

EMPLOYMENT AND DEMAND IN THE INDUSTRIAL SECTOR – BEYOND THE HEADLINE FIGURES

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Summary

The typical methodology frequently used to project industrial floorspace demand has been to look at the change in the ‘headline’ employment figures of those industry sectors that traditionally occupy industrial zoned land (i.e. Manufacturing, Wholesale Trade, and Transport, Postal and Warehousing). However, the question needs to be raised - *Is this the most accurate method of forecasting demand for industrial space when historically there has been an inverse relationship between the headline employment in manufacturing (decreasing) and the demand/net absorption for industrial floorspace (increasing)?*

A recent report published by Advanced Manufacturing Growth Centre (AMGC) titled ‘Advanced Manufacturing: A New Definition for a New Era’ draws attention to the fact that the Australian manufacturing sector is “larger and more diverse than thought” and is becoming more “advanced”. Therefore, the definition of Manufacturing should be broadened to encompass this evolving industry.

This paper highlights the following:

- The headline ABS employment trend figures for the traditional industry sectors occupying industrial zoned land
- The sub-industry sectors that have experienced growth within the overall declining Manufacturing and Wholesale Trade industries
- The need to look at a basket of employment industries that could potentially occupy industrial zoned land / be part of an industrial business
- The implication for industrial space going forward, with respect to new (retail) entrants into the Australian market.

Headline Data

ABS Employment Industry Sectors



■ Significant traditional occupiers of industrial zoned land

The overall headline data for Manufacturing, Wholesale Trade, and Transport, Postal and Warehousing is shown in the table below.

Employment (Australia)

Traditional Industrial Industry Sector	Employed Persons ('000)	YoY Growth	5-year Annual Growth	10-Year Annual Growth
Manufacturing	876	-8.9%	-1.7%	-1.7%
Wholesale Trade	362	1.2%	-2.8%	-0.3%
Transport, Postal and Warehousing	652	4.8%	1.7%	1.7%
Total	1,890	-1.0%	-0.3%	-0.1%

To Note: as at November 2017
Source: ABS / Colliers Research

Taking a closer look at Employment by Industry Sub-Sectors

The following tables show the ABS's classification of the sub-sectors for Manufacturing, Wholesale Trade, and Transport, Postal and Warehousing.

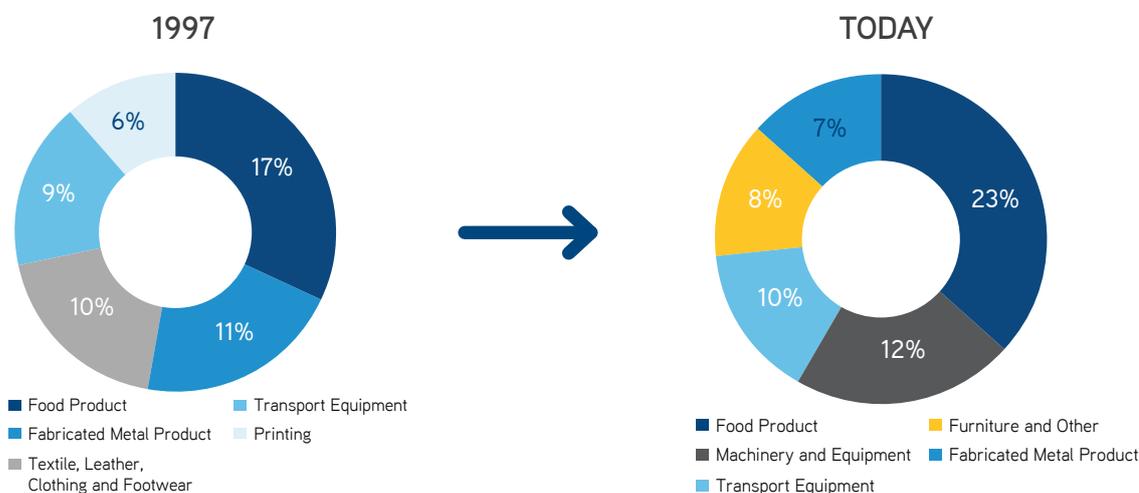
Manufacturing Industry Sub-Sectors	Share of Manufacturing Industry	5-Year Annual Growth	10-Year Annual Growth
Fabricated Metal Product	10%	12.5%	1.4%
Wood Product	6%	7.1%	1.3%
Pulp, Paper and Converted Paper Product	2%	5.3%	-0.7%
Furniture and Other	7%	3.0%	0.4%
Beverage and Tobacco Product	3%	2.7%	1.9%
Basic Chemical and Chemical Product	5%	2.1%	0.1%
Petroleum and Coal Product	1%	1.4%	4.2%
Food Product	23%	0.5%	0.0%
Machinery and Equipment	13%	-0.8%	-1.2%
Non-Metallic Mineral Product	3%	-1.9%	-3.3%
Textile, Leather, Clothing and Footwear	4%	-3.3%	-3.4%
Transport Equipment	8%	-3.7%	-3.9%
Printing (including the Reproduction of Recorded Media)	4%	-5.7%	-3.8%
Primary Metal and Metal Product	6%	-7.4%	-3.7%
Polymer Product and Rubber Product	3%	-8.0%	-5.5%
Manufacturing nfd	2%	-29.1%	-13.3%
Total Manufacturing Industry	100%	-1.7%	-1.7%

