



WP/21/67

# IMF Working Paper

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Beautiful Cycles: A Theory and a Model Implying a Curious  
Role for Interest

by Marco Gross

***IMF Working Papers* describe research in progress by the author(s) and are published to elicit comments and to encourage debate.** The views expressed in IMF Working Papers are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

I N T E R N A T I O N A L M O N E T A R Y F U N D

**IMF Working Paper**

Monetary and Capital Markets Department

**Beautiful Cycles: A Theory and a Model Implying a Curious Role for Interest \*****Prepared by Marco Gross**

Authorized for distribution by Vikram Haksar

March 2021

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**Abstract**

Where do economic cycles come from? This paper contemplates an utmost minimalistic model and underlying theory that rest on two assumptions for letting them emerge endogenously: (1) the presence of interest-bearing debt; and (2) a degree of downward nominal wage rigidity. Despite its parsimony, the model generates well-behaved, self-evolving limit cycles and replicates six essential empirical facts: (1) booms are long- while recessions short-lived; (2) leverage is procyclical; (3) firm profit and wage shares in GDP are counter- and procyclical, respectively; (4) Phillips curves are downward-sloping and convex, and Okun's law relation is replicated; (5) default cascades arise endogenously at the turning points to recessions; (6) lending spreads are countercyclical. One can refer to the model as being of a Dynamic Stochastic General Disequilibrium (DSGD) kind.

JEL Classification: E20, E30, E40, E51, P10.

Keywords: Business and financial cycles.

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\* The paper has benefited from valuable feedback from and discussions with Tobias Adrian, Jesper Linde, Cars Hommes, Joseph Stiglitz, Michal Andrle, Marcin Kolasa, and William Oman. Specific additional thanks for a particularly detailed review go to Marc Lavoie and Andrea Roventini. The paper has also benefited from ongoing work on a larger-scale macro-financial model joint with Sander van der Hoog and Dirk Kohlweyer. Moreover, it gained from valuable feedback obtained at an IMF-internal seminar in Winter 2021. A Matlab code is made available online (see "Link to Data for this File"), which allows readers to simulate the model that is developed in this paper.

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