

Income drives the economy, not prices

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Politicians and business leaders often make claims about why certain sectors in the economy are shrinking, such as the decline in U.S. manufacturing is due to robotics or trade with China. Such assessments are flawed, as the sectoral composition of the economy is mostly driven by preferences and not by productivity, according to a recent study that

models this long-run structural change in the economy. As consumers become richer, they spend more on services such as health and education whose demand is much more income elastic, and less on agriculture and manufactured goods. Until now, productivity has often been considered at least as important, if not more, than preferences, in shaping the sectoral composition of the economy. The results are published in *Econometrica*.

"The reason why we spend a smaller share of our [income](#) in manufacturing goods and more in services is not because somebody outside the US is producing manufacturing for us, or because manufacturing goods are becoming cheaper, it's because we want to consume more services as we become richer," explains study co-author Diego Comin, a professor of economics at Dartmouth. "This is a sign of wealth, as opposed to a sign of a trade policy or trade competition, or productivity growth in a certain sector. It's easy to assume that changes in the economy are due to something external to us like trade or technology. Yet, people may not realize the consequences our consumption patterns have on the economy."

To examine the underlying factors that drive the composition of the economy, researchers from Dartmouth, Boston College and Northwestern University used household data from the U.S. and India, and country-level data for 39 countries from the post-war period, from 1970 to 2005. They grouped household data into three categories: agriculture (products from crops or animals), manufacturing (goods that you can touch) and services for which no products are transferred.

The findings revealed that as countries become richer, their expenditures moved towards services and move away from agriculture and manufacturing smoothly over very long periods of time, rather than shifting abruptly from one sector to the next once a certain income threshold is crossed, as other researchers have hypothesized. Because the

impact of income on the sectoral composition of the economy does not wind down, income and preferences play a larger role than productivity in affecting the sectoral composition of the economy. As part of the analysis, the researchers created a [mathematical model](#) consistent with this observation.

Approximately 80% of the U.S. economy is comprised of services according to the U.S. Bureau of Economic Analysis. Services include: accommodation, arts, business, education, entertainment, financial, government, health, information, insurance, recreation, technology, telecommunication, transportation, and more. "When the [economy](#) experiences a decline in manufacturing, this is a reflection of consumers wanting to buy less manufactured goods and spend more on services," says Comin. "It's part of our preferences. As you make more money, do you want to buy a new refrigerator or help pay for your child's college education? A new fridge or other consumer product is likely to be a small share of expenditure."

The researchers found that the model applies to both data on a household level and country level. They tested their model against others and found that it fits the data better than others because it captured well the empirical observation that the impact of income on consumption of services vs. [manufacturing](#) is stable over very long periods of time.

"Our results demonstrate that once preferences are modeled correctly, they account for over 90% of the sectoral transformation of a broad set of economies, including the U.S.," explains Comin.

More information: Diego Comin et al. Structural Change With Long-Run Income and Price Effects, *Econometrica* (2021). [DOI: 10.3982/ECTA16317](#)

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