structural forces consists of wealth per worker (hereafter "wealth") and productivity. In my framework, roughly speaking, wealth is negative for employment, productivity positive. These forces are slow-moving but can wield mounting influence. One pattern is an increase in the trend growth rate of productivity without an immediate and offsetting increase in the growth of wealth supply. As productivity gets ahead of wealth, the wage-to-wealth ratio is also increased and thus the labor supplied; but as wealth catches up, the wage ratio and employment fall back. A case in point is the relatively fast productivity growth from 1990 to 2005: the wealth ratio was falling till about 1995 and employment was rising from 1992 to 2000. (Actually, the wealth ratio overshot the mark, as we all know, falling to earth from 2000 to 2002. And productivity took off again in 2002, but this time wealth did not fall behind, owing to the housing boom.)

The slowdown of productivity growth in the U.S. economy over the past three years, taken as a whole, is of concern in this respect as well as others. When households revert to their habits of saving, the ensuing growth of wealth will be a *drag* on the wage-to-wealth ratio and thus the labor supplied – *if* productivity does not grow at a matching rate.

Furthermore, the slower pace of productivity is likely to damp business *expectations* for productivity growth over the medium-term future. This spells a reduction in the trend growth in the profits that business firms would expect from any new investments they undertook. The effect of that, in turn, would be a drop in the shadow prices that firms place on the business assets in which they invest, including the customer and the trained employee. An end-result is a decrease in investment demand, thus cutbacks in jobs in commercial construction and other capital goods industries. Again, such localized job cuts do not induce an equal and opposite increase in jobs elsewhere in the economy.^{§§}

It is important to add that in *open* economies (which have by no means been excluded here) the same structural forces exert structural effects through an *additional channel*. When structural forces, by reducing the value, or shadow price, placed on unit-additions to the business assets, causes investment demand (and consumption demand as well) to drop, the *real exchange rate* is weakened as well: either the nominal exchange rate falls or the price and wage levels fall. (A basket of domestic output is worth less in foreign goods.) This is necessary for exports revenues to increase by enough to pay for the (ultimate) increase in the import bill or, at any rate, to increase in anticipation of paying later for the increase in the import bill. The real exchange rate depreciation "stimulates" a diversion of some domestic output to export, although finding buyers in many cases will take some time, but not an increase of total output and employment. Yet domestic firms, now better shielded from overseas rivals, will act more like monopolists – raising their markups, which is equivalent to cutting their supplies. Through this channel, then, employment is unambiguously decreased.

^{§§} There is potentially another category of structural force raising unemployment in the U.S. and the west generally: a slowdown of output or a speed up of consumption in China and the Middle East. Either development, in raising world interest rates, would impact negatively on the shadow values/prices that American businesses place on added employees, customers, and office space.

It will be no surprise that the analysis here rests on a body of pre-existing 'structuralist' models.^{***} These models differ from the Mundell-Fleming model of a small open economy. The latter is thoroughly Keynesian: There is no *structure* in production: the entirety of investment activity revolves around a single capital good, which is produced the same way as the consumer good. In that model, a fall of the dollar has only an expenditure-switching effect, which *stimulates* exports and consumption demand at domestic producers – thus *boosting* employment until money wages adjust to nullify the effect. In contrast, the structuralist models recognize the *variousness* of investing – constructing office space that is more labor-intensive than is production in the consumption sector, training new recruits for work as employees, and price cutting (or other methods) aimed at acquiring new customers. Several statistical tests performed from around 1990 to 2003 consistently show that real exchange rate weakness augurs a decrease of employment.

4. Finally, there are the steeper prices of imported oil and a range of imported primary products, from metals to soya. Beneath that structural force are underlying forces: There is the rapid growth in Asia. Some countries have driven up oil prices by allowing their capacity to dwindle in the expectation of better prices later or by subsidizing oil. The prices of some foodstuffs increased when subsidies to energy products raised the opportunity costs of growing many primary products, such as soya, and some of those subsidies did little to reduce the price of energy.

