

2020

36th IARIW General Conference

Paper Prepared for the 36th IARIW General Conference, Oslo, Norway, August 24-28, 2020

Accounting for Intangibles

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The two fundamental properties of intangibles are durability and nonrivalry. The first of these properties is now reflected in the treatment of intangibles in the System of National Accounts (SNA). The second is largely ignored in the SNA and in related measures of productivity. Yet, nonrivalry of intangible technology plays a central role in Schumpeterian new growth theory, helping to make sense of how markets for R&D and technology are organized. We propose a Schumpeterian paradigm in the treatment of intangibles in the SNA, and we show how to proceed in this direction by embracing the nonrivalry of intangibles in a tractable dynamic accounting framework. To illustrate the relevance of this approach for national accounting practice, we develop parallel models of the economy, similar except that one treats intangibles as rival and the other treats them as nonrival. While the treatment of intangibles as rival or nonrival is irrelevant for measuring the level of GDP, we show that it has first-order effects on the measurement of multifactor productivity (MFP). The distinction also matters for what economic transactions to include in the stock of intangibles. Our analysis argues for a narrower scope than is currently applied in the SNA, in particular removing spending on software copies. Finally, we consider the global implications of our approach to accounting for intangibles.