

From Countryside to Capital Markets: The S&P/ASX Agribusiness Index

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Introduction

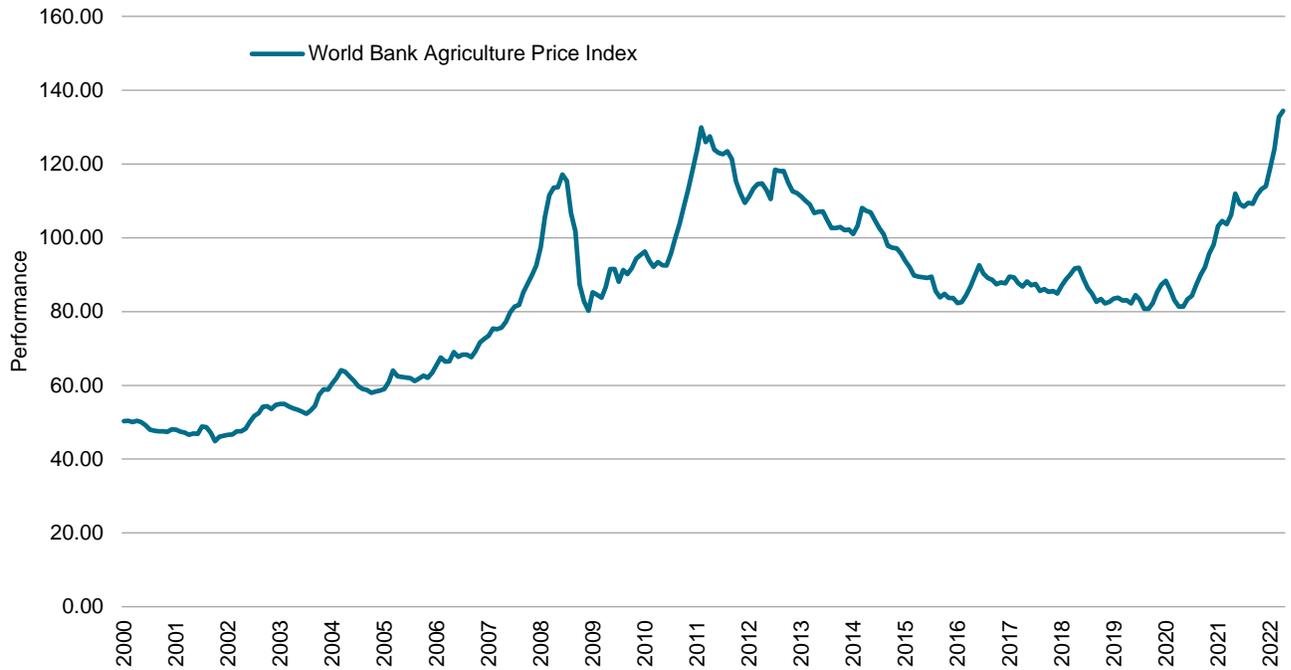
Agriculture is the foundation of our society. It provides food to support human's daily nutrition needs and is the main source of raw materials such as cotton, wood and leather that are critical to major industries in the economy. The United Nations (UN) has set "end hunger, achieve food security and improved nutrition and promote sustainable agriculture" as a global policy in its Sustainable Development Goals.¹ By 2050, the global population is estimated to grow to 9.6 billion, demanding at least a 70% increase in food supply.² While the growing population is driving demand for agricultural products, climate change, geopolitical risk and water scarcity are threatening the global food supply chain. Most recently, the Russia-Ukraine conflict has cast immediate damage to global food supply, causing a food price increase in 2022.³ Since 2020, the World Bank Agriculture Price Index has increased by 52% (see Exhibit 1).

¹ United Nations. Sustainable Development Goal 2. "Goal 2: Zero Hunger." <https://www.un.org/sustainabledevelopment/hunger/>

² United Nations. (Dec. 3, 2013). World must sustainably produce 70 per cent more food by mid-century – UN report. <https://news.un.org/en/story/2013/12/456912#.VUafntNViko>

³ World Bank. (May 24, 2022). Food Security Update. <https://www.worldbank.org/en/topic/agriculture/brief/food-security-update>

Exhibit 1: Food Price Has Increased Dramatically in 2022



Source: World Bank. Data as of May 3, 2022. Chart is provided for illustrative purposes.

