

## Understanding Global Productivity Cycles

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This paper analyzes the common drivers of sectoral productivity cycles in 13 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 (global and sector-specific) 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 one-fourth of the variation in sectoral productivity cycles, ranging from 13 percent in the United States to 35 percent in France. Second, the global and sector-specific components of productivity disturbances play a significant role in driving business cycle fluctuations. They, on average, account for about 42 percent of sectoral output volatility, explaining from 30 percent of the forecast error variance in Denmark to 56 percent in Germany for the one-year horizon.