Research Review

The effects of exchange rate regimes on economic growth: evidence from propensity score matching estimates.

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Abstract

After a brief summary, this review points out the main advantages and the main drawbacks of the research.

Keywords: propensity score matching, time series, exchange rate regimes, economic growth

1 Summary

The paper focuses on the impact of different exchange rate regimes on economic growth and employs a variety of non-parametric matching methods to address potential biases in previous research. For this purpose a comprehensive dataset covering 164 countries from 1970 to 2007, considering the period after the collapse of the Bretton Woods fixed exchange rate system, and many control variables. Whereas previous studies used mainly linear regression models, likely introducing self-selection bias and other issues, the authors adopted matching techniques to estimate the Average Treatment Effect (ATE) of exchange rate regimes on economic growth, aiming to address self-selection bias.

In this study, propensity score is employed to estimate the effect of exchange rate regimes on economic growth. This approach involves creating a probability score for each country to determine the likelihood of choosing a floating or fixed exchange rate regime based on observable covariates. Moreover, various matching methods, including nearest-neighbor matching, radius matching, kernel matching, and local linear matching, are tested to find suitable matches between countries with different exchange rate regimes.

The results of all matching methods consistently indicate that the average treatment effect of floating exchange rate regimes on economic growth is statistically insignificant. In other words, the study finds no evidence to suggest that adopting a floating exchange rate regime leads to higher economic growth compared to a fixed exchange rate regime.

2 Advantages and Limitations

The authors used an innovative methodology for the research area since by using propensity score and a variety of matching techniques, they addressed potential biases that may have affected previous researches. Moreover, the use of a comprehensive dataset covering 164 countries over a substantial time period provides a robust foundation for the analysis and the inclusion of various control variables helps control for potential confounding factors.

Through a common support analysis, the research ensures that there is good overlap between the control group (fixed exchange rate regime) and the treatment group (floating exchange rate regime). This common support ensures that observed characteristics of

treatment group countries can also be found among control group countries.
The SUTVA assumptions is satisfied by the pre and post Bretton Woods regimes.
Finally, The paper reports consistent results across different matching methods and conducts also a robustness analysis using Rosenbaum's bounds to assess the influence of hidden biases. This approach adds credibility to the findings and strengthens the conclusion that exchange rate regimes do not significantly affect economic growth.

On the limitation side, instead, the paper relies on the assumption of common support between control and treatment groups. While this is a crucial assumption in propensity score matching, the paper should provide some check analysis to explore the sensitivity of results to variations in this assumption.
Moreover, the authors are dealing with a panel dataset, hence the classic matching methods used may not be very appropriate since they lack to consider the time dimension. For instance, one may refine the matching first selecting a set of control observations from other units in the same time period that have an identical treatment history for a specified time span so that matched control observations become similar to the treated observation in terms of covariate history. Furthermore, it is not clear whether the authors used a multilevel model to estimate the propensity score. This kind of approach could improve significantly the estimation since it considers also the time variability of the covariates. Finally, the paper concludes that there is no significant impact of exchange rate regimes on economic growth. However, it's essential to recognize that the findings may not apply universally across all time periods, countries, or economic contexts. Some discussion of the potential limitations of generalizing these findings could enhance the paper's completeness.

3 Conclusion

In conclusion, the paper introduces an innovative methodology and uses a comprehensive dataset to examine the impact of exchange rate regimes on economic growth. Overall, the paper makes a valuable contribution to the empirical literature on exchange rate regimes and economic growth but should be interpreted within the context of its limitations.