Australia is a major producer of many agricultural products, including wheat, wool and beef. Its agribusiness is a vital contributor to the domestic economy, and Australia itself is a key export country in the global market. The diversified climate and soil conditions in Australia can sustain a wide range of agricultural businesses including livestock, crops, fruit and vegetables, fisheries, and forest (see Exhibit 2). More than half of the land and about one-quarter of the water in Australia are used in the agriculture industry.⁴ Of the agricultural production, 70% is exported to other countries, accounting for 12% of Australia’s export earnings in 2020-2021.⁴ In 2020, Australia’s sheep meat export ranked first,⁵ and its beef export ranked second in the world.⁶

⁴ Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). ABARES Insights Issue 1, 2022. https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1033241/0

⁵ Meat & Livestock Australia. (2020). Australia’s Sheep Industry Fast Facts. <https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/trends--analysis/fast-facts--maps/2020/mla-sheep-fast-facts-2020.pdf>

⁶ United States Department of Agriculture Foreign Agricultural Service. (April 8, 2022). Livestock and Poultry: World Markets and Trade. https://apps.fas.usda.gov/psdonline/circulars/livestock_poultry.pdf

Exhibit 2: Agriculture, Fisheries and Forestry Value of Production in Australia, by Commodity (2020-2021)



Source: ABARES: <https://www.awe.gov.au/abares/products/insights/snapshot-of-australian-agriculture-2022#agricultural-production-is-growing>. Data as of Dec. 31, 2021. Chart is provided for illustrative purposes.

Being a cornerstone of a sustainable future economy, agribusiness stands to grow in the coming years. The [S&P/ASX Agribusiness Index](#) seeks to provide a comprehensive gauge of agribusiness in Australia.

Index Construction⁷

The S&P/ASX Agribusiness Index is designed to track the performance of ASX-listed companies that are directly engaged in or benefited from agricultural-related activities. It starts from an eligible universe of the largest 1,000 ASX-listed equity stocks that meet minimum liquidity thresholds. Eligible stocks that are classified under defined Global Industry Classification Standard® (GICS®) sub-industries and contain agribusiness related keywords in their business activity descriptions are selected for inclusion (see Exhibit 3).

Exhibit 3: GICS Subindustries and Keywords for Inclusion in the Index

GICS Sub-Industries	Keywords
<ul style="list-style-type: none"> - Fertilizers & Agricultural Chemicals (15101030) - Paper Products (15105020) - Food Distributors (30101020) - Brewers (30201010) - Distillers & Vintners (30201020) - Agricultural Products (30202010) - Packaged Foods & Meats (30202030) - Pharmaceuticals (35202010) - Water Utilities (55104010) - Diversified REITs (60101010) - Specialized REITs (60101080) 	<ul style="list-style-type: none"> - Agri - Beverage - Brew - Cannabis - Dairy - Farm - Fertilizer - Fish - Grocer - Hemp - Insecticide - Malt - Meat - Milk - Plantation - Potash - Spirit - Wine

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes.

The index is weighted by float-adjusted market capitalization, subject to a 10% single stock cap and is rebalanced semiannually in May and November.

Index Design

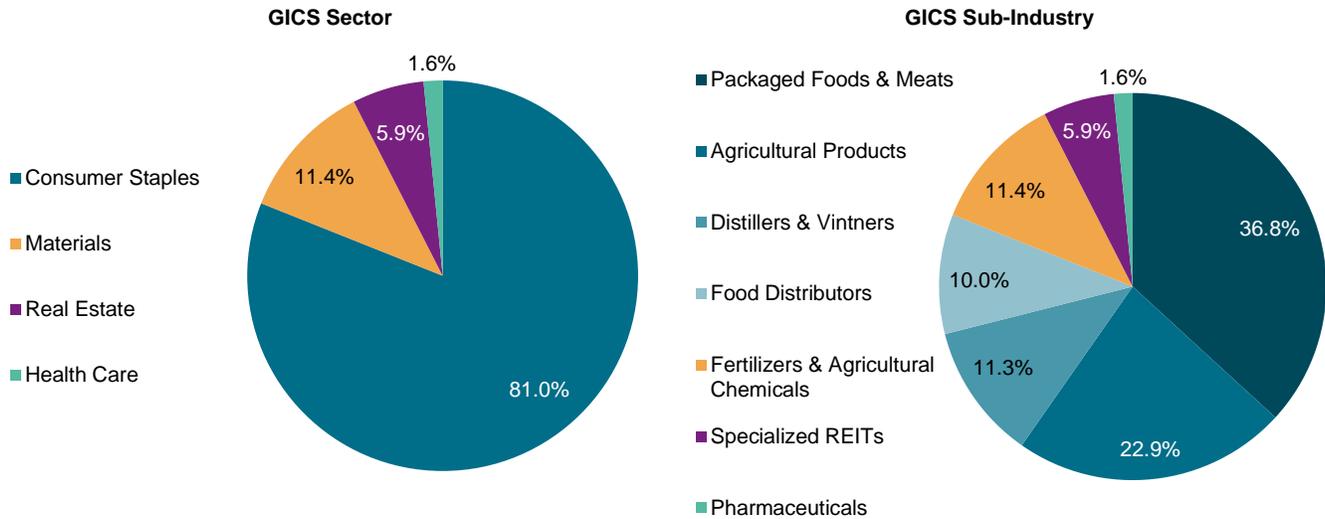
To fully capture various agribusiness activities that are important for Australia, we tailor-made the index construction in three aspects.

