

**THE "BUSINESS CYCLE" AS SLOWLY
VARYING COEFFICIENTS**

by

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ABSTRACT

This paper builds on the analysis developed in several previous papers by Ramsey with various co-authors. A short time scale dynamic model of production indices has been constructed. The coefficients of the model are assumed to vary slowly through time. This variation in the coefficients of the dynamic model represents the variation in the index known as the "business cycle". In this paper, the time variation of the coefficients is analyzed in detail. Several analytical procedures are used to detect any systematic variation in the time series. The most intriguing result is that close return plots reveal, besides evidence of evolution, epochs, and transition periods between them, a surprising amount of periodicity, quasi-periodicity, and there is even evidence of more complex structures. The next step is to decide how to model the evolving structure now revealed in the time varying coefficients.

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