Wholesale Trade Industry Sub-Sectors	Share of Wholesale Trade Industry	5-Year Annual Growth	10-Year Annual Growth
Other Goods	25%	3.5%	0.8%
Basic Material	24%	2.0%	-0.7%
Grocery, Liquor and Tobacco Product	17%	-1.6%	-1.4%
Motor Vehicle and Motor Vehicle Parts	7%	-2.5%	-2.5%
Machinery and Equipment	24%	-3.3%	2.1%
Commission-Based	2%	-4.1%	-0.1%
Wholesale Trade nfd	1%	-43.1%	-22.8%
Total Wholesale Industry	100%	-2.8%	-0.3%

Transport, Postal, and Warehousing Industry Sub-Sectors	Share of Transport, Postal, and Warehousing Industry	5-Year Annual Growth	10-Year Annual Growth
Road Transport	46%	5.5%	6.8%
Air and Space Transport	9%	4.5%	-6.7%
Transport Support Services	13%	4.2%	2.0%
Warehousing and Storage Services	10%	1.4%	1.3%
Postal and Courier Pick-up and Delivery Services	13%	0.5%	-3.8%
Rail Transport	7%	-0.4%	3.1%
Water Transport	1%	-1.6%	-1.0%
Other Transport	1%	-2.3%	3.8%
Transport, Postal and Warehousing nfd	1%	-24.4%	-9.9%
Total Transport, Postal, and Warehousing Industry	100%	1.7%	1.7%

To Note: sub-sectors ordered according to '5-Year Annual Growth' highest to lowest; 'nfd' stands for Not Further Defined; as at November 2017
Source: ABS / Colliers Research

Top 5 Sub-Sectors Share of Total Manufacturing Industry



Source: ABS / Colliers Research

From the tables, the following points are drawn:

- There are Manufacturing and Wholesale Trade sub-sectors that have recorded positive 5-year annual growth– contrary to the overall declining headline figures for Manufacturing and Wholesale Trade
- The Manufacturing sub-sectors that recorded positive 5-year annual growth rates, combined, make-up around 60 per cent of the total Manufacturing employment industry
- The Wholesale Trade sub-sectors that recorded positive 5-year annual growth rates, combined, make-up around half of the total Wholesale Trade employment industry
- The total Transport, Postal and Warehousing industry has recorded positive short and medium run annual employment growth, in line with the 10-year annual average of 1.7 per cent
- If solely using employment figures to calculate industrial floorspace demand in the future, it is important to analyse at a sub-industry sector level and allocate different ‘weightings’ to each as the employment density will vary by sub-sector rather than by total industry sector.