Obviously, the higher prices on these intermediate imports cost a country some of its national income. But what is the effect, if any, on total employment? It is commonly supposed that economics gives compelling reasons to believe that an increased oil price pulls down employment. True, the usual textbook analysis points to a decline in the marginal productivity of labor once employers, in an economy move, give employees less oil to work with, and the resulting fall in the

^{***} The basic models are collected in my *Structural Slumps: The Modern Equilibrium Theory of Employment, Interest and Assets*, Harvard, 1994. See also the paper by Hoon, Phelps and Zoega in Willi Semmler (ed), *Monetary Policy*, 2003.

real wage is supposed to reduce the amount of labor supplied, thus contracting the labor force. But it cannot be assumed that the incentive wage offered by firms will not decrease in the same proportion, thus averting a rise in unemployment. It may be that the percentage fall in the marginal productivity of labor is roughly matched by the percentage fall in the marginal productivities of capital and land. In that case, the income from wealth falls as much as the real wage. Once suppliers of labor recognize that proportionality, they may (depending on their preferences) be willing – theoretically, at any rate – to go on supplying the same labor as before, thus swallowing the drop of their real wage. That would suggest that the economy should in that case be able to continue with unchanged employment and perhaps even an unchanged sense of prosperity. This "neutrality" of oil is the dream of central bankers!

Another channel would appear to lead to employment contraction. Since consumer goods normally require these intermediate products for their production, the increased cost of the intermediates will normally bite into the profits earned by producing consumer goods; this in turn will decrease the value, or *shadow price*, of the capital goods used in the production of the consumer goods. The difficulty, however, is that the *opportunity cost* (in units of the consumer good) may *also* be decreased as a result of the drop in the real wage caused by the price increases on the intermediate products. So the net effect on business activity producing capital goods (from office space to trained employees) is still ambiguous!

Empirically, though, it does appear that oil prices are a negative for jobs. How, then, to obtain an unambiguous implication of employment contraction?

•It could be supposed that it is the *value* of household wealth (hereafter "wealth") – not the *income* from that wealth, as above – that matters for the reservation wage, thus the size of the labor force, and for the incentive wage

employers need to pay, thus the medium-term natural unemployment rate. Then, after the oil shock, there might be expectations of some recovery of the rentals earned on capital in the home country, which would cushion wealth from falling by as much proportionately as the income from wealth - e.g., energy savings.

•It could be supposed that oil is sufficiently important for the production of the capital goods that the opportunity cost of producing capital goods falls by less than the real wage falls. The employment in the production of capital goods would tend to fall, which would pull down total employment.

•The employment effect coming through the real exchange rate channel is negative, as argued under sub-section 3 above. (I am referring to the real depreciation prompted by the need to pay sooner or later for the higher import bill, not the real depreciation occurring by sheer accounting when some of the foreign prices increased exogenously.)

Actually, the idea that a high oil price is devastating for prosperity is much exaggerated. The impression that employment is apt to collapse under the weight of a high oil price arose in the mid-1970s recession, which followed the 1973 oil shock. Some economists, including me, showed that the higher oil price could so increase costs of production as to make the increase in the unit cost of producing national output, given the money wage, exceed the increase in the *price* that buyers of national output would be willing to pay, given the money supply. Then a secondary contraction of output would occur, leading to a lower employment. But today the central banks do not keep their hand on the money supply – they set interest rates and let the money supply increase freely with any increase in the demand for it. Whatever the money price we have to pay for our bread, our central banks will be there for us! Furthermore, oil today receives a much smaller share of the GDP than it did three decades ago. In the 1970s we economists were unaware that the increased unemployment of that decade was caused mainly by the end of the extraordinary productivity growth that prevailed from 1955 to 1975, not energy prices.

There are structural forces working the other way, of course. Export demand is still increasing fast. The information and communications boom is not dead yet, judging by the considerable venture capital activity in Silicon Valley, but I do not see it poised for growth at a rate faster than that in recent years.^{†††} My sense is that the four categories of contractionary forces outweigh the expansionary force of exports. The decline of total investment, business plus residential, in the U.S. has been about as large over the past 12 months or so as the rise of U.S. exports; but the former reflect a decline of wealth that has reduced consumer demand and thus has weakened the dollar and further reduced output and employment. That is reinforced by the observation that the dollar has *weakened* in the past year (as well as the year before), not strengthened, from an already weak level.

