Macro Vision

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What is the size of agribusiness in Brazil?

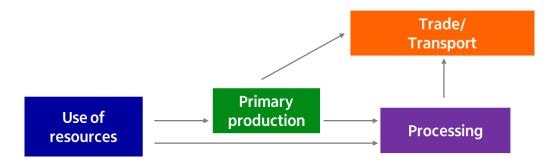
- The answer to the question above is more complex than it seems. Official statistics classify only primary production, "inside the farm gate," as "agri GDP," and its weight in the economy is around 6%. However, there are other activities that also form part of agribusiness. In industry, there are sectors responsible for processing products directly from the land before they go through other stages in the value chains. In the services sector, there are also parts of commerce and transportation that are intrinsically related to the sector. Beyond these activities, agribusiness extends transversally across the economy. This footprint of agribusiness appears in industrial and service activities where part of their demand is driven by the sector, despite not being directly part of it.
- In this study, we estimate that the portion of GDP directly identifiable as agribusiness including primary production, agroindustry (only the first processing links in value chains), and trade and transport services involved in product distribution amounts to almost 15% of GDP in the most recent available data. Considering how much primary production and processing demand from other sectors, we mapped that the footprint of agribusiness in the rest of the economy is around 7% of GDP. Therefore, the answer to the initial question, from a GDP perspective, is approximately 21%. Applying a similar approach to labor market data, we estimate that the corresponding employment share would be 17% of the working population.
- We also analyzed the importance of agribusiness in external trade accounts. We estimate that agribusiness accounted for about 31% of Brazil's total trade flow in 2024. From the perspective of the trade balance, over the past 12 months, Brazilian agribusiness recorded a surplus of approximately USD 109 billion, making it the main contributor to the country's trade surplus, more than compensating for the existing deficit in the aggregate of other sectors.

1. What is agribusiness's share of GDP?

To measure the size of agribusiness in the Brazilian economy broadly, we divided our analysis into the following categories (more details in the appendix):

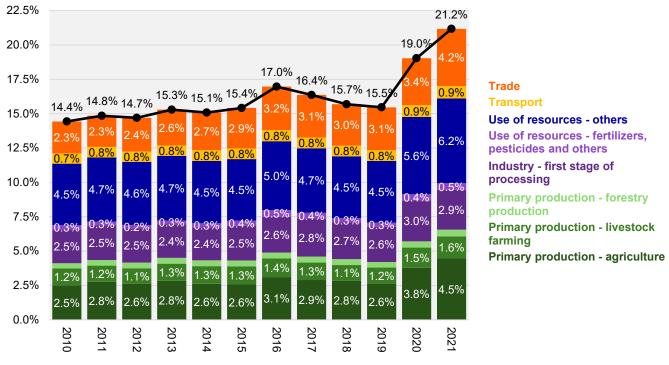
- **Primary Production:** Corresponds to what is usually considered "agri GDP" in IBGE reports. This "inside the farm gate" segment includes only the direct products of agriculture, livestock and forestry, fishing, and aquaculture grains, cereals, fruits, vegetables, animals, etc.
- **Processing:** This category refers only to the first stages of value chains immediately after primary production/harvest. These industrial processes have a very close relationship with their primary input (often occurring in vertically integrated operations) such as cattle slaughtering and meat cutting, coffee roasting, and sugar and ethanol production. We do not include later industrial production stages that use agricultural-origin products at a more advanced stage of value addition, such as manufacturing a coffee-based beverage from roasted coffee or making clothing from natural fibers.
- **Use of Resources:** This category incorporates the value added by everything that primary production and processing consume, directly or indirectly, from other sectors. This group provides a measure of agribusiness's footprint in the rest of the economy. It includes both activities strongly associated with agriculture, such as fertilizer and other input production, and more generic products and services, such as electricity, fuel, and financial intermediation.
- **Trade and Transportation:** Activities related to the commercialization and distribution of primary or processed products.

Below, we illustrate the position of each of these categories along value chains.



In the following chart, we present the weight of each category as a percentage of GDP. It is quite evident that agribusiness's relevance has increased over time, with acceleration in the last two years of available data, driven by the strong 2020 harvest.

Chart 1: Agribusiness-related activities as a share of GDP



Source: IBGE, Itaú

Unfortunately, the data for this analysis is released with a considerable lag and currently only covers up to 2021. For 2022 onward, we only have more aggregated GDP figures, which allow us to track the evolution of primary production but not the other categories. However, assuming that the relationship between primary production and the other activities in question has remained relatively stable over the past few years, and knowing that primary production declined from 6.6% of GDP in 2021 to 6.0% in 2023 (the latest official annual GDP data), the total agribusiness share should also have seen some decline in its GDP percentage. The same applies to 2024 when agricultural GDP fell. In 2025, we project a 4.8% expansion in primary production, which should lead to some gain in GDP share. In an upcoming study to be published soon, our team will estimate the spillover effects of agricultural GDP on other economic sectors.

To estimate the size of each group, we use IBGE's Input-Output Table (TRU), which lists the production and intermediate consumption of different economic activities, as well as trade and transport margins. For the Primary Production and Processing categories, the calculation is simply the sum of the value added by each sector. For the Use of Resources category, we map the value added by activities according to how much the intermediate

consumption¹ (goods and services used as inputs, in a broad sense) of the two previous groups represents in relation to the total production of the sector in question. Finally, for Transport and Trade, we rely on the respective margins applied to primary production and processing.

