

Understanding Global Productivity Cycles

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Abstract. This paper analyzes the common drivers of sectoral productivity cycles in nine advanced economies during the past three decades. We estimate a dynamic factor model that decomposes fluctuations in sectoral productivity into: (i) a global factor, which captures fluctuations common to all countries and sectors; (ii) sector-specific factors, which capture fluctuations common across countries for each sector; (iii) country-specific factors, which capture fluctuations common across sectors within each country; and (iv) idiosyncratic factors, which are specific to each sector in each country. We report two major results. First, the common factors constitute an important source of variation in sectoral productivity cycles, providing evidence for a global productivity cycle. Specifically, the global and sector-specific factors together account for about 25 percent of the variation in sectoral productivity cycles. Second, the global and sector-specific productivity disturbances play a significant role in driving sectoral business cycle fluctuations as they explain one-third of the variation in sectoral output.

Keywords: productivity, global, sector-specific, dynamic factor model.

JEL Codes: E32, F44, C32

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