Comments

Unemployment, consumption and growth
by Charles Bean and Chris Pissarides

Ricardo J. Caballero

MIT, Cambridge MA, USA

Traditional macroeconomic analysis as well as recent search models of unemployment emphasize the role of growth on unemployment. This paper begins with the simple observation that both unemployment and growth are endogenous variables; thus rather than looking at the impact of one on the other, their comovement is viewed as the result of some 'deeper' change in the economy.

Bean and Pissarides' basic framework consists of a simple overlapping-generations model with two additional features: First, firms' technology exhibits decreasing returns with respect to their own capital but the aggregate technology is linear in aggregate capital. And second, matching a worker and a job is costly. The first feature yields endogenous steady-state growth while the second yields a positive natural rate of unemployment. Although the mechanisms to obtain these results are well known, the merit of the model is that it provides a very simple apparatus for analyzing a wide variety of questions about long-run unemployment and growth determination. In the second part of the paper, they enrich the model by adding imperfect competition in the goods market. This nice expanded model allows them to study the role of market structure on the response of long-run growth and unemployment to several experiments.

They use their framework to trace the impact of several policy and parameter changes. In this discussion I highlight the implications of three of the main experiments they perform, and discuss their conformity with preliminary evidence presented below.

The first experiment consists of a reduction in hiring costs. The immediate consequence of this is an increase in vacancy posting, which lowers unemployment and through the impact of this on workers' savings, fosters growth. I have not isolated this experiment for its particular mechanism but because it provides one example of negative correlation between growth and unemployment, and it gives me an excuse to present evidence on this correlation below.

The second experiment is more intricate. They show that an increase in workers' bargaining power raises unemployment but it has an ambiguous effect on growth. On one hand, the increase in workers' share leads to more savings – only workers save in this model – and therefore higher growth. On the other, the reduction in employment lowers savings and growth.

The third experiment is, in my view, the most interesting. Using the expanded version of their model, they study the effect on growth of an increase in the marginal propensity to consume. The most striking result is that, contrary to the unambiguous fall in savings and therefore in growth obtained under Classical assumptions, savings and growth may actually rise if the markup prevailing in the consumption goods market before the change was large. I find this result fascinating, although at this stage it is mostly driven by the assumption that setup costs are denominated in terms of consumption goods, so a fall in the markup due to increased competition also lowers setup costs, which is less enchanting but not entirely unfeasible.

Having described these basic experiments, I now use them to organize a few very preliminary empirical results. Since the main concern of the paper is with medium/long-run issues, I filter out the high-frequency components of the data using an HP filter. I present two sets of results: the first one leaves only the very low frequency component of the data (HP: $\lambda = 1{,}600$), while the second one only removes the very high frequency component of it (HP: $\lambda = 60$). The data are quarterly from 1966:1 to 1989:4, for the U.S. and the U.K.

As said before, the first experiment gives me the excuse to present evidence on the observed medium/low frequency comovement of unemployment and per capita growth.[1] Figs. 1 and 2 depict the paths of (standardized) growth by solid lines and those of (standardized) unemployment by dashed lines. Fig. 1 corresponds to the U.S. and fig. 2 to the U.K. Panels (a) contain the very low frequency measures while panels (b) contain the medium/low frequency components. The figures indicate a positive correlation at the medium/low frequency for both countries, while it is positive for the U.K. but zero or even negative for the U.S. at very low frequencies. This evidence – which is consistent with the introductory remarks of Bean and Pissarides – suggests that the correlation between growth and unemployment is all but clear. However, if one must pick a sign, positive seems more appropriate than negative.

The second experiment, an increase in the bargaining power of workers, indicates that an increase in labor share, *given unemployment*, ought to raise growth. Although the results must be taken with some caution since conventional t-statistics are inappropriate when data have been filtered as I have done, I do not find evidence of this. I find that the correlation between

[1]Results using labor productivity instead of per capita growth measures are similar.

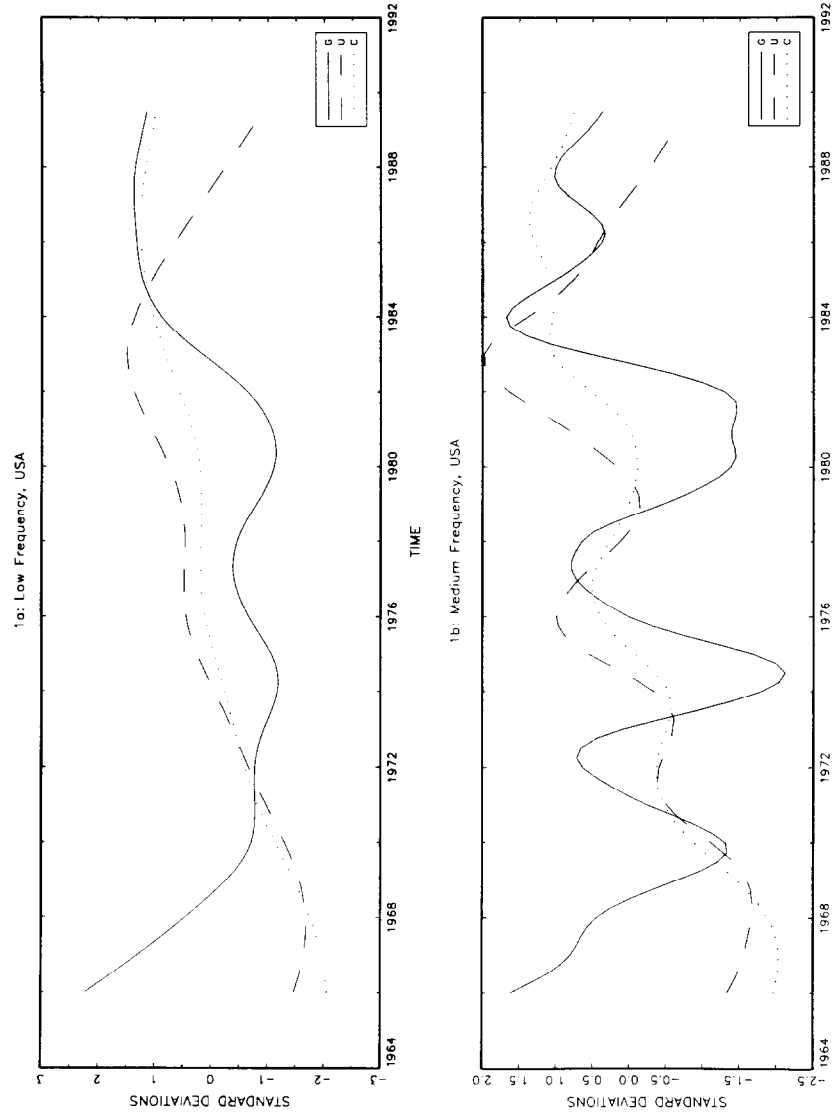
1a: Low Frequency, USA
STANDARD DEVIATIONS
TIME
G
U
C
1b: Medium Frequency, USA
STANDARD DEVIATIONS
TIME
G
U
C