Beyond the Headline Figures

The need to Consider a Wider Basket of Industry Sectors when Calculating the Demand for Industrial Floorspace in the Future

Against a backdrop of an evolving manufacturing industry - where this involves workers that are not necessarily classified in ‘traditional industrial’ employment sectors - coupled with the expanding uses of business activity on industrial and business zoned land, it is important to consider a wider basket of industry sectors’ employment growth when calculating projected industrial floorspace demand.

Although the typical occupiers of industrial zoned land include the industry sectors of Manufacturing, Wholesale Trade, and Transport, Postal and Warehousing, the following employment industry sectors also have scope to occupy industrial and business zoned land:

- Retail Trade
- Construction
- Information Media and Telecommunications
- Electricity, Gas, Water and Waste Services
- Administrative and Support Services
- Professional, Scientific and Technical Services.

How about within major industrial hubs?

Relatively new industrial property developments increasingly incorporate a higher quality office component that parallels to the quality levels delivered in major commercial markets. This is particularly relevant to transport and logistic type facilities, where there is strong development competition to secure tenants.

The majority of new industrial floorspace added to the market in recent years, particularly in Sydney, has been concentrated

around the transport and logistics sector. This sector has, and will continue, to encompass a blend of white/blue collar workers as the supply chain process (both the internal flow of the warehouse and external delivery process to the end-consumer) becomes more sophisticated and important (e.g. supply chain managers).

Automation also partially explains the decrease in total Manufacturing employment. Within a ‘three sector economy’ the manufacturing process lies within the ‘secondary’ stage of production (i.e. the transformation of raw/intermediate materials to goods) – it is this stage that is increasingly being dominated by automation. The fact that more automotive machinery (advances in technology) is being adopted by businesses does, to an extent, mean the replacement of workers. Labour will be reallocated away from those classified in the Manufacturing industry, towards other sectors that perhaps require the skills in operating new machinery/technology and analysing consumer data (i.e. Professional, Scientific and Technical Services, and Research & Development).

As a result, the adoption of automotive technology does not necessarily translate to a net reduction in the industrial floorspace required.

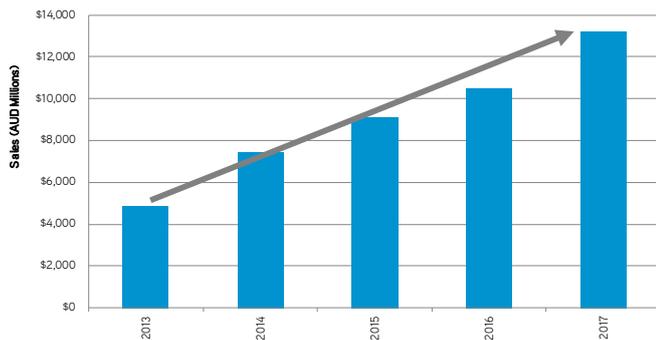
Further supporting this is a recent study published by the Economic Policy Institute, ‘Unfulfilled Promises: Amazon fulfillment centers do not generate broad-based employment growth’ (2018), which finds that “when Amazon opens a new fulfillment center, the host country gains roughly 30 percent more warehousing and storage jobs but no new net jobs overall...”. This demonstrates that there was no clear correlation between employment in the typical industrial industry sector and the demand for industrial floorspace.



Spillover Effects from Growth in the Retail Sector

One element of ABS employment figures that is consistent with industrial floorspace demand is the growth in Transport, Postal and Warehousing industry sector. The transport and logistics sector has been dominating the demand for industrial property, with strong growth projected as the demand for goods rise, on the back of consistent economic growth and robust projected population growth. Fueling this trend is Australia's growing eCommerce industry, currently making up almost 40 per cent of the online retail market.

