

Report on  
**An Early Warning System to Predict the Speculative House Price  
Bubbles**

Using the estimated fundamentals of the real house price and the HP-filter technique, the paper identifies country-specific speculative house price bubbles for 12 OECD countries. With respect to an early warning indicator, the author(s) also apply three statistical methods for detecting speculative house price bubbles.

The issue addressed in the paper is an important and ongoing one, especially the current tendency of increasing real estate price conditionally on the extremely low interest policy. The paper, however, displays some weaknesses which require improvement in order to make it suitable for possible publication.

**1. Originality:** the author(s) should state clearly mention which are his/her (their) own ideas and which are not. The author(s) fail(s) to mention either him/herself (themselves) or anybody else. There is not a single citation in any of the analytical parts of the paper, even though all of the analytical techniques have already been used in the two papers<sup>1</sup> recently published with deal with the same topic. This lack of originality concerns all parts of the paper, i.e., theoretical, analytical (methods) and the empirical (data) part. Seen in this light, the contribution which this paper makes to the literature may be regarded as slight.

**2. Repeatability:** owing to the lack of detailed description in the analytical part, the empirical results can hardly be reproduced by reader. Some examples of this are:

1. p. 6 [eq. 1]  
→show the five variables in a figure and discuss some statistical properties of the time series.
2. p. 7 [eq. 2]  
→show the estimated coefficients,  $t$ -statistics and diagnostic checking (without request)
3. p. 7 [In addition, since these deviations are sometimes too volatile they are smoothed using a spline a regression.]  
→explain more precisely on *a spline of(?) a regression.*

---

<sup>1</sup>Agnello, L. and L. Schuknecht (2009): Booms and busts in housing markets Determinants and implications. ECB Working Paper 1071.

Alessi, L. and C. Detken (2011): Quasi real time early warning indicators for costly asset price boom/bust cycles: A role for global liquidity, *European Journal of Political Economy* 27, 520-533.

4. p. 7 [··· using the Hodrick-Prescott filter ···]  
→which  $\lambda$ ?
5. p. 7 [Various values of the boom threshold factor were tested and was chosen as the one providing the higher concordance between the deviations from fundamental values and booms.]  
→ if the choice of the boom threshold factor for the second method (the HP-filter method) depends on the first method (the fundamental method), why do we need the second method?
6. p. 7 [···higher than 0.5 standard deviation ···]  
→why just 0.5?
7. pp. 8 [Section 3 and 4]  
→Section 2 already identifies the speculative bubbles. Why do we need Section 3 and 4 to detect them? Explain.
8. p. 9 [eq. 4]  
→One can minimize the sum of two types of errors regarding a statistical decision, but cannot maximize the sum of successes, because of the non-existence of an opposite function to a loss function.  
→You therefore need a loss function here. See Alessi/Detken, eq. (1) p. 523.
9. p. 11 [The forecasting accuracy of the logit and probit models is relatively high. This implies that they can be used as an early warning system in order to predict the future speculative bubbles in the housing markets.]  
→What the models can detect in practical applications will merely be a description of the current real house price/bubble (i.e., a warning for the current situation), not a forecasting of future speculative bubbles (i.e., not an early warning).

### 3. Some more comments:

1. Discuss the empirical results with respect to those of Agnello, L. and L. Schuknecht (2009) and Alessi, L. and C. Detken (2011).
2. Discuss also some weak points of the methods used.
3. English written in the paper should be generally improved. Some typical examples of this are:
  - (a) The title of the paper should be: An Early Warning System for Predicting Speculative House Price Bubbles
  - (b) p. 7 [Various values of the boom threshold factor were tested and (something is missing here) was chosen as the one providing the higher concordance between the deviations from fundamental values and booms.]