Decision letter

I have received two reports on your paper and have read it myself too. Referee 1 is generally positive while Referee 2 is rather negative. While I do not share all of the concerns on Referee 2, I believe that his/her report makes some important points and highlights some potential weaknesses of your paper.

I would like to ask you therefore to revise your paper, taking account of the points made by the two referees. In particular, I believe you should make the following changes.

(1) R1 makes a strong point about collapsing the various measures of openness into a single indicator (or a few indicators) using PCA. This method has two important advantages. First, it combines multiple, often correlated, measures into a single weighted one, with the weights determined endogenously. You use a number of openness variables that, in principle, measure the same concept, yet they feature different figures. PCA would allow you to combine the information contained in this multitude of variables into a single one which, hopefully, will capture the true openness of countries. Second, PCA may also yield more than one measure and the resulting factors are, by definition, orthogonal to each other. This may be especially relevant for your analysis because some of your explanatory variables may reflect both openness as well as something else. For example, black-market premium may reflect the pervasiveness of regulation and macroeconomic imbalances as much as, if not more than, openness to trade.

Therefore, I would like to see you to make a serious effort to address this comment. Your concerns about different units can be addressed by rescaling the original variables. Alternatively, you could apply PCA only to similar variables (in this case, if you run PCA separately on different sets of variables, the resulting factors will not generally be orthogonal to each other).

(2) R2 is right in criticizing some methodological weaknesses of your analysis. Most notably, you could easily reformulate your analysis in panel setting, using 5 or 10 years averages, as he/she suggests (see the well-known paper by Islam that extends the Mankiw, Romer and Weil model into panel setting).

(3) You need to address the point that, at times, your dependent variable refers to the period 1960-2000 but some of your explanatory variables apply to a shorter period. Similarly, in the case with Tables 8 and 9, you include variables pertaining to multiple periods alongside one another in the same regression.

(4) The construction of new trade policy measures is the most original part of your analysis but it is also the part which is particularly weak and open to criticism. First, on p. 27, you point out that it would be better to estimate a more elaborate model, which would include the variables used in the gravity literature, instead of the rather parsimonious model in equation (3). I find it unconvincing that bilateral trade data are not available for the period you consider. There is a huge volume of gravity literature, some with data going quite far back. I think even if you are unable to find data for 1960-2000, you should be able to obtain them for a sufficiently similar period. Second, when constructing your own measure of trade policy, you are using coefficients which are actually insignificant. This is the case of owti in all three measures. The third measure only includes insignificant coefficients! What is the value of the information contained in such measures? You must do better than this.

(5) I find your sensitivity analysis lacking in two respects. First, you refer to the previous studies by Levine and Renelt and Sala-i-Martin, which test the robustness of candidate variables by including them alongside varying combinations of other variables. They conclude that a variable is a robust factor of growth only if it consistently comes up significant in a sufficient fraction of all regressions. What you do, however, falls far short of that. You select a set of basic variables and include each openness variable in only one such regression. The fact that they appear insignificant in one regression specification may or may not imply that they would similarly appear insignificant in other specifications. Second, the underlying model might be unstable: given the on-going progress of trade liberalization and globalization, the effect of openness on growth may be different in the 1960 and the 1990s. To address this possibility, you should re-estimate the regressions for individual decades.