OXFORD ECONOMICS

THE ECONOMIC IMPACT OF THE AGRI-FOOD SECTOR IN VIETNAM

2021

FIA FOOD INDUSTRY ASIA

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EXECUTIVE SUMMARY

Throughout a tumultuous year for the Vietnamese economy, in which travel, logistics, trade, and business operations have been tested in unprecedented ways, the agri-food value chain has demonstrated its resilience. It has placed food on the table at stable prices, provided an income and employment for a huge proportion of the country's workforce, and created opportunities for businesses at each stage of the value chain.

From farm to fork, the Vietnamese agri-food sector holds an unparalleled position in the economy and plays a pivotal role in its future economic development. Its performance is critical to household wellbeing and it is an economic powerhouse, responsible for millions of jobs, as well as being a major contributor to total economic output and government tax receipts.

Looking beyond the coronavirus pandemic, there are many challenges facing the agri-food sector that will have repercussions for the wider economy. These include major risks to food supply and demand. They also include fiscal policy risks, that could result from governments adjusting their spending and taxation policies to recover from the economic impact of COVID-19 on public finances.

Oxford Economics was commissioned by Food Industry Asia (FIA) to provide a comprehensive analysis of the economic impact of the agri-food sector in four major Southeast Asian countries: Indonesia, Thailand, the Philippines, and Vietnam. In this first of its kind study, we analysed five years of economic activity across the entire food value chain—from farm-to-fork. We leveraged the Oxford Economics Global Economic Impact Model to understand where and how the agri-food sector adds value to these economies, as well as our macroeconomic forecasting tools and expertise to consider the future trajectory of the agri-food sector, and the challenges it faces going forward. This report focusses specifically on Vietnam.

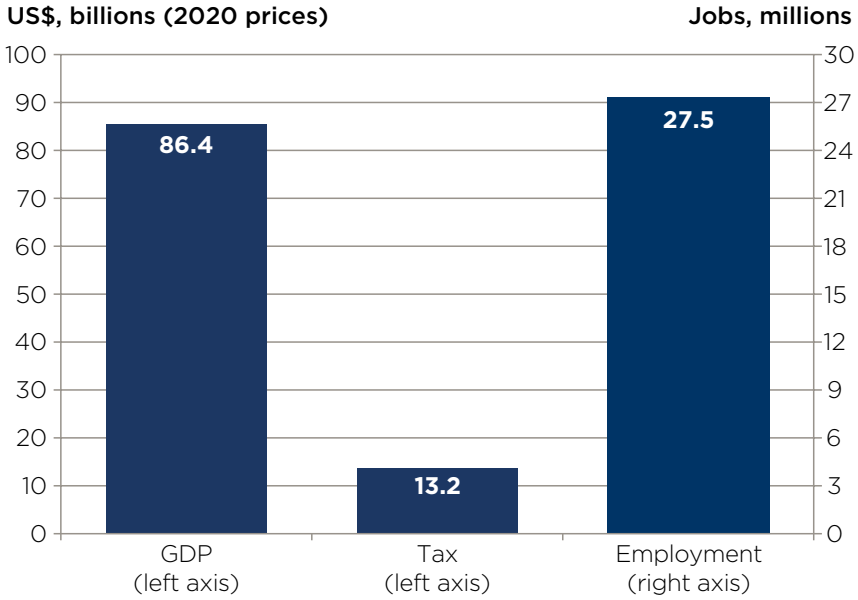
US$86 bn

The agri-food sector's total contribution to 2019 GDP in Vietnam (in 2020 prices).

THE AGRI-FOOD SECTOR'S ECONOMIC IMPACT

Vietnam's agri-food sector was responsible for making a contribution to GDP worth USD 86 billion in 2019, equivalent to one quarter of the domestic economy (in 2020 prices). A total of 27.5 million people were employed in this economic footprint, representing more than half of all jobs in the country. In addition to this, the agri-food sector generated USD 13.2 billion in tax revenues. It was 12% larger in 2019 than in 2015, in real terms, with the fastest growth in the sector's Food and Beverage (F&B) distribution component.

Fig. 1: Total economic contribution of agri-food sector in Vietnam (2019)



Source: Oxford Economics

28 million

Total number of jobs supported by the agri-food sector in Vietnam in 2019.

Agricultural production accounts for the majority of the value that the Vietnamese agri-food sector generates, representing 63% of its contribution to GDP in 2019. This total economic footprint, including its direct, supply chain and consumer spending, was worth USD 55.3 billion that year, with USD 35.5 billion coming directly from agricultural producers. We estimate that the agriculture sector employed a total of 20.4 million people in 2019, three quarters of the employment of the whole agri-food sector.

F&B manufacturing contributed USD 16.6 billion to Vietnamese GDP in 2019. This represented 19% of the economic footprint of the whole agri-food sector, with USD 7.0 billion coming through the direct activities of F&B manufacturers. We estimate that this component of the agri-food sector sustained a total of 2.8 million jobs in 2019.

The final component of the Vietnamese agri-food sector is F&B distribution, which contributed USD 14.5 billion to GDP in 2019. This represents 17% of the whole agri-food sector and was responsible for employing a total of 4.2 million people. This includes catering activities, responsible for contributing USD 6.4 billion to GDP, and F&B retail which contributed USD 5.6 billion.

Vietnam is a significant net-exporter of F&B products. In 2019, it sold exports worth USD 25.5 billion, compared to only USD 15.8 billion of imports, equating to net surplus of USD 9.7 billion. The largest portion of this surplus comes in the form of processed F&B products, worth USD 5.7 billion, with the remaining 4.0 billion from agricultural products. A large trade surplus has been a consistent feature of the Vietnamese agri-food sector for multiple decades.

“ The Vietnamese economy weathered the covid-19 pandemic well in 2020, with growth in both the agri-food sector and the economy as a whole. ”

The Vietnamese economy weathered the COVID-19 pandemic well in 2020, with growth in both the agri-food sector and the economy as a whole. The agri-food sector specifically is estimated to have grown by USD 3.7 billion, a 4% increase in real terms. The largest contributor to this growth was agricultural production and the activities associated with it. This grew by USD 3.9 billion in 2020, compared to a year earlier. However, there was contraction in the catering sector, in which social distancing measures and the collapse of tourism saw the sector’s GDP contribution fall by USD 1.0 billion. Furthermore, employment in the agri-food sector is estimated to have fallen by 90,000 in that time period, due to a contraction in the catering industry and a notable increase in labour productivity in the agricultural sector.

