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Bangladesh: An Analysis of NEER, REER, and G-rates

As they are not provided by the Bank of International Settlements (BIS), we have manually calculated the nominal and the real effective exchange rates (NEER and REER) for Bangladesh. Our methodology mimics the calculations done by BIS, although in a slightly simplified version as (a) only the seven largest trading partners are considered (in terms of currencies these are EUR, IRN, USD, CNY, GBP, SGD, and JPY, which account for about 70% of Bangladesh's total trade; no other currency contributes more than 3%), and (b) third country effects on weights are ignored. The results are shown in the figure on the next page.

We see from the black curve that since the beginning of 2013 the Bangladeshi taka has appreciated by about 10% in nominal, effective terms (i.e. actual market rates weighted against trading partners). This is because the taka followed the US dollar closely over that period, when the US dollar was strengthened considerably. The red curve shows that in real terms (i.e. when exchange rates are inflation-adjusted) the appreciation is even stronger, namely 25%. This is because Bangladesh had a considerably higher inflation (6-7% per year) than most of its trading partners (where it is 1-2% per year). If prices and wages go up (which is what inflation represents) and the exchange rate is stable, then the competitiveness of export companies is hurt (unless production efficiency goes up at a similar rate as inflation).

Finally, the blue curve in Figure 1 shows how the nominal effective exchange rate would have behaved if the taka had been operated based on GCU exchange rates (G-rates). In this case the adverse effect of the strengthened US dollar is dampened considerably; the appreciation is only about 2% in total over the two-and-a-half-year period. By adjusting the Index-Key and the calibration factor, corrections for (expected) inflation can be weighted into G-rates, which can still be seamlessly updated as often as desired.

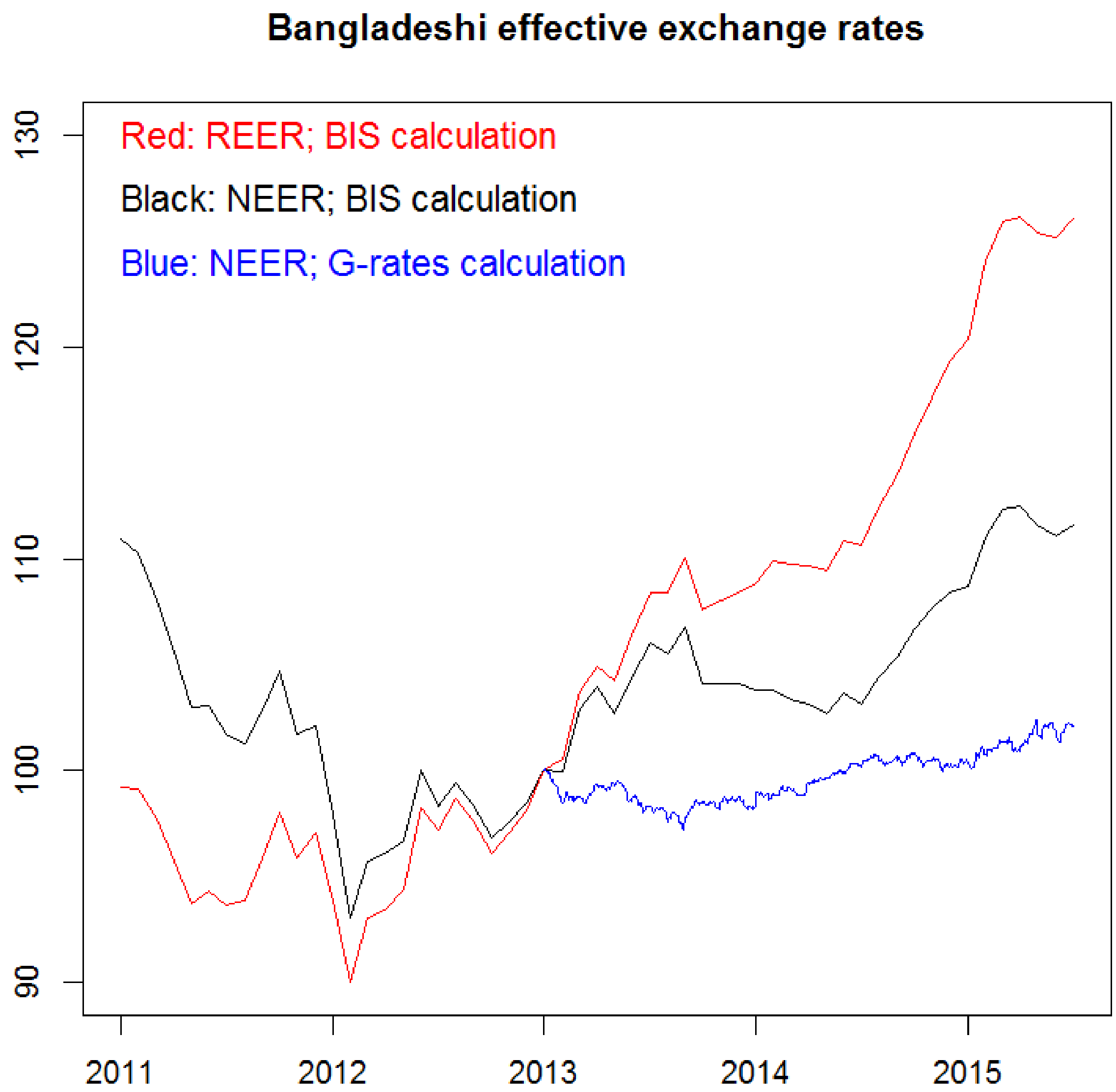

Figure 1 Effective exchange rates for Bangladesh over the period early-2011 to mid-2015, with early 2013 as base. The black curve is the nominal effective exchange rate (NEER) calculated with the BIS methodology. The red curve is the real exchange rate calculated with the BIS methodology (i.e. the inflation-adjusted version of the BIS-NEER). The blue curve is NEER calculated as the trade-weighted average of G-rates (which are available from early 2013). Internal reference: `Dropbox/GCU Rolf/NEER and REER/CalculateBanglaEER.R`