

## On the economics of Circular Economy

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### Abstract

The shift to a circular economy (CE) is increasingly seen as important for addressing the complex challenges of population growth, climate change, and the need to boost production in food, feed, fiber, and bioenergy amidst depleting natural resources. Due to their sheer size and complexity, supply chains are viewed as major sources of resource waste and, as such, systems in need of attention and great potential in the quest for a more responsible management of limited resources. In this context, we present a general, empirically relevant, integrated multi-market framework that illustrates the supply chain transition to a more circular system and enables the development of technical, environmental, and economic metrics of circularity. Additionally, we discuss the economic issues that arise during this transition and the policy options to support a successful shift towards more circular supply chains.

Keywords: circular economy, supply chains, economic analysis, economic challenges, optimal policy response