OUTLOOK FOR THE AGRI-FOOD SECTOR

The Vietnamese agri-food sector does not rank as one of the region’s most vulnerable, in our economic recovery matrix. Having contained the virus relatively early and minimised the economic fallout, its prospects compare relatively well across the region, post-COVID. We expect strong food spending and production in 2021 and little exchange rate volatility, so the macroeconomic conditions for growth are relatively strong. However, Vietnam’s poor credit rating, makes government borrowing more costly, which may lead to higher fiscal risks. Furthermore, Vietnam’s relatively high food price inflation, might have a negative impact on demand for F&B products.

Beyond the immediate difficulties created by the pandemic, the agri-food sector in Southeast Asia faces longer-term challenges. Growing populations and incomes mean consumers are demanding more and better-quality food. New technologies and skills will be required to raise the productivity of land and labour. Achieving this will require a supportive policy environment, as well as large-scale investments.

IMPACT OF FISCAL MEASURES ON THE AGRI-FOOD SECTOR'S RECOVERY

Despite the uncertain economic conditions that the region faces, many governments in Southeast Asia are facing pressure to tackle fiscal deficits that have worsened during the coronavirus pandemic. Our Fiscal Risk Assessment Framework, designed in a separate study for FIA in 2020,1 assesses the exposure of the agri-food sector to potential post-pandemic fiscal adjustments in a group of Asian economies.

Vietnam's relatively strong economic performance through 2020 meant that its fiscal deficit grew by less than that of other countries in the region. However, there will be pressure to raise finances and Vietnam's relatively low prevailing sales tax rate means that could be a policy target. A rise in the sales tax applying to food would affect demand in the agri-food sector. The high share of total household spending apportioned to food means this would significantly affect household wellbeing.

POORLY CRAFTED EXCISE TAXES COULD HARM THE AGRI-FOOD SECTOR'S RECOVERY

Excise taxes on sugar, salt, and plastics have long been discussed in policy circles in Southeast Asia as potential tools to address health and environmental problems. Policymakers might argue that the motivations behind these policy initiatives are timely, in the context of the post-COVID recovery. However, our analysis points to many examples of excise duties creating counterproductive results, including a disproportionate impact on small businesses, unforeseen damage to local industry, an unfair burden on low-income households, and a failure to generate fiscal revenues. If excise duties are to be deployed, they should be well designed, evidence-based, efficiently regulated and well communicated with industry to raise the chances of success and minimise the potential costs to the valuable agri-food sector.

[1] "Fiscal risks for the food sector in Asia after COVID-19", Oxford Economics, Food Industry Asia, August 2020

THE AGRI-FOOD SECTOR IN VIETNAM

TOTAL ECONOMIC IMPACT

Agricultural production · F&B manufacturing · F&B distribution

A total contribution to GDP worth $86.4 billion

$55.3bn $16.6bn $14.5bn

Agriculture accounts for nearly **two thirds** of the sector's contribution to GDP.

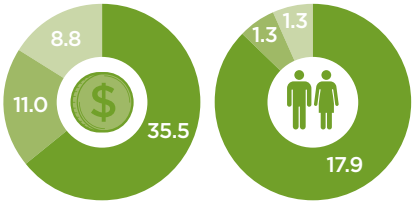
A total employment footprint of 27.5 million

20.5 mn 2.8 mn 4.2 mn

Vietnam's agri-food sector **employs half of the country's workforce.**

FROM FARM TO FORK

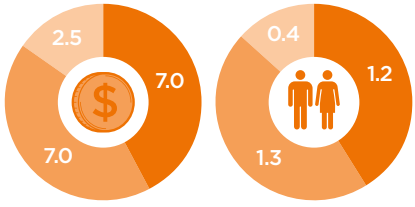
AGRICULTURAL PRODUCTION



$55.3 billion 20.5 million

Direct · Indirect · Induced

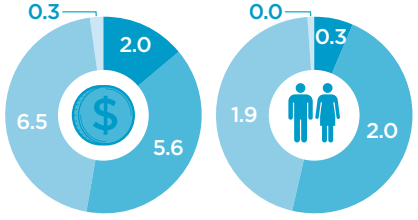
FOOD & BEVERAGE MANUFACTURING



$16.6 billion 2.8 million

Direct · Indirect · Induced

FOOD & BEVERAGE DISTRIBUTION



$14.5 billion 4.2 million

Wholesale · Retail · Catering · Accommodation

TRADE SURPLUS

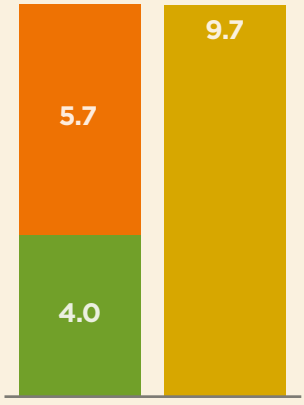
Vietnam boasts a major trade surplus in agricultural and processed food products.

Agricultural products

Processed F&B products

Total

Net exports in 2019 (US$, billion)



COVID-19 IMPACT

Despite the pandemic, the agri-food sector's contribution to GDP grew in 2020.

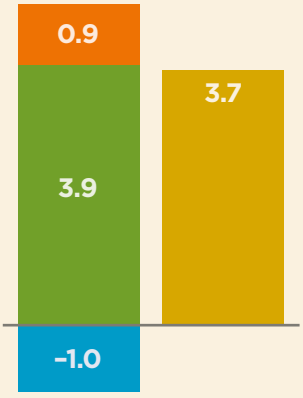
Agricultural production

F&B manufacturing

F&B distribution

Total

Change in GDP contribution (US$, billion)



Totals may not sum due to rounding. $ = US dollar.

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1. INTRODUCTION

1.1 THE STRUCTURE OF THIS REPORT

The report is structured in four parts. This chapter explains our overarching approach to measuring the economic impact of the agri-food sector and presents high-level results. This is followed by a more detailed assessment of the sector's economic impact and the implications of the coronavirus pandemic for its performance in 2020. In the following chapter, we provide our assessment of the outlook for the agri-food sector, beyond the initial impact of the coronavirus. And finally, we assess the fiscal risks facing the sector in 2021 and beyond, including the potential risks posed by excise duties for the businesses, employees, and consumers that depend on the agri-food sector.