There would not seem to be any other way to explain the recent contraction of employment and rise of unemployment. The recent disruptions do not appear to be mainly the result of monetary forces. The 2002-2005 dip of interest rates and investment boom in the U.S. was not associated with any acceleration of the money supply, either M1 or M2 – certainly not if we normalize the money stocks by productivity multiplied by active-age population, which serves to remove the trend and allow for surges in productivity and population. Likewise, the 2006-2008 deceleration of output and more recent employment downturn in the U.S. are not associated with a deceleration of the money supply, either M1 or M2.

How far has 'natural' unemployment risen? More than actual unemployment?

This analysis, as just noted, points to a future with a relatively *high* natural unemployment rate – certainly high relative to the remarkably low natural levels to which we became accustomed in the second half of the 1990s and the first half of the 2000s. How high?

^{†††} The possibility of productivity growth about as fast as in 1995-2005 cannot be ruled out, however. Recall that productivity in the U.S. economy has suffered a *fall* as a result of the malallocation of labor and the malinvestment of capital up to 2007, owing to the establishment of the "wrong prices" on assets, companies and industries. The *re*-allocation of much labor and much capital will surely deliver a bonanza for national income and GDP calculated at the constant prices after the fall.

It might be thought that the natural rate is now back to the unemployment level of the mid-1990s, particularly 1995 and 1996 – a tranquil period in which both the actual unemployment rate and the inflation rate were neither rising nor falling. This also happens to be the range in which the actual unemployment rate has been over the past couple of months (as of this revision at the end of July 2008). Is that a plausible estimate of the medium-term natural unemployment rate – the level to which the equilibrium pathway takes the unemployment rate?

There is evidence to suggest that the natural unemployment rate is higher than that benchmark level. The level of real stock market capitalization in the U.S. expressed as a ratio to business product is lower now than it was in 1995. The real exchange rate is much lower. There is also the evidence that the Fed, in driving short-term real interest rates into negative territory, has been digging in its heels to try to brake the descent of employment. This suggests that when the Fed takes its foot off the brake, the economy will lurch downhill for some further distance. Finally, if the actual unemployment rate is below its new medium-term natural level, our models prepare us to see signs of a *general* rise of prices – the "core" included. We do see that – the sharply higher prices in auction-type markets being the most conspicuous, of course. The core part of the CPI has risen in the past two years by about one percentage point above what would have resulted had the Fed been hitting its target on average. Judging by this evidence, the natural rate today significantly *exceeds* the 1995-96 benchmark.

If so, I would remark *en passant* that the US economy and some economies in western Europe too were saved from a dreary decade by their housing booms – aided by optimism about productivity and by cheap oil. One might imagine that the housing boom came at the expense of the information and communications boom. But, throwing my previous analysis into reverse, it is easy to see that the expansion

in the housing industry, which is highly labor-intensive, raised real wages (above where they would otherwise have been) and total employment: it did not simply move labor and capital in equal proportion from the business sector to the residential construction with no effect on employment and real wages at all. Furthermore, in this age of the Global Economy, a housing boom does not have to suck blood from some other investment activity in order to live. The US economy could have both booms – and it did. Now the US faces a future without benefit of a boom for the foreseeable future. And the beneficial effect on the natural unemployment rate of the housing boom, an expansive banking sector, rapid productivity growth and cheap oil were far greater than imagined.

The bottom line: Recent developments have driven the *natural* medium term unemployment rate *above* or, in the best case, *at* the level it tended to be in the mid-1990s, before the internet boom in the second half of the 1990s and the housing boom of the first half of the 2000s – a level in the neighborhood of 5.5%. (If the GDP and share prices level off, the unemployment will go on rising owing to productivity growth.) The fact that neither inflation expectations nor the core inflation rate have broken loose from their moorings does not refute the existence of the natural rate; it simply suggests that the Fed enjoys a reservoir of credibility.

Suspected Mistakes in Current Policy Thinking

For a couple of decades we have been accustomed to interpreting monetary policy in terms of the Taylor rule. But this rule has no operational significance without specification of how two of its crucial elements are to be estimated: the mediumterm natural unemployment rate, to which the actual unemployment is supposed to be tending, and the current (or maybe the medium-term) natural real rate of interest, which would be the observed interest rate if the economy were at its medium-term

natural level and the (expected) inflation rate were at its target level. As a consequence, it may be impossible to be sure that a central bank is or is not following the Taylor rule.