Fig. 1.

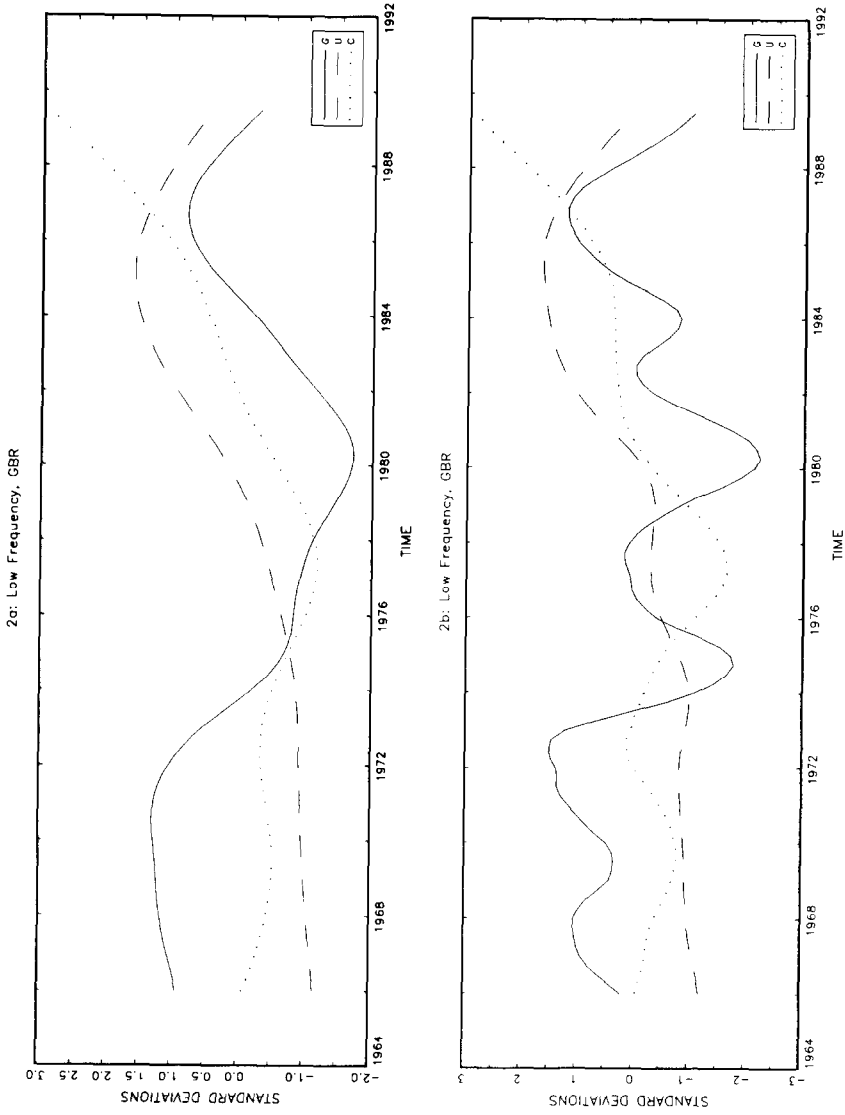
2a: Low Frequency, GBR
STANDARD DEVIATIONS
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-1.0
-2.0
1964
1968
1972
1976
1980
1984
1988
1992
TIME
G
U
C
2b: Low Frequency, GBR
STANDARD DEVIATIONS
3
2
1
0
-1
-2
-3
1964
1968
1972
1976
1980
1984
1988
1992
TIME
G
U
C

Fig. 2.

growth and labor share – controlling for unemployment – is essentially zero for the U.S. and very negative for the U.K. (t-statistics between -6 and -4).

A distinctive implication of the third experiment is that an increase in the marginal propensity to consume is more likely to have a positive effect on growth if the goods market is less competitive. I use corporate profits data for the U.S., filtered as described above, to proxy for medium/low frequency variations in the degree of competitiveness. I then test whether the product of these measures and the filtered consumption/income ratio (as a proxy for the marginal propensity to consume) are positively correlated with growth, controlling for unemployment. Interestingly, I find that the conditional correlation described above is indeed positive and very significant: for the medium frequency data the t-statistic is 4 and for the low frequency data is 7.

I conclude by congratulating the authors for building a nice, simple model. I hope to have enticed them to follow up their work with a serious attempt to gauge the empirical relevance of the many mechanisms and results they describe.