1.2 HOW WE FRAME OUR ANALYSIS

A country's food value chain constitutes a complex network of stakeholders involved in growing, processing, selling, and distributing the food and beverages that households rely on. This value chain also makes a major contribution to the economy. In this chapter, we describe the framework we have used to assess the size of the agri-food industry's total economic impact, from farm to fork.

We define the agri-food sector to encompass three components: agricultural production, Food and Beverage (F&B) manufacturing, and F&B distribution, which are explored in more detail below.

The bedrock of our analysis is an assessment of the **direct economic impact** the agri-food sector has on the economy. Our framework also captures the economic activity associated with the agri-food sector's supply chain spending, which we refer to as its **indirect economic impact**. In addition, we estimate the economic activity that results from the consumer spending undertaken by those earning wages in the sector or in its supply chain. This is referred to as its **induced economic impact**. More detail on these three channels of impact and how they are estimated is provided in Box 1.

In our analysis, we assess the structure of the agri-food sector based on 2019 data, which is the latest year for which official statistics are complete. This gives us an important reference point prior to the impact of the coronavirus pandemic. In addition, we assess the evolution of the sector's economic footprint between 2015 and 2019, and also estimate the value of the agri-food sector in 2020. Our 2020 projection utilises the most recent official data from local national statistics agencies, combined with Oxford Economics forecasts.

Component 1: Agricultural production

Agricultural production, which encompasses agriculture and fishing industries, accounts for a substantial proportion of the Gross Domestic Product (GDP)[2] in Southeast Asia. Agricultural production is dominated by rice, which accounts for a greater share of gross production value than any other single commodity. Other commodities such as maize, coffee, cocoa, fruits, and vegetables are also highly important to the region's agricultural output, as are livestock and poultry farming. In addition, many Southeast Asian countries have large fishing industries, especially those with large coastal or island-based populations.

As a major employer across Southeast Asia, agricultural production creates a large induced spending impact. Although average wages in the sector are low, the proportion of household earnings that are spent on local goods and services is high and the sheer number of workers creates a very large spending footprint.

[2] GDP is the standard indicator of an economy's size and represents the total monetary value of all final goods and services produced within an economy, in a specific time period.

Component 2: Food and beverage manufacturing
In this study, we focus our analysis on non-alcoholic food and beverage manufacturing taking place within our four countries of analysis. As these workers and all those employed in the sector's supply chain go on to spend their earnings, the economic activity this stimulates is captured in our estimate of the induced economic impact.

Component 3: Food and beverage distribution

To capture the full spectrum of the food value chain, from farm to fork, we also extend our analysis to downstream industries that distribute food and non-alcoholic beverage products to consumers. In our analysis, we include the wholesale and retail of food and non-alcoholic beverage products, as well as their sale within the hospitality sector, specifically accommodation and catering.

BOX 1: OUR APPROACH TO ECONOMIC IMPACT ASSESSMENT

In this report, we use a bespoke economic impact modelling framework to analyse the economic contribution the agri-food sector makes to the economy. Our assessment encompasses three channels of impact.

Firstly, we assess **the direct economic impact** of the businesses and workers directly involved in the agri-food sector itself—that includes agricultural production, F&B manufacturing, and F&B distribution,

For the agricultural production and F&B manufacturing components, we also capture two further 'channels of impact', as summarised in Fig. 2.

- **The indirect economic impact** refers to the economic activity stimulated along the agri-food sector's non-food supply chain, from procurement spending.
- **The induced economic impact** refers to the economic activity that flows from the payment of wages in the agri-food sector and the businesses in its non-food supply chain. Those wages are spent in the local economy, for example in retail and leisure outlets, generating profits and wages for other businesses, who in turn stimulate further spending in their own supply chains and amongst their own employees.

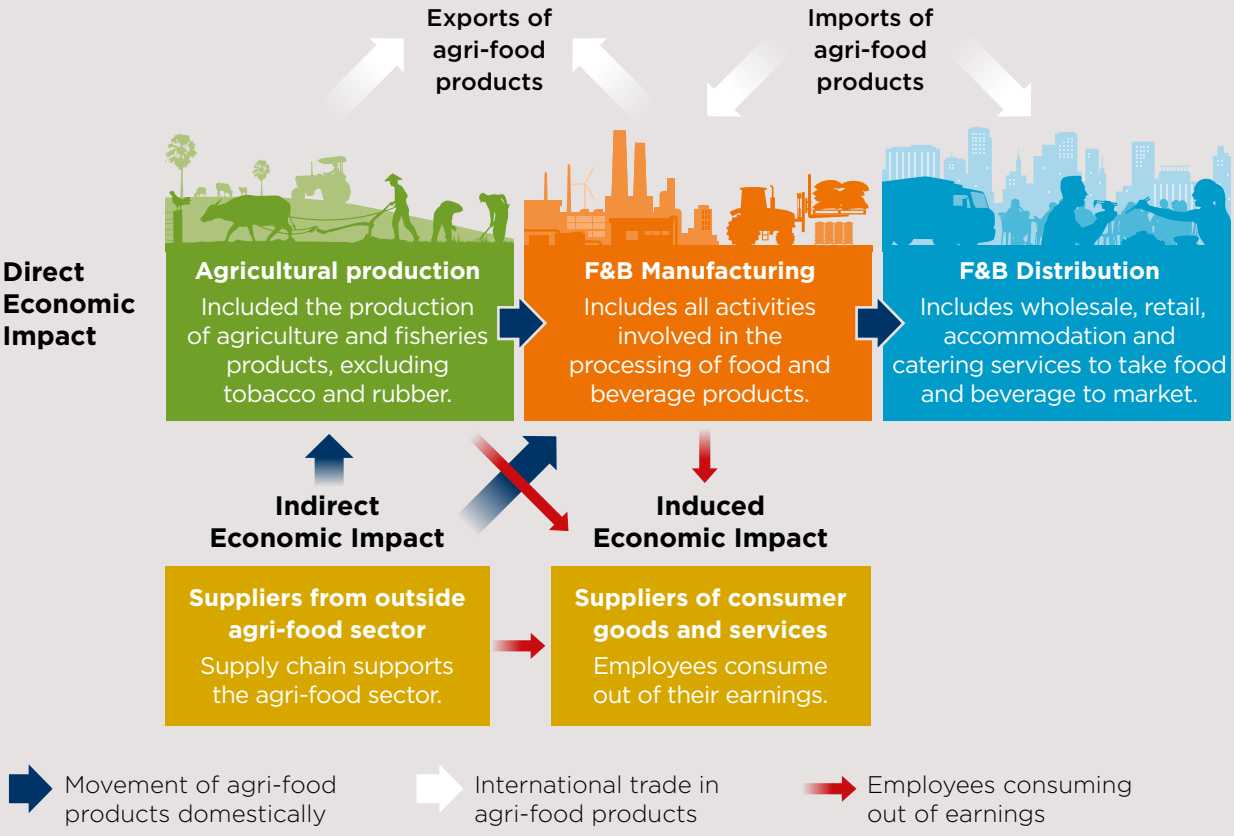
The total economic impact of the agri-food sector encompasses all of these impacts and we present the impact in three ways:

- **Gross value added (GVA) contribution to Gross Domestic Product (GDP).** This is the value of the output produced by a firm minus its expenditure on inputs (goods and services) that are used up in production. Aggregated across all economic operators in the economy, this forms GDP (plus production taxes and subsidies), which is the most widely recognised measure of total economic output.
- **Employment.** This is measured on a headcount basis to facilitate comparisons with national statistical agencies' employment data. It therefore includes anyone who is paid wages regardless of the length of their working week or whether they work all year round. Those who are paid as part of a contract for the provision of services will be considered as part of the supply chain, for the purposes of this study.
- **Tax receipts.** This is an estimate of all income and corporation tax revenues generated by firms and employees that form part of the economic footprint.

Our results are presented on a gross basis. They therefore ignore any displacement of activity from other uses of the land, for example. They do not consider what those resources currently used by the agri-food sector, or by their suppliers, could produce in the absence of the sector's activity.

A full methodology is available in the full Southeast Asia report produced in this study.

Fig. 2. The contribution the agri-food sector makes to the Southeast Asian economy



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2. THE AGRI-FOOD SECTOR'S IMPACT IN VIETNAM

The agri-food sector plays a major role in the Vietnamese economy, making a large contribution to national GDP and supporting half of all of the country's jobs in 2020. The most notable component of this is agricultural production, which makes up nearly two thirds of the agri-food sector's contribution to GDP. But the sector is also growing rapidly throughout the agri-food value chain.

In recent years, Vietnam has been amongst the world's fastest growing economies, with annual growth in GDP of 7% per year, in real terms, between 2015 and 2019. The country's efficient and effective handling of the COVID-19 pandemic, means GDP is also estimated to have grown by more than 2% in real terms in 2020, whilst many other economies in the region contracted.

The agri-food sector holds a vital role in Vietnamese life and represents a key pillar in the Vietnamese economy. The agri-food sector has grown robustly, with its contribution to GDP increasing by 12% from 2015 to 2019 and forecast to increase by 4% in 2020. The sector is also rapidly evolving, due to growth in labour productivity. As a consequence, this growth in output is being achieved with fewer workers. The agri-food sector's total employment footprint is estimated to have contracted since 2015.

All values are quoted in USD, adjusted to keep exchange rates and prices constant at 2020 levels. This ensures comparability across years and the different markets studied in this analysis.

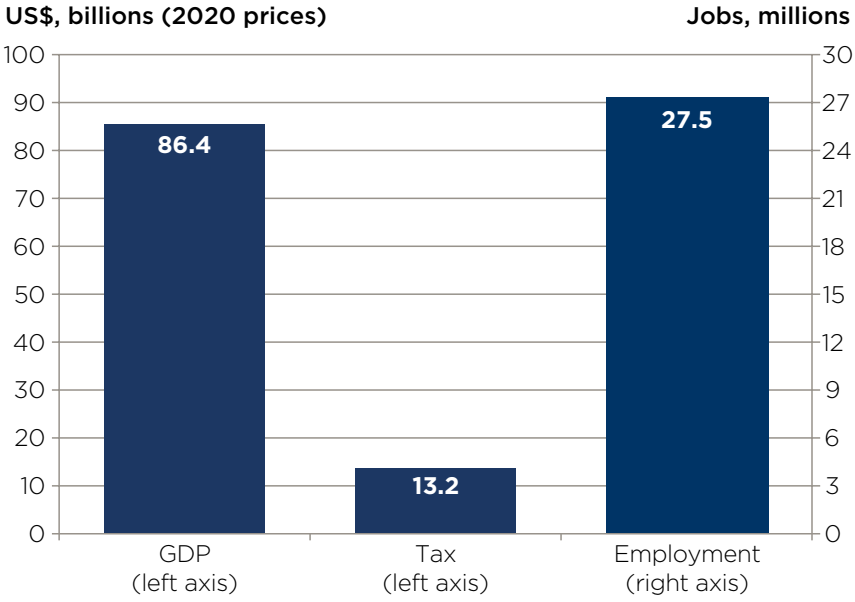
2.1 THE TOTAL ECONOMIC FOOTPRINT OF THE VIETNAMESE AGRI-FOOD SECTOR

In 2019, the Vietnamese agri-food sector made a contribution to GDP worth USD 86.4 billion, in 2020 prices. This represents 26% of the whole Vietnamese economy.

The sector was responsible for employing a total of 27.5 million people in 2019, which represents slightly more than 50% of the whole population. Its contribution to employment is the largest share of the four Southeast Asian countries in this study.

In addition, we estimate that this sector contributed USD 13.2 billion in tax revenues.

Fig. 3: Total economic contribution of agri-food sector in Vietnam (2019)



Source: Oxford Economics

2.2 THE ECONOMIC IMPACT OF THE AGRI-FOOD SECTOR IN DETAIL

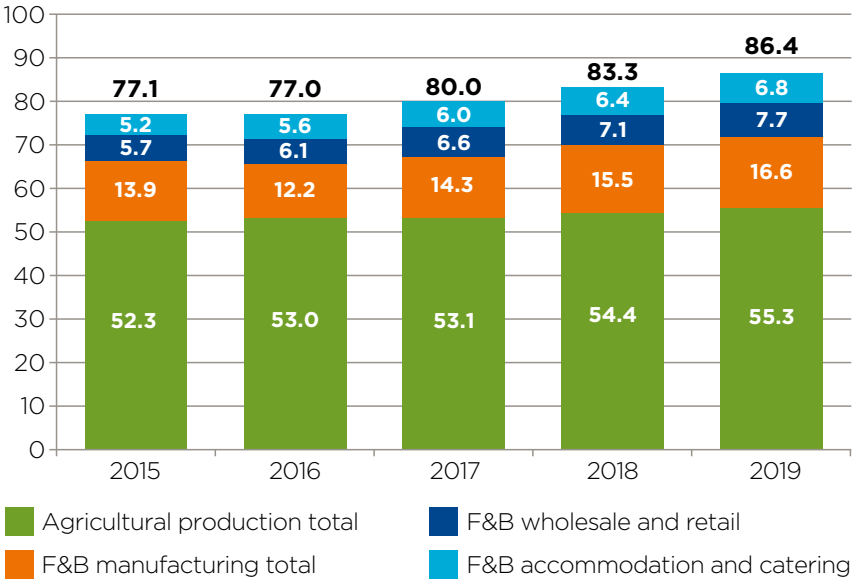
Our assessment of the agri-food sector combines agricultural production, food and beverage manufacturing, and food and beverage distribution. Our detailed analysis reveals that agricultural production accounted for nearly two-thirds of the total agri-food sector's contribution to GDP in 2019. However, food manufacturing is also a significant and growing component of the wider agri-food sector.