First, we expanded the GICS scope beyond Agricultural Products (30202010) to include 10 other GICS subindustries. Agricultural Products can be narrow and only includes 7 companies in the 1,000 largest ASX-listed stocks, with a total market capitalization of AUD 5 billion as of May 20, 2022. The intention is to include a broad coverage along the agribusiness value chain

⁷ For more details on the methodology, please visit <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-asx-australian-indices.pdf>

such as wine makers, pharmaceuticals, food processors and distributors, fertilizer manufacturers, farmland REIT and water suppliers (see Exhibit 4).

Exhibit 4: GICS Breakdown by Sector and Sub-Industry



Source: S&P Dow Jones Indices LLC. Data as of May 20, 2022. Charts are provided for illustrative purposes.

Second, expanding the scope could introduce companies that are not highly relevant to agribusiness, thus we need to fine-tune the eligible universe by selecting companies whose business activities are related to agriculture. The keyword search is an efficient way to filter down the universe. As of May 20, 2022, there were 77 companies with a total market capitalization of AUD 100 billion in the 1,000 largest ASX-listed stocks under the 11 GICS subindustries. After applying the keyword search, 40 companies were left with an AUD 33 billion market capitalization.

Finally, since the index starts from the 1,000 largest ASX-listed stocks, a much broader universe than the S&P/ASX 300, it may include some micro-cap companies with insufficient liquidity. We incorporate a liquidity criterion to improve the capacity of the index. Exhibit 5 shows the top 10 constituents of the index as of May 20, 2022.

Exhibit 5: Top 10 Constituents

No.	Constituent	Weight (%)
1	Treasury Wine Estates	10.0
2	The A2 Milk Company Ltd	10.0
3	Graincorp Ltd A	10.0
4	Elders Ltd	10.0
5	Nufarm Limited	9.5
6	Bega Cheese Ltd	7.4
7	Costa Group Holdings Ltd	7.1
8	Rural Funds Group	5.9
9	United Malt Group Ltd	5.5
10	Inghams Group Ltd	5.3
	Total	80.8

Source: S&P Dow Jones Indices LLC. Data as of May 20, 2022. Table is provided for illustrative purposes.

Key Index Characteristics

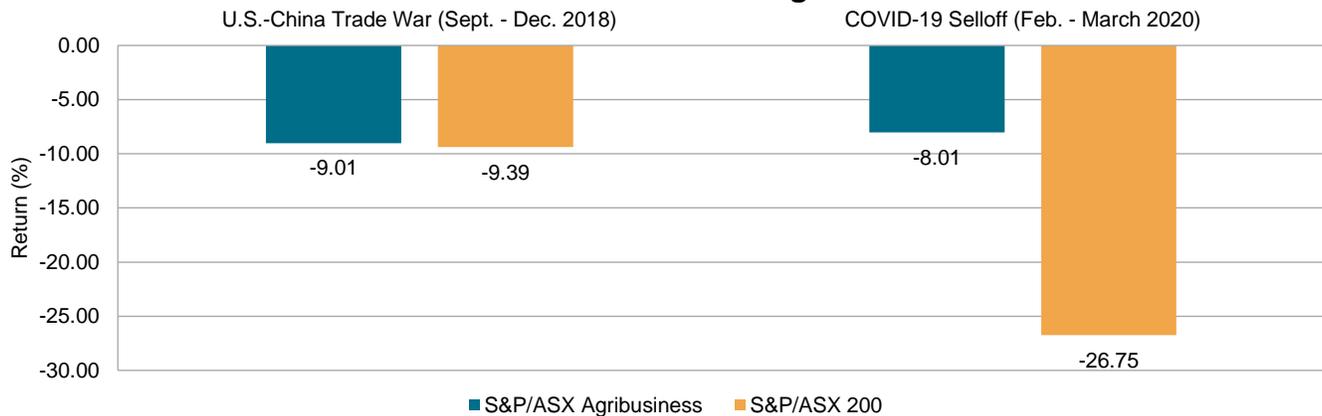
Comprehensive Coverage

By expanding the GICS scope and incorporating a keyword search on ASX-listed companies, the index takes an innovative approach to gauging Australian companies involved in agribusiness.