National Online Retail Sales



To Note: Online retail sales defined as the sum of 'pure-online sales' and 'multi channel online retail trade'

Source: ABS / Colliers Research

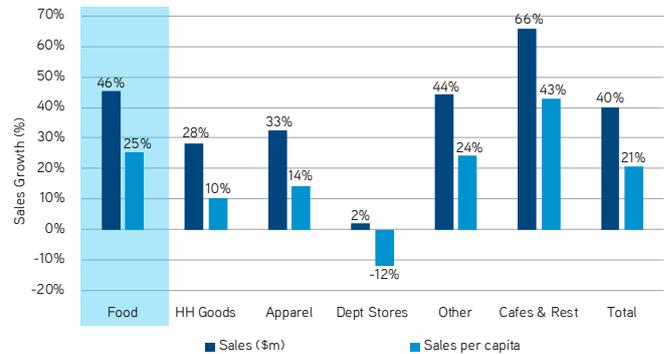
National retail sales in Non-Discretionary goods (such as food) has also shown relatively strong growth. The expansion of industries within the food sector for example would push industrial floorspace demand for food/cold storage space and food manufacturing/production.

For example, Kaufland and Aldi are expanding their operations in Australia. Kaufland recently entered the Australian market by securing its first Distribution Centre (DC) in South Australia (36,000 sqm industrial site), with more DCs and outlets expected to be established across Australia. Approximately 80 per cent of Kaufland's sales in Germany are grocery related.

In May 2017, Colliers Research released a report 'The Amazon Network' examining its global logistics footprint. Identified in this report were four types of Amazon's operational facilities which occupy industrial/business zoned land – ranging from an average of 6,000 sqm (Prime Now Hubs and Delivery Stations for the last mile) to 100,000 sqm (Sortable, Large Non-Sortable, and Fulfillment centres). Amazon entering the Australian market will further ramp up eCommerce sales, and this directly translates to demand for industrial space – whether it be from Amazon directly

or from facilities it may outsource to other businesses. Although many jobs are expected to be created, employment growth figures in the industrial industry sector are likely to underestimate the additional industrial floorspace demand. This is because many of Amazon's fulfillment centres rely on automation for order fulfillment as well as a number of workers classified in sectors that are non-industrial (e.g. supply chain managers which are a blend of a white-collar a blue-collar worker type).

Annual Retail Sales Growth, Pre-GFC vs Today

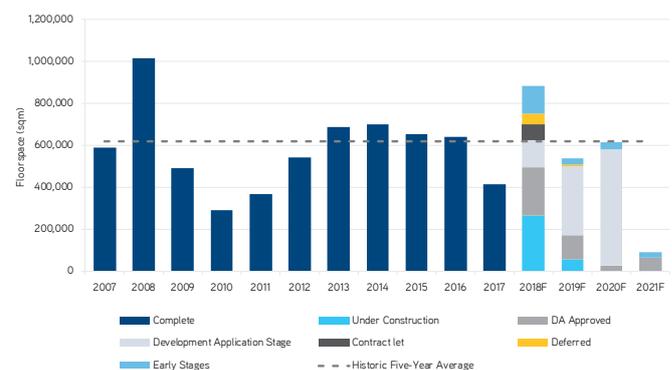


To Note: 'Pre-GFC' refers YoY sales to July 2008, and 'Today' refers YoY sales to July 2017
Source: ABS / Colliers Research

Industrial Floorspace Demand Projection

The analysis in this report highlights that the underlying growth in industrial roles will continue to expand. Coupled with the likelihood that the broader industrial sector will be supplemented by a spillover from the retail sector, we expect that the national industrial market will absorb the industrial floorspace in the development pipeline to be delivered between now and 2021.

National Industrial Supply Pipeline



To Note: Includes developments above 5,000 sqm; as at Q4 2017
Source: Cordell Connect / Colliers Research