

Comment on:

“Stabilizing an Unstable Economy: On the Choice of Proper Policy Measures”
by T. Asada, C. Chiarella, P. Flaschel, T. Mouakil, C.R. Proaño and W. Semmler,
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The financial crisis that began in the US subprime sector in 2008 has spread all over the world and has meanwhile reached the real sector, too. According to estimates of the International Monetary Fund (2009) world-wide GDP will decline by about 1.3 percent in 2009 before it starts to rise again modestly in 2010. The fact that the severe financial crisis did not lead to an even more drastic decline of production, as in the early 30’s of the last century, is primarily due to central banks and governments conducting most expansionary monetary and fiscal policies.

This paper takes the present crisis as a motivation for analyzing which policy measures are suited to stabilize economies. The authors resort to a Keynesian business cycle model with heterogenous households, represented by a worker household and an asset holder household. The model also comprises a Tobin-like portfolio approach with heterogenous agents in the financial markets. The worker household consumes its total income whereas asset holders have a fixed propensity to consume. Their savings are allocated in the form of money, government bonds or equities. Traders in the equities market either act as chartists, who employ an adaptive expectations mechanism with the actual growth rate of equity prices as reference, or as fundamentalists, who use a forward looking expectation mechanism with the expected growth rate of share prices as reference. Firms in the model invest in physical capital with investment determined by the deviation of Tobin’s q from its long-run value. Since the model features Keynesian elements the goods market is in disequilibrium and firms have a stock of inventory. The government in the economy buys goods it finances through taxes, by running deficits or through seignorage. The central bank buys bonds from the asset holders when issuing new money. Finally, the evolution of wages and prices is described by a wage Phillips curve and by a price Phillips curve, respectively.

The paper derives some comparative statics results with respect to the asset market and performs steady-state considerations that, however, are not too important in my opinion. More interesting are potential sources of instability and the question of which

policies can stabilize the economy. It turns out that a higher degree of price flexibility stabilizes the economy while higher wage flexibility is destabilizing. The latter also holds for higher speeds of adjustment: a higher speed of adjustment of chartists' expectations towards the actual growth rate of equity prices destabilizes the economy just as a higher speed of adjustment in the price Phillips curve. Technically this means that the system undergoes a Hopf bifurcation leading to stable limit cycles and to complex dynamics and possibly to complete instability. When the economy is unstable, the question arises which policy measures can stabilize it. A first measure refers to the labour market and to the negotiation of wages. If the economy is consensus based so that wage-price spirals are avoided the economy will be stabilized. With respect to fiscal policy the authors introduce a tax on capital gains they call Tobin tax and analyze its impact. The effect of that tax is to reduce the gap between the actual growth rate of equity prices and the chartists' expectations and, thus, stabilizes the economy. In addition, an anti-cyclical fiscal policy also raises stability of the model, a result that is not too surprising given the Keynesian character of the model. Finally, monetary policy should react to fluctuations in equity and should buy equity in periods of bust and sell it in boom periods.

This paper presents a sophisticated model featuring real-financial interactions allowing for heterogeneous agents in the financial and in the real sector of the economy. The analysis is competently executed and the paper is technically brilliant. The model takes into account a lot of interrelations and feedback channels. Hence, it pleasantly differs from simplistic partial-analytical models that, nevertheless, derive far reaching policy recommendations. One may argue that the model is not a decision theoretic model built on optimizing agents. However, it must be recalled that the model describes the short-run dynamics of an economy where income effects are much more important than distortions arising from policy measures. Further, there is a microeconomic foundation at the back of the model from which the wage-price interaction can be derived (see Blanchard and Katz, 1999).

The policy implications derived in this paper are intuitively plausible. The fact that an expansionary fiscal and monetary policy can stabilize economies confirms results from orthodox theory and has turned out to be successful in the current crisis. The result that a consensus-based economy, i.e. an economy where agreement between employers and employees on the nominal wage rate is achieved, stabilizes the economy is remarkable and deserves further attention. The same holds for the outcome that a tax on capital

gains also raises stability of the economy. These results should be taken seriously and can serve as a theoretical basis for policy applications in the real world.

Although the results derived are intuitively plausible the paper sometimes fails to highlight the economic mechanisms generating them and to motivate some modelling from an economic point of view. For example, on page 25 it is stated that increasing speeds of adjustment for some variables are destabilizing while a higher adjustment speed of goods prices is stabilizing. What is the economic mechanism behind that outcome? The authors do not say anything about that. On page 30 the authors introduce a tax on capital gains. That changes the chartists' capital gains expectations where now the actual growth rate of equity prices multiplied by the capital gains tax rate τ_e is the reference value that determines how the chartists' expectations change over time. I cannot see an economic rationale why chartists should form their expectation of equity prices on the basis of the difference between the actual price times the tax rate and their current expectation. The equation describing chartists' expectations formation is stated without any discussion. Why don't chartists consider the net capital gains, i.e. $(1 - \tau_e)\hat{p}_e$, in their expectations? Finally, I think that α in equation (88) and in Theorem 5 should be replaced by α_{π_e} .

References:

Blanchard, O.J. and L. Katz (1999) "Wage dynamics: Reconciling theory and evidence." *American Economic Review: Papers and Proceedings*, 89, 69-74.

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