Downside Protection

Satisfying the fundamental needs of human society, agricultural products are relatively stable in demand. With about 80% of its index weight in Consumer Staples, the index tends to be defensive and resilient in market downturns. During the 2018 market crash and the 2020 COVID-19 selloff, the S&P/ASX Agribusiness Index outperformed the S&P/ASX 200 (see Exhibit 5).

Exhibit 5: Back-Tested Historical Performance during Market Drawdowns

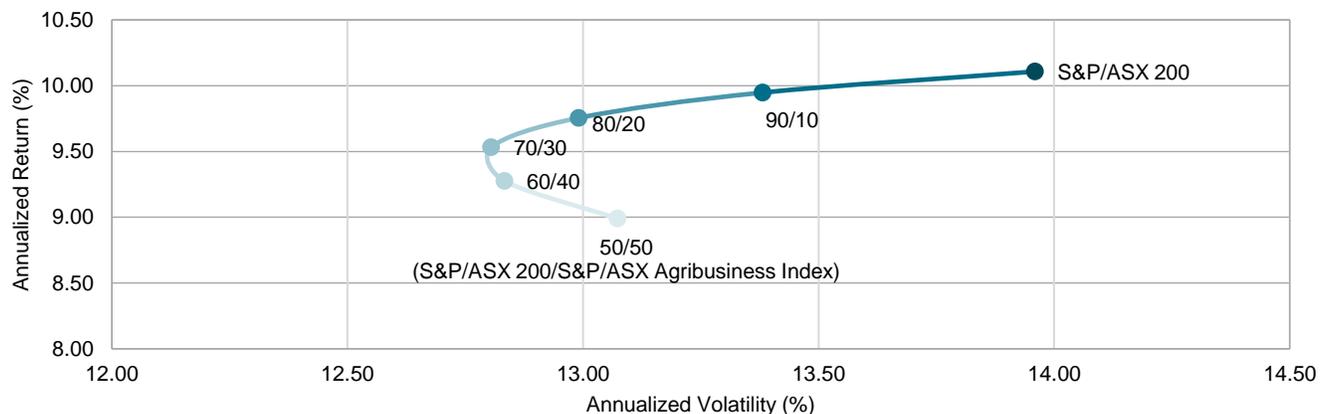


Source: S&P Dow Jones Indices LLC. Data as of April 30, 2022. Index performance based on monthly total return in AUD. Past performance is no guarantee of future results. The S&P/ASX Agribusiness was launched May 30, 2022. All data prior to the index launch date is hypothetical back-tested data. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Diversification

The S&P/ASX 200 is concentrated in the Financials (29.1%) and Materials (24.8%) sectors.⁸ The S&P/ASX Agribusiness Index offers a potential opportunity for diversification. Exhibit 6 shows how the S&P/ASX Agribusiness Index can help to improve the risk/return of a hypothetical portfolio based on the S&P/ASX 200. When shifting allocation to the S&P/ASX Agribusiness Index by 10%, 20% and 30%, the overall portfolio could deliver a higher risk-adjusted return than a 100% allocation to the S&P/ASX 200.

Exhibit 6: Efficient Frontier of S&P/ASX 200 and S&P/ASX Agribusiness Index



Source: S&P Dow Jones Indices LLC. Data from Nov. 30, 2015, to April 30, 2022. Index performance based on monthly total return in AUD. Past performance is no guarantee of future results. The S&P/ASX Agribusiness was launched May 30, 2022. All data prior to the index launch date is hypothetical back-tested data. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

