

Abstract for “Measuring Biological Capital in GDP”

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In 2007, US farmers produced working farm animals worth \$2.2 billion and long-lived crops worth \$4.1 billion. In addition, US landscapers planted \$18 billion worth of decorative lawns and trees. The System of National Accounts 2008 recommends that countries capitalize all three asset categories in GDP (10.92 and 10.95). At the current time, BEA treats working farm animals as inventory rather than capital. Long-lived crops and decorative landscaping plants are not tracked as capital at all. This paper measures investment, prices and capital stock of all three biological assets back to 1929. The paper then recalculates US GDP when those three biological assets are capitalized.

Biological capital is less important now than it was in 1929. In 1929, aggregate investment in plants and animals was 0.77% of nominal GDP and aggregate capital stock was 13.1% of nominal GDP. By 2011, aggregate investment was only 0.21% of GDP and aggregate capital stock was only 6.5%. Prices for the three biological assets track overall US GDP prices, so capitalizing long-lived animals and plants has little impact on average inflation rates.