

## Correspondence

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### **Comment on “Symposium on Real Business Cycles,” Summer 1989, pp. 51–89.**

Professors Plosser and Mankiw provided clear and interesting insights into the profession's progress in understanding business cycles. Obviously, much remains in dispute. The observations that follow are an attempt to clarify, and more sharply focus, several of the unresolved issues.

*Technological Change.* Real business cycle theorists and their Keynesian critics have used “technological change/disturbance,” “productivity differences” (and similar terms) to denote an amalgam of different economic forces. Following Solow (1957), this broad, “residual” concept of technological change entails (essentially) changes in aggregate output not directly attributable to changes in capital or labor. Thus it includes, for example, politically induced changes (or expected changes) in domestic institutional and legal arrangements, changes in the world's prospects for war and peace, changes in weather conditions, and changes in tastes. Naturally, it also includes the narrower notion of changes in technical knowledge regarding how to transform resources.

In the narrower sense of knowledge acquisition, technological change is cumulative. Thus, unless something unusual is assumed about the decay rate of extant knowledge, technological change in the narrow sense cannot be the source of declines in real economic output. Furthermore, as argued by Rosenberg and Birdzell (1986), technological change in the narrow sense has been, and no doubt will continue to be, responsible for gradual increases in real output over time. Consequently, short-term, relatively rapid changes in measured real output would appear to rest on components

of the Solow “technological residual” other than the narrower, more common interpretation, of technological change.

*Real Output.* Though perhaps obvious, there is a difference between measured real output and real output in the economically relevant sense. In particular, individuals engage in a variety of utility increasing information-gathering activities which are not included in measured real output. This is especially so when shocks induce a reallocation of resources.

Information regarding the utility maximizing configuration of resource use is embedded in relative prices. If a shock is “negative” (not accompanied by any offsetting resource enhancement, like increased political uncertainty), part of this information is destroyed. Real wealth in the broad economic sense declines. However, this decline is trapped imperfectly by the associated decline in measured real output.

In the face of increased potential price variability, the relative return to information-gathering activity increases. Rational individuals will reallocate time away from specialized work effort (for recompense) and leisure. Since measured real output, however, does not include this post-shock search productivity, its decline will overstate the fall in real output.

On the other hand, measured real output can rise, and real wealth fall, as a consequence of discoordinating, surprise increases in monetary growth (Brown and Santoni, 1986). Unfortunately, the extent to which measured real output generates these kinds of “errors” is not well understood. What this means is that business cycle theories based on rational, economic adjustments on the part of individuals will necessarily be difficult to test using unqualified fluctuations in measured real output.

*Many Markets.* Unpredictable changes in demand and supply conditions in individual markets (meaning ones for which we have no theory) occur continuously. These result in irreducible variation in economic activity. However, the laws of probability insure that these kind of shocks tend to average out. They are not likely to cause significant reductions in aggregate economic activity that completely swamp long run growth trends.

Significant and reasonably rapid changes in real output (over and above those associated with an economy’s normal functioning) must result from forces that effect markets *pervasively*. The weather (sun spots?) and wars, though not without pervasive affects, can be ruled out as perhaps too episodic. Economy-wide “bubble forces” and lemming-like, destructive, reverse bubble behavior are perhaps too pat, being only reconcilable with the timing of events *ex post*.

Other than government actions (like changes in the legal environment, foreign policy, monetary policy), little is left as reasonable candidates for having potentially pervasive, unidirectional effects across markets. Unfortunately, with the possible exception of the Fed’s deleterious monetary policy during the 1930s, persuasive evidence and analyses relating changes in government policies to business cycles are not common. Therein lies a challenge for the study of economic fluctuations.

No doubt, this is a daunting task; the relationship between business cycles and governmental actions is surely complex. However, as real business cycle theorists suggest, analyses of government as a source of real economic fluctuations will be

convincing only to the extent they are grounded on the economic principles that stem from rational optimizing. Over time these principles have served us well in understanding a wide spectrum of human economic behavior. In contrast, reliance on *ad hoc* nominal rigidities to explain the propagation of business cycles is ultimately less persuasive. Nominal rigidities, if and when they exist, are the result of people rationally adjusting to constraints, though these constraints may be imperfectly understood by economic theorists. Consequently, explanations for business cycles resting on such rigidities will typically camouflage a failure to account for deeper underlying economic processes at work.