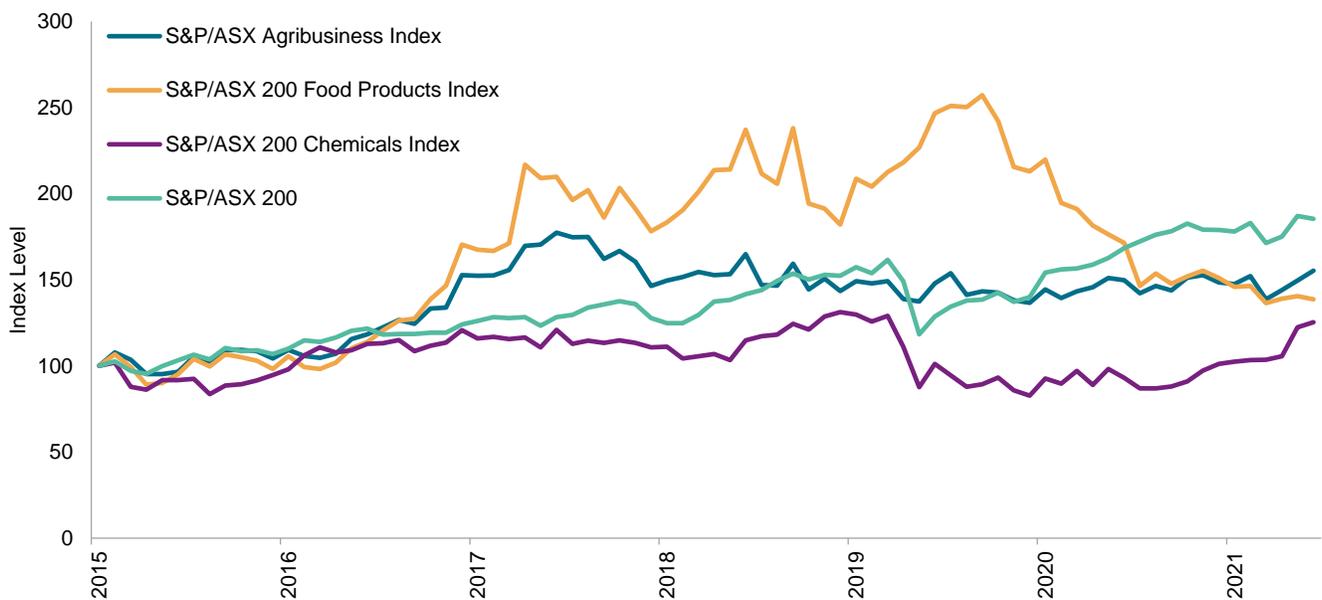
⁸ Data as of April 30, 2022.

Historical Performance

During the six-year back-tested period, the S&P/ASX Agribusiness Index outperformed the S&P/ASX 200 Food Products Index and the S&P/ASX 200 Chemicals Index, which are GICS industry indices that cover 70% of the weight in the S&P/ASX Agribusiness Index as of May 20, 2022. Since 2018, all three indices faced performance headwinds; the S&P/ASX Agribusiness Index was more resilient and demonstrated lower volatility compared with the two GICS industry indices.

Exhibit 7a: Back-Tested Historical Performance

Nov. 30, 2015 = 100



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2022. Index performance based on monthly total return in AUD. Past performance is no guarantee of future results. The S&P/ASX Agribusiness was launched May 30, 2022. All data prior to the index launch date is hypothetical back-tested data. Chart and table are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 7b: Back-Tested Historical Performance

Period	S&P/ASX Agribusiness Index	S&P/ASX 200 Food Products Index	S&P/ASX 200 Chemicals Index	S&P/ASX 200
Annualized Return (%)				
YTD	2.17	-5.30	21.22	1.37
1-Year	3.77	-19.11	34.78	10.16
3-Year	-1.97	-16.39	2.93	9.42
5-Year	5.61	3.99	2.14	8.81
Since Nov. 30, 2015	7.11	5.22	3.58	10.11
Annualized Volatility (%)				
1-Year	14.86	18.22	18.09	11.13
3-Year	16.73	24.16	25.94	17.65
5-Year	16.85	26.29	22.13	14.78
Since Nov. 30, 2015	16.87	25.09	21.41	13.96
Return/Volatility				
1-Year	0.25	-1.05	1.92	0.91
3-Year	-0.12	-0.68	0.11	0.53
5-Year	0.33	0.15	0.10	0.60
Since Nov. 30, 2015	0.42	0.21	0.17	0.72
Other Characteristics				
Maximum Drawdown (%)	22.97	46.97	36.95	26.75
Return/Maximum Drawdown	0.31	0.11	0.10	0.38

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2022. Index performance based on monthly total return in AUD. Past performance is no guarantee of future results. The S&P/ASX Agribusiness was launched May 30, 2022. All data prior to the index launch date is hypothetical back-tested data. Chart and table are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Conclusion

Given the fundamental role of agribusiness to human society, it warrants visibility and recognition in capital markets. The S&P/ASX Agribusiness Index seeks to measure the performance of publicly listed companies involved in this industry, which is critical to the Australian economy. The index offers comprehensive coverage of the agribusiness industry, historically resilient performance and a potential source for return diversification. It marks a new milestone of how indexing can help gauge the Australian market.

Performance Disclosure/Back-Tested Data

The S&P/ASX Agribusiness Indices was launched May 30, 2022. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at www.spglobal.com/spdji. Past performance of the Index is not an indication of future results. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

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