It is important to note that this mapping is not perfect: although the TRU provides much greater granularity than quarterly GDP reports, some categories remain too aggregated for this analysis. One example is the beverage industry, which encompasses a wide range of activities but appears as a single entity in the TRU, without subdivisions. Within this group, it would be reasonable to say that wine production, which is intrinsically linked to grape cultivation, is part of agribusiness. However, it seems excessive to classify soft drink manufacturing under the same criteria. Where such limitations were encountered, we chose to exclude the entire activity from the calculation – the most relevant case being the beverage industry itself, which, if considered in full, would add 0.6 percentage points to the Processing category.

2. What is agribusiness's share of employment?

Applying a similar approach to microdata on employment available from IBGE's PNAD (*National Household Sample Survey*, with data from the third quarter of 2024), we estimate that Primary Production and Processing account for 10% of the employed population in the country. By cross-referencing microdata with information on intermediate consumption calculated using IBGE's Input-Output Table, we estimate that direct employment in trade, transport, and other industries influenced by agribusiness – the agribusiness footprint – adds another 7% (we estimate indirect employment using the ratio of agribusiness intermediate consumption to total sector production). The total employment impact of agribusiness reaches 17% of the workforce, or just over 17 million jobs. Limitations similar to those described in the GDP section also apply here.

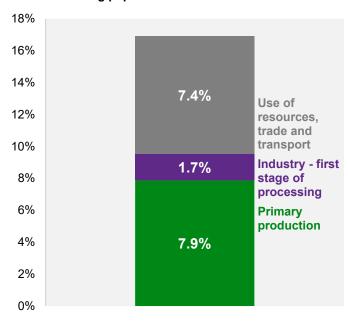


Chart 2: Employment in agribusiness-related activities as a share of working population

Source: IBGE, Itaú

¹ For that, we use Leontief's inverse matrix, following the same methodology applied in this recent <u>study</u>, to estimate direct and indirect consumption coefficients of the sector.

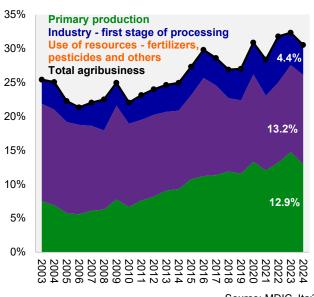
3. What is agribusiness's share of external trade?

To estimate agribusiness's role in Brazil's trade flow, we categorized export and import lines based on the classifications of Primary Production and Processing (the first industrial stage linking agriculture to the rest of the value chain). Additionally, given the greater granularity in external trade data compared to Input-Output Table breakdowns, we directly mapped the share of agricultural inputs (covering traded volumes of seeds, fertilizers, pesticides, machinery, and equipment used in primary production) instead of using a broader aggregation for the "agribusiness footprint."

Using this approach, we estimate that the sum of primary and processing sectors (agriculture and agroindustry) accounted for 26.4% of Brazil's total trade flow by the end of 2024. Since 2010, there has been a significant increase in primary production's share, particularly through expanding exports of agricultural commodities (notably soybeans and corn), resulting from sustained productivity improvements in the sector. When including the trade flow of agricultural inputs, agribusiness's trade flow reached 31% at the end of 2024.

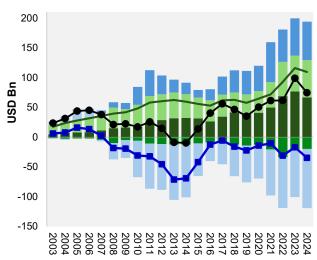
Moreover, agribusiness's growing role in national external accounts – driven by exports – has contributed to generating consistent trade surpluses. Over the last 12 months, Brazilian agribusiness recorded a USD 109 billion surplus. While the sector typically runs a deficit in inputs (especially fertilizers, pesticides, and machinery), its structural surplus in production and processing makes it the primary contributor to Brazil's trade balance, more than offsetting deficits in other economic sectors.

Chart 3: agribusiness trade flow (imports+exports), % of total



Source: MDIC. Itaú

Chart 4: trade balance



Extractive Manufacturing (ex agri inputs and processing) Agri industry - first stage of processing

Agri primary production Agri inputs (use of resources)

- --- Agri balance (primary, agri industry and inputs)
- -- Other sectors trade result
- -- Total trade balance result

Source: MDIC, Itaú

Chart 5: trade flow of agricultural products

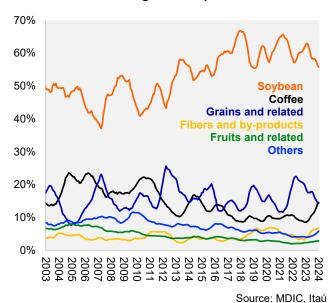
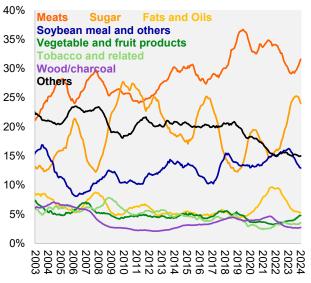


Chart 6: trade flow of agri industry products (first stage of processing)



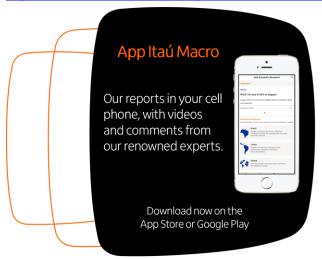
Source: MDIC, Itaú

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