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## References

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**Comment on Michelle J. White, "The Corporate Bankruptcy Decision," Spring 1989, pp. 129–51.**

Michelle White's excellent summary of this literature contained much that one can agree with in surveying an area which is beginning to assume increasing importance within economics, in the development of which she herself has played a major part. A central part of the paper looked at the impact of the new U.S. Bankruptcy Code introduced towards the end of 1979, particularly the controversial Chapter 11 which deals with firms going into reorganization. White argued that this part of the code was inefficient, causing too many firms to go into reorganization and possibly allowing inefficient firms to remain in operation slowing down the contraction of declining industries. It was also argued that under the present system managers, representing equity, always prefer reorganization over liquidation because by reorganizing they can transfer income from creditors to equity. In addition, managers also have a personal interest in seeking reorganization because existing management is usually retained in reorganization, whilst in liquidation managers' jobs are eliminated.

To a large extent White is probably correct in this analysis. But I feel she has given insufficient credit to the positive role of the new Code in general and Chapter 11 in particular in preserving jobs and in helping the U.S. avoid the sort of recession which has gripped western Europe in the past decade. In part this is because White seems to be working with a perfectly competitive model in which the market will save any profitable firm. In reality there are likely to be significant externalities which might make it optimal from society's viewpoint to save a firm which the market place would let die. From the government's perspective, examples of these are the lost tax revenue from and benefits payable to workers made unemployed by the bankruptcy. The importance of these depends upon how soon these workers can be redeployed to alternative uses.

In addition, White also seems to be working within a partial equilibrium framework. This is illustrated when she calculates the costs of bankruptcies. Within a Keynesian framework, these losses will not be limited to workers made unemployed directly by the bankruptcy, but those affected by the multiplier effects of the bankruptcy. Moreover there is also likely to be a supply side multiplier in operation by which the failure of one firm can cause other firms to fail (Hudson, 1988). Thus if we are looking at the total costs of bankruptcies we should include the direct costs White considered and the wider costs to the economy which she failed to consider. Moreover if we are considering the appropriate institutional framework to govern bankruptcies, then this should be one which minimizes total costs rather than just the direct ones White considered.

Such an approach would place much more emphasis on the saving of jobs than White seems to do. The potential importance of this can be seen clearer if we compare the U.S. with the British system. The emphasis of the latter is on retrieving as much money as possible for the creditors, with the greatest weight being placed on the interests of secured creditors. There is no emphasis on saving the firm as a going concern, or saving the jobs of the workers. Thus in the deep recession which followed the second OPEC price increase in 1979, large numbers of firms closed down altogether. Workers were laid off, structures demolished, and machines sent to the scrap heap. This, together with the closure of plants by firms who did not go bankrupt, meant that the productive capacity of British industry was severely reduced. When demand revived following an expansionary fiscal policy, the economy could not meet it, with the result that 1988 saw a record deficit on the balance of payments with unemployment remaining at very high levels and accelerating inflation. The U.S. saw a similar recession following the second OPEC price increase with unemployment reaching record levels in the early 1980s. But supply side capacity was not so affected as in the UK because large troubled firms had the opportunity of going into reorganization. Therefore, when the Reagan boom came the economy was in a much better position to meet it. Doubtless, this has been at the expense of some restructuring and doubtless more dead wood remains in the U.S. economy than in the UK economy. But few who objectively compare the two economies today can deny that the U.S. economy is in a much better position.

Moreover, the difference is not just measured in terms of the fate of companies who fail. As White noted, managers in the U.S. have an incentive to seek reorganization rather than liquidation. In the UK, the only alternatives to liquidation are either large scale plant closures or merger with some other firm. It is just this fate which has met the various firms which used to comprise the British car industry, taken over and subsequently run down by foreign firms or simply run down by firms with extreme financial problems. This decline is illustrated if we compare output in the peak year before the first oil shock with output in 1988. In 1972 1.6 million cars were produced in the UK. By 1984 this had fallen to 0.76 million. Since then output has recovered slightly to 1.02 million in 1988, mainly though the investment of foreign companies in the UK. Even this figure is artificially high as a much higher proportion of each car is now made outside the UK. Today the UK, almost alone amongst the major industrial nations, has no major indigenous car manufacturer. This is symptomatic of much of the rest of British industry, not just in mature and declining sectors of the economy. A similar story of closure and merger with foreign based companies has occurred in the micro computer industry.

If Britain had had a similar emphasis on the saving of jobs written into its insolvency laws then it is arguably the case that the UK economy would now be much stronger on the supply side. Similarly, without this emphasis it is arguable that the U.S. economy would not have been in the position to meet demand as effectively as it did in the Reagan expansion. Unemployment might then have remained high in common with Western Europe.

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