The economic contribution of the Vietnamese agri-food sector grew between 2015 and 2019, with the sector's total contribution to GDP USD 9.3 billion larger in 2019 than 2015 in real terms, a 12% increase. Over this period, all components of the sector have grown strongly, but most quickly in F&B manufacturing and distribution, demonstrating the diversification and development of the wider value chain.

In recent years, in lock-step with the wider Vietnamese economy, the agri-food sector has enjoyed significant productivity growth. This phenomenon is also a reflection of the evolution of the sector, away from the most labour intensive industries in agricultural production and towards higher value adding roles in manufacturing and services. As a consequence, employment in the agri-food sector has contracted. As of 2019, 4.3 million fewer people were employed in the sector; a 14% decrease from 2015 levels.

Fig. 4: Change in GDP contribution of Vietnamese agri-food sector, by component (2015-2019)

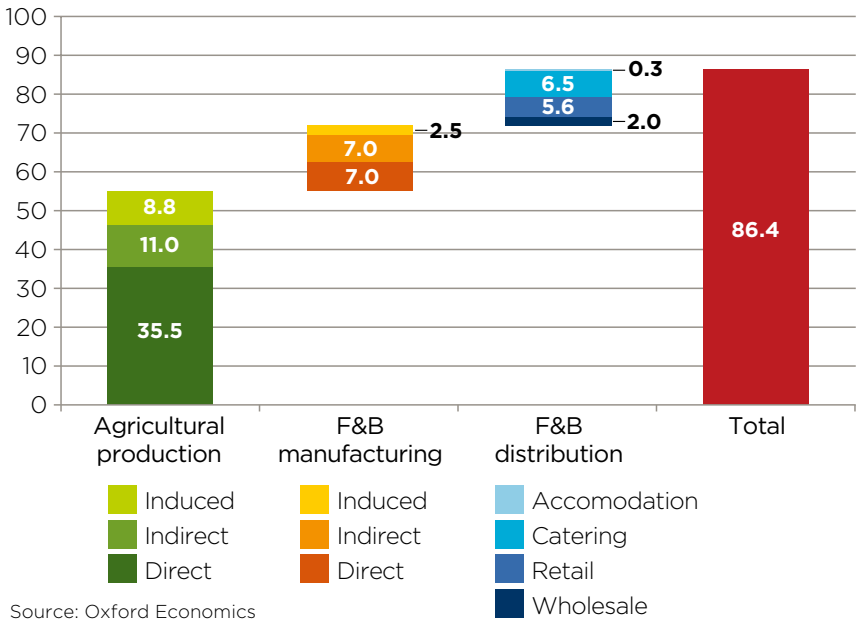
US$, billions (2020 prices)



Source: Oxford Economics

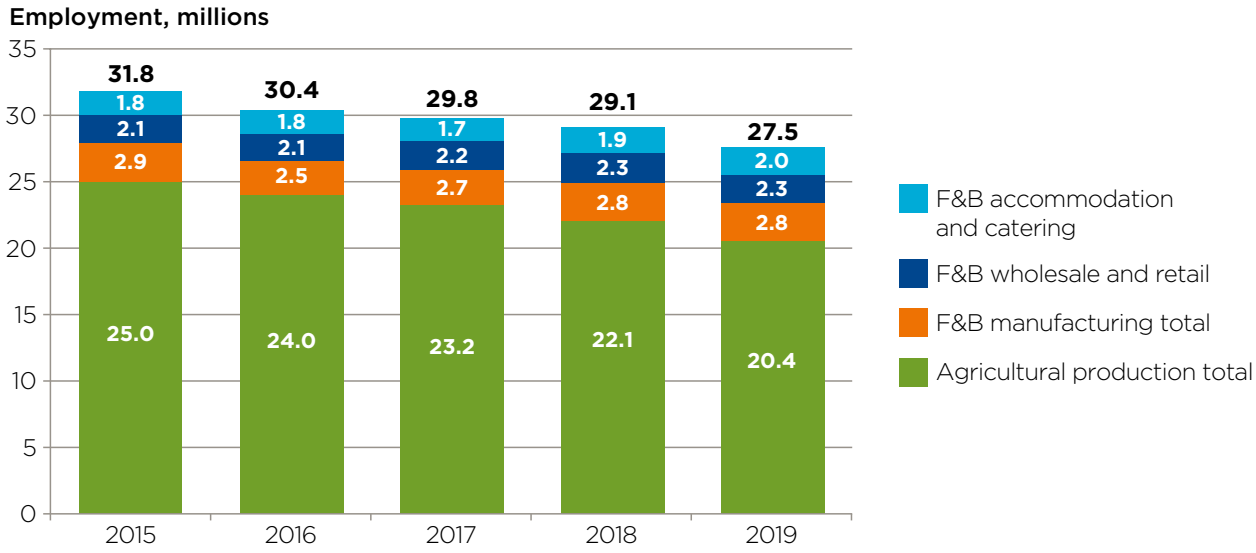
Fig. 5: Agri-food industry contribution to Vietnamese GDP, by component, 2019

US$, billions (2020 prices)



Source: Oxford Economics

Fig. 6: Change in employment footprint of Vietnamese agri-food sector, by component (2015-2019)



Source: Oxford Economics

2.2.1 Agricultural production

Vietnam has a large and valuable agriculture industry, accounting for almost two thirds of the agri-food sector's economic footprint. This is a significantly larger share than any of the other three countries in our Southeast Asia study. In 2019, the agricultural and fisheries industries were responsible for a total economic footprint worth USD 55.3 billion (in 2020 prices). Of this, USD 35.5 billion came through its direct activities.

