

Costs and Margins in the Retail Supply Chain

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Retail goods are an important component of the consumption basket and changes in their prices have had a significant influence on CPI inflation over the past decade, particularly following movements in the exchange rate. To help understand the drivers of inflation for retail goods, this article sets out the major costs and margins involved in supplying retail goods to consumers. Notwithstanding dispersion across different types of goods, on average, around half of the final price of retail items can be attributed to the cost of the goods themselves, with the remaining half covering the gross margins of wholesale and retail firms in the distribution supply chain. The costs incurred by distributors are broadly split between labour and other input costs, with distributors’ profit margins accounting for a little under 10 per cent of the final sale price. These shares have remained relatively stable for at least the past decade.

Introduction

The retail supply chain, which includes both retailers and parts of the wholesale sector, accounts for a significant part of Australian economic activity, representing around 7 per cent of GDP and more than 10 per cent of total employment. Purchases of retail goods (such as food and beverages, clothing, household goods and motor vehicles) collectively make up around 30 per cent of the basket of household expenditure covered by the consumer price index (CPI). To better understand the factors that influence trends in retail goods prices, and hence overall inflation, it is helpful to know the various costs incurred and margins applied by distributors (retailers and wholesalers) in the process of getting goods to consumers. For example, it is useful to know how much of final prices is due to the cost of imported goods when assessing the extent to which movements in the exchange rate are likely to be reflected in final consumer prices. Likewise, knowing the cost incurred in employing labour to distribute goods enables an understanding of the impact of changing labour costs on retail prices. More generally, the relative importance of distribution costs in the

overall supply chain has important implications for how changes in demand or discounting behaviour can affect firms’ profitability.

This article presents evidence on the magnitude of these various costs and margins, along with some discussion about how these have changed over time. While there is significant dispersion in margins across different types of distributors, in terms of average margins there are two key results. First, in relation to how the costs of producing and selling retail goods are divided among various inputs: around half of the final sale price can be attributed to the cost of goods (of which 40 per cent is imported), with the other half reflecting the costs associated with distribution. These distribution costs are the amounts paid for labour and other inputs, and the net profits of distributors: around 25 per cent of the final sale price is due to various intermediate inputs (such as rent and business services), and a further 15 per cent is attributable to labour inputs, leaving a little under 10 per cent of the final sale price as profits for the domestic distribution sector.

Second, the prices of domestically produced manufactures and the prices of labour and intermediate inputs used in the distribution process have risen faster than final consumer prices. In

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response to competitive pressures, distributors appear to have increased the volume of goods sourced from foreign manufacturers and generated significant productivity gains. As a result, the average prices that distributors pay for manufactured goods have risen only gradually over the past decade – and broadly in line with the final consumer prices – and distributors’ margins have remained relatively stable.

The Retail Supply Chain

In order to understand the details of the cost structure of retail goods, it is helpful to first consider the process by which these goods are made available to consumers at retail outlets, and the costs involved in each stage of the supply chain.

Figure 1 sets out the stylised process involved in moving goods from manufacturers to consumers.¹ The start of this process is the production of goods in factories, be they in Australia or overseas. To produce these goods, manufacturing firms require raw materials (including imported materials) and incur a range of costs in production, the largest of which are typically labour and energy. Having produced the item, the manufacturer then sells and transports the product to a wholesaler. As part of this process, the manufacturer (or wholesaler) will incur transport costs and, if the goods are sourced from overseas, shipping and potentially tariff costs. The cost of the product itself and these transport and tariff costs collectively comprise the wholesaler’s ‘cost of goods sold’ (COGS). For the wholesaler to distribute these goods to retailers, it must also incur operating costs, which are collectively referred to as the wholesalers’ ‘cost of doing business’ (CODB), and include expenses paid by the wholesaler to its staff, landlords and freight providers (as well as the holding cost of inventory). To cover these costs and generate a return on its assets, the wholesaler applies a ‘gross margin’ (which is the difference between its sale and purchase price, or equivalently the sum of its CODB and ‘net’ or profit margin). At this stage, ownership of

the goods passes to a retailer, who pays the sum of COGS and the wholesaler’s gross margin.

The final stage in the process is for the retailer to sell products to consumers. As with the wholesaler, the retailer incurs a range of costs collectively referred to as the retailers’ CODB. These costs of doing business include its staff and rent costs, and other expenses such as marketing, packaging and administration (among others). The final price charged by the retailer includes what it has paid the wholesaler plus the retail gross margin, which covers its own cost of doing business and its profit margin.²

