Continuous wavelet analysis of Chinese renminbi: Co-movement and lead-lag relationship between onshore and offshore exchange rates

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Abstract: This study examines the interdependence between the onshore (CNY) and offshore (CNH) Chinese renminbi exchange rates by employing continuous wavelet analysis. We pay particular attention to the effect of CNY exchange rate reform in 2015. We find that the interdependence between the CNY and CNH exchange rates has increased significantly following the 2015 reform. In addition, we find higher coherence for the lower frequencies than for the higher ones, suggesting that the interdependence between the two renminbi exchange rates is stronger over longer time horizons. Our evidence also indicates that, after the 2015 reform, the CNH tends to lead the CNY across almost all frequencies, except at the lowest frequency where the CNY leads the CNH.