In delivering this economic impact, the sector sustained a total of 20.45 million jobs in 2019, which is nearly three quarters of the agri-food sector total. Around 17.85 million of these were accounted for directly in agricultural production.

This component of the agri-food sector has been growing steadily, contributing USD 3.0 billion more to GDP in 2019, compared to 2015 — a 6% increase. Rapid productivity growth has meant that despite the growth in output, the employment footprint has shrunk by 4.57 million in that period — an 18% decrease.

2.2.2 Food and beverage manufacturing

The production of food and non-alcoholic beverage products contributed an estimated USD 16.6 billion to Vietnamese GDP in 2019 (in 2020 prices). Of this total, USD 7.0 billion came from the direct activities of food manufacturers, with the remainder accounted for by its supply chain and induced consumer spending impacts.

This component of the agri-food sector was responsible for employing a total of 2.83 million people, of whom 1.17 million were employed directly.

Vietnamese agri-food manufacturing grew robustly between 2015 and 2019, with its contribution to GDP rising by USD 2.7 billion, a 19% increase. Productivity improvements meant that employment is estimated to have contracted by a total of 100,000 jobs over that period.

2.2.3 Food and beverage distribution

The distribution of food and beverage products is an increasingly important component of the Vietnamese agri-food sector. In 2019, F&B distribution contributed a total of USD 14.5 billion to Vietnamese GDP, sustaining 4.22 million jobs. Within the agri-food distribution industry, wholesale and retail were collectively responsible for a contribution worth USD 7.7 billion and 2.27 million jobs.

A further USD 6.8 billion contribution was accounted for by the hospitality industry, which sustained 1.95 million jobs, the majority of which was attributable to catering activities (USD 6.5 billion and 1.91 million jobs).

Food and beverage distribution was the fastest growing component of the agri-food sector in Vietnam from 2015 to 2019, benefitting from rapidly growing domestic demand. This reflects the strength of the Vietnamese economy and the growing demand created by consumers. Consumer spending growth has outpaced GDP growth every year since 2015.

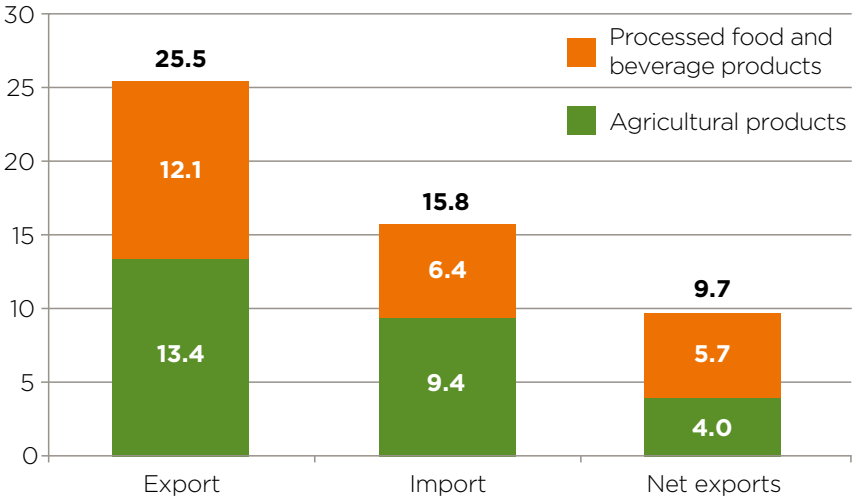
The contribution of food and beverage distribution to GDP rose by USD 3.6 billion between 2015 and 2019, a 33% increase, with an additional 360,000 people employed. Within the distribution sector, the GDP contribution of wholesale and retail collectively grew by 34%, whilst that of hospitality grew by 32%

2.3 TRADE IN AGRI-FOOD PRODUCTS

Vietnam is a net exporter of agri-food products, with exports in 2019 worth USD 25.5 billion compared to USD 15.8 billion of imports. This leaves it with a positive trade balance worth USD 9.7 billion (all values in 2020 USD). The trade surplus is manifested in both agricultural products and processed food and beverage products, with net surpluses worth USD 4.0 billion and USD 5.7 billion respectively.

Fig. 7: Trade in agri-food products, 2019

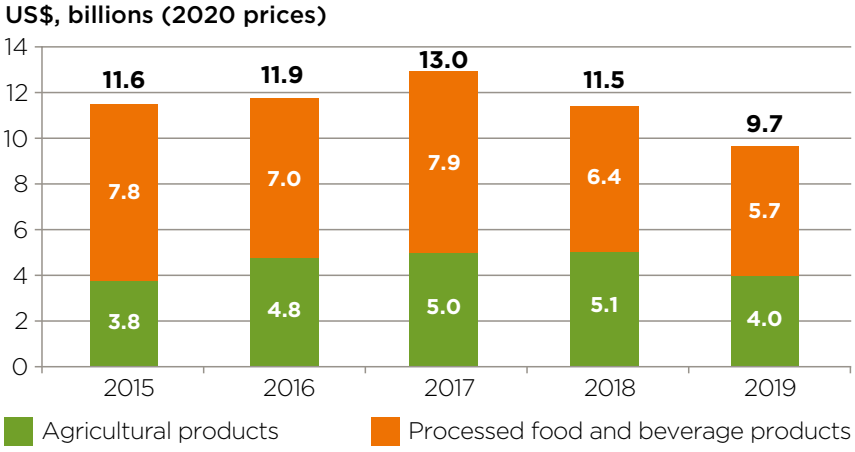
US$, billions (2020 prices)



Source: Oxford Economics

Vietnam's trade surplus has been a consistent feature between 2015 and 2019 (Fig. 8). However, it has fluctuated from a peak of USD 13.0 billion in 2017 to a five year low of USD 9.7 billion in 2019. This decrease was driven by relatively strong growth in domestic demand for food and beverage products. The rapid growth in agri-food distribution suggests more domestic products are being retained for the domestic market, and more foreign products imported.

Fig. 8: Net exports of primary and processed food and non-alcoholic beverages, Vietnam, 2015 to 2019



Source: Oxford Economics

2.4 IMPACT OF COVID-19 ON THE VIETNAMESE AGRI-FOOD SECTOR

The Vietnamese economy is estimated to have grown in 2020, despite the COVID-19 pandemic. Based on preliminary national accounts data and Oxford Economics' own estimates, we forecast that the agri-food sector's contribution to GDP will be USD 3.7 billion bigger in 2020 than 2019, in real terms, a 4% increase. However, the rapid growth in productivity that the sector has seen in recent years is expected to have continued, resulting in a small contraction in employment of 90,000.