As I see it, the Federal Reserve is *not thinking right about the natural rate of unemployment*. The Fed appears to believe that the medium-term unemployment rate is well *below* the present level of 5.5%. The Taylor rule would have a central bank respond to such a rise of the unemployment rate above its medium-term natural level with a *cut* of the policy rate (the Federal funds rate in the U.S.) on the grounds that the unemployment rate, when so elevated, will cycle back to its unchanged medium-term natural level; so in cutting the policy rate the central bank would be shaving something off the trough of the cycle. Of course, the Fed's early rate cuts may have been driven by a gut feeling that banks might collapse if rates were not cut. But now the rationale for keeping rates low appears to be the feeling that the low rates serve to "cushion" the economy against what would otherwise be a worse trough and to reduce the "tail risk" that the unemployment rate will go very much higher before turning around.

But if one believes that the forces driving up the unemployment rate are structural forces and that most or all these forces will not turn around, then it is not clear (to me at any rate) what the rationale is for setting rates at unusually low levels. Some say it is to "forestall" foreclosures and bank closings. But if unemployment and the short real interest rate are bound to meet their medium-term natural destiny, the foreclosures and closings will happen anyway. Others say low rates are really a response to the present (and temporary) illiquidity at banks. But the Fed could lend to banks without upping the money supply. Perhaps it is believed at the Fed that the medium-term natural unemployment rate will be low again – will no longer exceed the present unemployment rate – once the illiquidity is resolved. But there is no lack of other structural forces driving the natural rate above recent levels of the actual rate.

I am not saying that the Taylor Rule is wrong to suspend concern about inflation expectations when the unemployment rate has drifted well above the natural unemployment rate; I am saying that the Taylorian analysis justifying low rates is inapplicable, since unemployment is *below* the medium-term natural rate, not above it.

I agree with Taylor that it can make sense to tolerate a worsening of expectations over some medium term in order to avert an avoidable rise of unemployment or speed its decrease. This property is one of the virtues of the Taylor rule. But it is one thing to *cause* or *aggravate* a worsening of inflation expectations for some time in order to *damp* a transient rise of unemployment and quite another thing to *slow* a rise of unemployment the full extent of which will occur anyway. The former serves to shave off the troughs – the worst extremes of unemployment – while the latter prolong below-natural unemployment a while before the inevitable trough materializes. It would seem to me groundless of the Fed to believe that the economy will soon gain back some of its lost strength and dangerous to decide on that belief to hold down short-term interest rates as long as unemployment is high or appears to be heading high. (Likewise it would be risky for the European Central Bank to meet calls to freeze the short-term nominal interest rate in the face of increased expectations of inflation: that would be tantamount to *reducing* the *expected real* interest rate when inflation expectations are already too high and maybe rising merely to postpone for a time whatever rise in unemployment structural forces are going to impose. *Sooner or later* expectations of inflation (or of deflation) become so far from the target as to *force* a central bank to set the expected real interest rate at the level consistent with the emergence of the natural unemployment rate in order to prevent any further deterioration of inflation/deflation performance. (Absent such action, the inflation (or deflation) rate would explode until it hits a natural ceiling or floor.)

The reply, it has occurred to me, is that when those forces reduce employment they also reduce the rate of return to investing and thus the "natural rate of interest." But here, as I see it, the Fed is not thinking right about the natural rate of (real) interest either! First, the present rate of return on equities is about 5.5% per cent, according to Barton Biggs, which is far higher than the policy rates set by the Fed (after adjusting for inflation); and that rate of return could go higher if share prices give up optimistic hopes of prosperity just around the corner. Second, what will be driving real rates of interest once the economy settles into its new growth path is the rate that households require on loans. Since their new wealth levels will be sharply reduced relative to the future wealth levels to which they can look forward as they recoup - leaving their present consumption sharply pinched relative to their future consumption – the expected real rate of interest they require is going to be a lot higher than it has been in recent years. So, it appears that the present near-zero real rates are not sustainable. Inflation would become appreciable, causing expectations of inflation to get out of hand. Moreover, it is hard to see how the Fed could lend for long at rates that undercut the private sector: it would run out of ammunition.

In the present circumstances it would make sense for monetary policy to start raising the expected real rate of interest at the short end until it matched and finally exceeded the expected inflation rate.

Possible Lines of Fresh Thinking

The most plausible prospect for the U.S. economy over the medium-term future – until the next boom – is a dull labor market: the unemployment rate fluctuating between 5 and 6 per cent (or a little more) with high unemployment rates for black

males and Latino males hard hit by the end of the housing boom. Prospects will be much worse if confidence in the value of business and financial assets collapses.

