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Measuring the Financial Cycle in South Africa

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This paper sets out to measure the financial cycle in South Africa. Financial cycles provide a broad perspective on the evolution of risks to financial stability, and therefore provide a useful monitoring tool for policymakers who are required to set macroprudential policies. A robust measure of the financial cycle is currently particularly important for South African policymakers, given the renewed emphasis on the financial stability regulatory and supervisory framework provided by the Financial Sector Regulation Act, which was signed into law in September 2017.
Understanding financial cycles is viewed as critical for informing the use of countercyclical macroprudential policy, but there is no consensus regarding the definition of financial cycles nor on the methodology that should be employed to measure them. Despite a large and growing international literature, we are also not aware of published research that assesses the options available for measuring the South African financial cycle.

To fill this gap, we propose identifying the main characteristics of the financial cycle in South Africa using three different approaches. First, we apply traditional turning point analysis to identify the financial cycle by detecting peaks and troughs in the individual component variables that make up the cycle. Second, we employ a frequency domain approach that uses band-pass filters to isolate the cycles that correspond to medium-term frequency intervals. Third, we use a multivariate model-based approach to extract cycles using unobserved components time series models. We then provide a comparison of the results of the three approaches, and compare the estimates of the financial cycle with those of the business cycle to determine whether the cycles are distinct from one another. We begin, however, by defining financial cycles and selecting a set of financial variables that can potentially capture the main characteristics of the South African financial cycle.

Financial cycles provide a broad indication of the change in risks to financial stability and therefore provide an important monitoring tool for policymakers. Allowing for the phase of a country's financial cycle is also important when implementing macroprudential policy, given that the impact of policies may differ depending on the phase of the cycle. An understanding of financial cycles is therefore a key element informing macroprudential policymaking.