Fig. 9: Year-on-year change in GDP and employment contribution of agri-food sector in Vietnam, by component, 2020.

Source: Oxford Economics

2.4.1 Agricultural production

The Vietnamese agricultural sector is estimated to have grown robustly in 2020. Initial data indicates that its contribution to GDP increased by 7%. Once its indirect and induced contributions are added, we estimate the economic footprint of agricultural production will have grown USD 3.9 billion larger in 2020, compared to previous years. An estimated USD 2.5 billion of this growth occurred via the direct contribution.

We project employment growth of 370,000 in 2020 across the total economic footprint of agricultural production, compared to the year before, despite continued productivity gains.

2.4.2 Food and non-alcoholic beverage manufacturing

Food and beverage manufacturing is also forecast to have grown in 2020, mirroring the growth that is expected to be seen in the broader manufacturing sector and wider Vietnamese economy in 2020. We estimate that food manufacturing expanded 5% that year, contributing an additional USD 0.9 billion to GDP. This component of the agri-food sector is estimated to have employed an additional 10,000 people in 2020, compared to the year before.

2.4.3 Food and non-alcoholic beverage distribution

In contrast to agricultural production and F&B manufacturing, we estimate the economic impact of F&B distribution to have shrunk in 2020. Delving into the detail, the economic impact of the wholesale and retail of F&B products is estimated to have grown by around 2% that year, but the hospitality industry suffered significant losses due to physical distancing measures and the drop in tourism. We estimate that the accommodation and catering aspects of F&B distribution contracted by 38% and 16%, respectively, in 2020.

Overall, the GDP contribution of F&B distribution is estimated to have contracted by USD 1.0 billion in 2020, with 470,000 fewer people employed.

3. OUTLOOK FOR THE AGRI-FOOD SECTOR

3.1 MIXED OUTLOOK FOR THE AGRI-FOOD SECTOR IN SOUTHEAST ASIA

With such an enormous and pivotal contribution to wider economic activity in Southeast Asia, the fortunes of the agri-food sector are intertwined with those of the wider economy. Beyond the initial impact of the coronavirus outbreak, the sector faces highly challenging conditions, which will have implications for employment, tax revenues, and wider economic performance.

Whilst the food supply chain remained relatively robust during 2020, new and unforeseen variants of the coronavirus could have different impacts on logistics and prices in the months ahead. The sector is also braced for an inevitable crunch on food and beverage demand in 2021. The pandemic will leave a legacy of unemployment, underemployment, and reduced household incomes, which will depress consumer spending across Southeast Asia.

Oxford Economics forecasts an annual reduction in total household food spending of 0.8% in Southeast Asia in 2021, in real terms. Furthermore, tourism traditionally accounts for large portion of total food consumption, and this will take longer to recover. Our latest projections suggest Asia will not see a return to 2019 levels of inbound tourism until 2024.

Southeast Asia's agri-food sector also faces longer-term challenges. As incomes have risen and populations have grown, Southeast Asian consumers are demanding more and better-quality food. There is an urgent need for land and labour productivity improvements, which requires technological innovation and skills development, as well as a sound and supportive policy environment. This includes the need for investment in new technologies to improve the resilience, efficiency, and environmental sustainability of the region's labour-intensive food value chain.

3.2 THE ECONOMIC RECOVERY MATRIX

In a 2020 study in collaboration with FIA, Oxford Economics developed an Economic Recovery Matrix for Asia's agri-food sector to better understand the risks it faces.[3] The matrix identifies demand-side risks, relating to household spending, travel and tourism, and potential forthcoming fiscal measures, which are expanded upon further in the next chapter. It also identifies supply-side forces that will influence recovery, relating to potential food trade barriers, price inflation, exchange rate volatility, and further potential fiscal measures. Each country is given a score for each risk factor (1-10, with 1 notifying the greatest risk), based on hard data and expert judgement. The overall recovery rating is a simple average of each country's rankings across these risk factors.

Vietnam achieves a high rank in our economic recovery matrix, after having contained the virus relatively early and minimised the economic fallout. Macroeconomic conditions suggest that the sector should enjoy strong growth in 2021, supported by low exchange rate volatility and robust household spending growth.

Furthermore, we judge the risk of food-specific taxes and VAT increases to be lower than in other Southeast Asian countries. However, some pockets of vulnerability remain for the sector. Vietnam's poor credit rating means that it might find itself under greater pressure to adopt broad-based austerity measures in the years ahead, which would constrain demand. In addition, Vietnam experienced higher food price inflation in 2020 than other countries in this study, potentially putting downward pressure on demand if it were to continue.

[3] "Leading to recovery: Asia's food industry in the post-COVID era" Oxford Economics, Food Industry Asia, October 2020

Fig. 10. Economic recovery matrix for the agri-food sector[4]

Recovery Factor ranking (1=worst placed, 10=best placed)		Country									
		VNM	THA	PHL	IDN	SGP	CHN	JPN	KOR	IND	MYS
Demand Side Factors	Household food spending growth, 2019-2020	8	6	7	4	10	3	1	2	5	9
	Risks of food-specific taxes and VAT hike	7	2	4	6	10	7	9	3	4	1
	Risk to recovery of austerity measures	2	4	2	1	5	8	5	10	9	7
	Travel and Tourism as % GDP, 2019	6	2	1	9	5	4	7	10	8	3
Supply Side Factors	Policy restrictions to food trade in 2020	9	9	9	8	10	8	10	10	1	9
	Change in food price inflation through 2020	5	7	6	No data	2	9	3	1	8	4
	Historical exchange rate volatiilty	10	4	7	1	5	9	8	6	2	3
	Size of agri subsidies and importance to food sector	6	5	2	1	10	3	7	4	9	8
Overall Recovery Rating 1=worst placed for recovery, 10 = best placed for recovery		6.6	4.9	4.8	4.3	7.1	6.4	6.3	5.8	5.8	5.5

Note: all countries are ranked on a scale of 1-10 on each metric, where 1=most risk on this metric, and 10 is least risky.
"Policy restrictions to trade" is scored judgmentally, depending on the number of new anti-food trade measures introduced in 2020.

[4] Scores reflect January 2021 context.

