Referee report on
"Testing for breaks in cointegrated panels - with an application to the Feldstein-Horioka puzzle"
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ref. MS 72-1.
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General remarks

In the paper a bootstrap strategy for testing the stability of cointegrating vectors in panels is proposed, its performance is examined through simulation experiments and finally it is applied to test the stability of the long-run relation between saving/GDP and investment/GDP ratios in European countries.

The paper is interesting, in fact there is not much literature covering the small sample performance of stability tests of cointegration in panels, in particular when both time and unit (weak) dependence is allowed.

The methodology is correct and the simulation experiments rather eloquent. On the other hand the results concerning the applications are not very strong.

Problems and suggestions

Monte Carlo design. By sampling the coefficients γ's, ϕ's and σ^2's, you're marginalizing with respect to some arbitrary *prior* distribution on the coefficients. Why do you chose uniforms on those ranges? Are these ranges somewhat typical in macroeconomic application? I think your simulations would gain in credibility, if you could show on some data (or in the literature) that these ranges are frequently encountered in real world applications.

Comparing the power of tests. Usually power comparison are carried out adjusting for the size (size-adjusted power), when there are significant size-distortions. But since your tests are bootstrap-based also the non-size-adjusted power is an important piece of information. If you have retained all the simulated test statistics it does not require much effort providing the reader with the size adjusted power (you just have to fix the 5% bootstrap critical value and use it for the power

simulations), or, if the difference between size-adjusted and unadjusted powers is not relevant, at least a comment on it.

Empirical illustration. From Table 8, it is not very clear if the null is rejectable or not. My impression is that, in general, for any cointegration test it is very hard for such data to discern between the hypothesis of cointegration and vs. a very strong correlation on the increments of $\log(S/GDP)$ and $\log(I/GDP)$. From the visual inspection of the data it is hard to find breaks: probably in many countries time series are just not cointegrated. It would be interesting to simulate pairs of integrated processes that are not cointegrated, but have highly correlated increments, and see how your break tests behave. My conjecture is that the uncertainty among the various test statistics is just a product of the condition described. The high dispersion of the break points (Table 9) may be a further evidence in favour of this conjecture.

Please use the lines above to comment your application more extensively.

Equations. Please add some equations (where opportune) in the text in order to make the reading more fluid. For example the equation in Table 9 should be also in the text.

Comments by page and line

p. 2 - l. 29 *who report findings are* should be *who report findings that are*

p. 2 - l. 30 *are to expected* should be *are to be expected*

p. 2 - l. 31 *last 1980's* should be *late 1980's*

p. 2 - l. 31 *actually place* should be *actually take place*

p. 3 - l. 33 try to find a way to separate the content of an hypothesis from the rest of the text, for example H_0 :"coefficient stability", otherwise the text is hard to follow.

p. 3 - l. 33 *appending* should be *adding*

p. 4 - l. 4 it is not clear what you mean by *mean estimation error*: do you refer to distortion, or dispersion (e.g. mean absolute estimation error)

p. 4 - l. 5 delete *so much so* and see point [p. 3 - l. 33].

Fig.1 The x-axis numbers seem not well aligned with the bars: for example, the peak is on -2, -1 or 0?

p. 5 - l. 5 *in also* and should be *is also*

p. 5 - last 2 lines and following it is not clear what you want to show: if $a = 0$, x_{it} does not have breaks, the break is only on the relation between x and y

eq. (4) Euqtions (4) and (5) are contradictory, (4) should be the wrong one

Fig. 3A and 3B Please put dates on the x-axis and percentages on the y-axis. Putting the name of the country to which each graph belongs in the graphs (on a side for example) would also improve the readability.