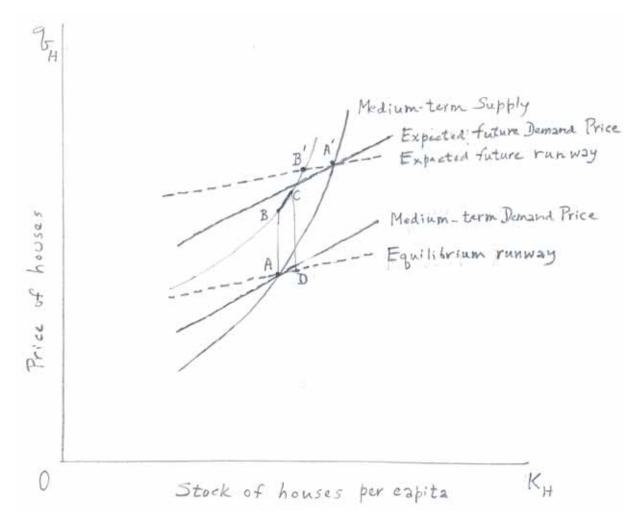
Whatever the best monetary policy and the best fiscal policy are in the present situation, the fixation on monetary and fiscal policy has diminished the incentives anyone might have had to think "outside the box." Who would listen? Yet ideas for new initiatives are apt to be our best bet. They may be indispensable.

For a decade I have been making a case for low-wage employment subsidies – paid to employers at firms over a certain size and graduated according to the pay rate. Such a program would serve to pull up wages and employment among workers from disadvantaged groups. That would contribute to economic inclusion and social integration. My sense is that this is the right time for this initiative.

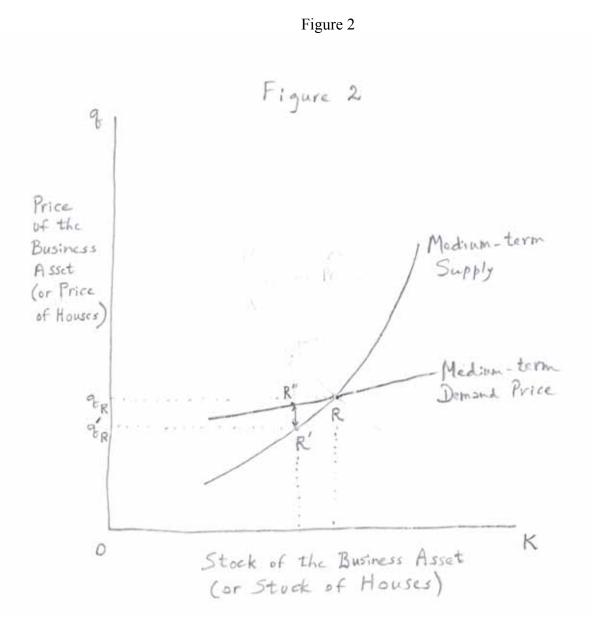
Yet such subsidies will not suffice for high prosperity. It is necessary also – in the US economy and the European economies even more – to increase economic dynamism: the financial sectors seem not to be very oriented toward innovation; corporate governance and management practice seem to have failed (with exceptions) to encourage strategic vision; in Europe the labor markets are another hindrance to innovation. More dynamism would lead to more novelty and change, thus more mental stimulation, and problem-solving, thus to the development of talents (in Rawls's words) and the expansion of capabilities (in Sen's words). It would also encourage originality, exploration and innovation in the business sphere. In these ways, more dynamism can serve to reduce unemployment and expand participation, which alone would be of great benefit and would widen opportunities for lives of adventure and self-discovery – thus to lift the human spirit.







The sudden expectation in the initial state A of a future step up in rentals, thus demand, causes the house prices to jump to point B. The economy is then expected to transit to B', thence to A'. But a collapse occurs at a point like C if these expectations are seen to be groundless. In that case, the price drops to point D, resulting in a housing depression and gradual return to A.



There is in general an uncertainty premium, represented by the wedge R'R'' between the Demand Price, which must be high enough to cover the premium, and the Supply Price, which reflects the net price – the observable price of which supply is a function. The rest point moves from R to R', where the price is lower and the stock smaller.