4. FISCAL POLICY RISKS FOR THE AGRI-FOOD SECTOR

Despite the uncertain economic conditions and the many hardships currently faced by households and industry in the region, governments are under pressure to tackle the fiscal deficits that have widened during the coronavirus pandemic. In this chapter, we explore the potential implications of these post-COVID-19 fiscal adjustments for the agri-food sector.

4.1 ASSESSING THE FISCAL POLICY RISKS TO THE ASIAN AGRI-FOOD SECTOR

To understand the risks to the agri-food sector from fiscal policy, Oxford Economics developed a Fiscal Risk Framework, which was first published in collaboration with FIA in a 2020 study.[5] The framework assesses three aspects:

1. The damage done to government finances during the COVID-19 pandemic,
2. The urgency of repairing fiscal balance sheets, and
3. The exposure of the food sector to the risks arising from this effort.

Using a traffic light system, the framework illustrates the relative vulnerability of the agri-food industry in each economy to potential post-COVID-19 fiscal adjustments. Our assessment combines i) the fiscal damage of COVID-19 measures, ii) the agriculture sector's exposure to government spending or subsidy, iii) the agri-food sector's exposure to potential tax hikes, and iv) the health-related impetus to impose new excise taxes on sugar, salts, and fats. In Fig. 11, we present a Food Industry Fiscal Risk rating, which is the median rank of each country across the range of metrics (1 = least susceptible to risk).

Vietnam is ranked around the middle of our Asian sample in our fiscal risk matrix. It demonstrates relative strengths compared to its neighbours, despite the potential tax risk facing the agri-food sector. Whilst Vietnam's fiscal deficit expanded in 2020, it grew by less than that of other countries in the region, thanks to the country's stronger economic performance that year.

Nevertheless, the government may seek to restore its fiscal balance with revenue raising measures in the near future. In particular, Vietnam's low-prevailing sales tax rate by global standards, increases the prospect of a sales tax hike. This poses a significant risk to demand and the wider economic recovery, due to the high proportion of food spending in the overall household consumption basket. More than a third of household spending in Vietnam is accounted for by food and non-alcoholic beverages, meaning a potential tax increase would negatively impact demand and household wellbeing.

[5] "Fiscal risks for the food sector in Asia after COVID-19", Oxford Economics, Food Industry Asia, August 2020

Fig. 11: Fiscal risk assessment for the food industry[6]

		Country									
		THA	PHL	IDN	VNM	MYS	CHN	IND	JPN	KOR	SGP
COVID-19 Fiscal Impacts	Change in government deficit 2019-2021, pp GDP	-3.4	-3.6	-3.7	-1.6	-1.3	-1.4	-1.4	-6.5	-2.1	-3.7
	Sovereign credit risk, 2020 (1=lowest risk, 10=highest risk)	4.4	4.4	4.6	4.7	4.7	4.2	4.2	4.0	3.1	4.1
Government Expenditure Risk	Domestic agriculture % of input to food manufacturing	46.8	47.0	53.8	46.0	37.3	54.4	66.9	23.1	29.5	0.2
	Government support for agriculture, % GDP	1.0	3.1	3.0	0.9	0.5	1.6	0.2	0.9	1.6	0.0
Government Revenue Risk	VAT/GST rate on food, %, 2020	7	12	10	10	10	13	18	10	10	7
	Food and beverage % of consumer basket, 2020	37.9	40.4	22.1	39.7	29.5	19.9	45.9	27.7	13.8	7.2
Health Factors Risk	% of adults (obese) and children (overweight)	30.4	16.3	24.0	12.6	51.0	30.3	15.7	17.9	37.1	29.7
	% of adults with diabetes, 2019	7.0	7.1	6.3	6.0	16.7	9.2	10.4	5.6	6.9	5.5
Combined	Food Industry Fiscal Risk Rating	6.8	6.5	6.3	4.9	5.9	5.5	5.0	4.1	4.5	3.9

Source: Oxford Economics/Various

*Food Industry Fiscal Risk Rating is calculated as the median rank for country on each identified metric, with 1 denoting the least susceptible country, and 10 denoting the most susceptible.

[6] Scores reflect January 2021 context.

4.2 NEW EXCISE TAXES POSE A RISK TO THE AGRI-FOOD SECTOR'S RECOVERY

Excise taxes on sugar, salt, and plastics have long been discussed in policy circles in Southeast Asia as potential tools to address health and environmental problems. The motivations behind these policy initiatives are timely and highly important. But international evidence has shown that for such measures to succeed, careful design, planning, and communication are essential. There are many examples of excise duties creating counterproductive results, including a disproportionate impact on small businesses, unforeseen damage to local industry, an unfair burden on low-income households, and a failure to generate fiscal revenues.

A good excise tax policy should be well designed, targeted, evidence-based, and efficiently regulated to raise the chances of success. We identify three core ingredients of a successful fiscal policy to meet health and environmental objectives.

1. **Education and public information.** Raising awareness amongst consumers is key to managing behavioural change, and highly complementary to the use of fiscal measures. Accurate food and plastic labelling are a tried and tested public information tool to amplify policy effectiveness.
2. **A comprehensive regulatory scope.** Excise taxes used on their own can be blunt, regressive, and poorly implemented. International evidence suggests the more effective the regulatory conditions, the more effective the tax compliance. Governments can use regulatory standards on aspects such as product reformulation and food labelling to nudge producers in the right direction.
3. **Consultation and communication with industry.** To succeed with fiscal measures, governments must engage and communicate with stakeholders regularly to minimise the cost to business and the loss of jobs, whilst maximising collaboration and compliance. Regular communication with industry stakeholders equips policymakers with sector expertise and enables them to tailor policy effectively to achieve its intended outcomes.

ABOUT OXFORD ECONOMICS

Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on more than 200 countries, 250 industrial sectors, and 7,000 cities and regions. Our best-in-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact.

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ABOUT FOOD INDUSTRY ASIA

Food Industry Asia (FIA) was formed in 2010 to enable major food and beverage manufacturers and B2B ingredients suppliers to speak with one voice on complex issues such as health and nutrition, food safety, sustainability, and regulations and trade. From its base in Singapore, FIA seeks to enhance the industry's role as a trusted partner and collaborator in the development of science-based policy throughout Asia. To do so means acting as a knowledge hub for Asia's national industry associations and affiliated groups, to support with their engagement of public bodies and other stakeholders across the region.

2021

The modelling and results presented here are based on information provided by third parties, upon which Oxford Economics has relied in producing its report and forecasts in good faith. Any subsequent revision or update of those data will affect the assessments and projections shown.

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