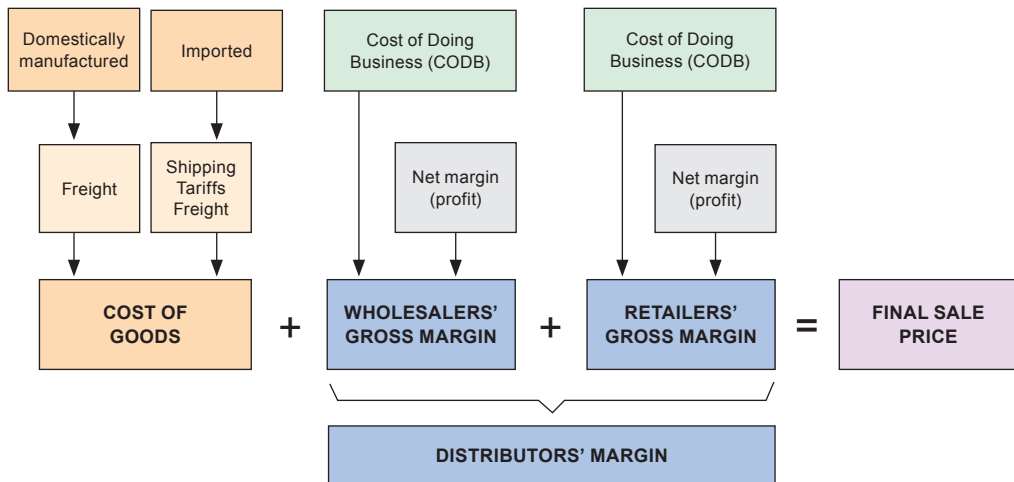
In summary, there are five major types of costs incurred in getting retail goods to market: the cost of the goods themselves (which includes any freight to warehouses and applicable tariffs); the wholesaler’s cost of doing business; the wholesaler’s net margin; the retailer’s cost of doing business; and the retailer’s net margin. The gross margins of the wholesalers and retailers in the distribution sector are the sum of their cost of doing business and net margins. These gross margins represent a payment for the services provided by distribution firms acting as intermediaries between manufacturers and consumers. All margins are typically expressed as a share of revenue or final prices.

The process by which retailers determine an appropriate gross margin to apply to various goods is complicated, with most retailers varying this margin across each product they sell. There are a range of factors that influence this decision. The competitiveness of the market for the good is important; goods that are sold exclusively through a limited set of retailers are likely to have a larger gross margin. At the extreme, some retailers claim that the market for their good is so competitive that final prices bear little resemblance to costs due to the need to price-to-market, at least in the short term. The characteristics of the retailer itself can also matter, for example, with retailers that operate with rapid turnover of stock typically applying smaller

¹ This is a stylised process because in some cases wholesalers may sell directly to consumers, or retailers may bypass wholesalers and source goods directly from manufacturers.

² Goods and services tax is also levied by the retailer at this stage, but the one-off effect on prices of its introduction is excluded from the measures of consumer prices used in this article.

Figure 1: The Supply Chain for Retail Goods



Source: RBA

gross margins than others (consistent with lower costs of carrying stocks).

The remainder of this article sets out the relative importance of each of these costs and margins, and how they have changed over time, drawing primarily on the input-output tables published by the Australian Bureau of Statistics (ABS).³ These tables provide a detailed snapshot of the Australian economy at a point in time. As the name suggests, they enable an examination of the inputs that are used by industries to produce outputs, and so they capture the inter-relationships between industries throughout the economy. The tables identify how much of each input (goods, intermediate inputs and labour) is used to produce a unit of a given type of output. The extent to which goods and intermediate inputs are sourced from domestic or overseas manufacturers can also be identified, and information on the margins that are applied by distributors can be inferred. Input-output tables are published with a considerable time lag, reflecting the scale of information required; the latest available data are for 2007/08. More recent estimates of

expenditure on inputs to the retail supply chain, based on alternative ABS data, suggest that the key results presented here are unlikely to have changed substantially since 2007/08. Indeed, independent estimates of these various costs and margins have been derived through recent discussions with a range of retailers and are generally very similar to the results shown below.

The Cost Structure of Retail Goods

Estimates using these input-output tables show that around half of the final price of retail goods can be attributed to the cost of goods and half to distributors' gross margins (Table 1). These shares have changed only moderately over the nine years from 1998/99 to 2007/08, with the share owing to the cost of goods declining by 3 percentage points over this time. Around 60 per cent of expenditure on sourcing goods is for domestically manufactured goods, while the remaining 40 per cent is for imports.⁴ Although the relative expenditure shares

3 The input-output framework employed in this paper is similar to that used by Campa and Goldberg (2005), which assesses the size of distribution margins across countries and industries in the late 1990s and early 2000s. The use of ABS input-output data is detailed further in Appendix A.

4 The largest contributors to the domestic share of expenditure on sourcing goods are domestically manufactured food and motor vehicles. The imported share (of 40 per cent) includes motor vehicles and computing & electronic equipment as well as clothing. This estimate of the import share does not include any imported intermediate inputs used in the production of domestically manufactured goods. Taking this into account would increase the import share of total expenditure on goods to around 50 per cent.

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on imported and domestically produced goods have not changed greatly over time, the volume of imports has risen sharply in response to lower import prices, with these two effects offsetting each other. This is consistent with global trade developments and Australia's evolving trade patterns, which have seen strong growth in imports of manufactured goods, including consumer goods, balanced by sustained growth in Australia's commodity exports.

Distributors' gross margins can be divided into a wholesale and retail component, with each able to be further broken down into the CODB and net margin for each sector. In 2007/08, retailers' gross margins accounted for around one-third of the final price of retail goods, with wholesalers' gross margins around half that (Table 2). The bulk of these gross

margins reflect a charge to cover distributors' CODB (a total of 40 per cent of the final sale price), with the remainder reflecting net profit margins at the wholesale and retail levels. Interestingly, the gross margin share for wholesalers has risen significantly since the early 2000s, with part of this increase offset by a decline in the share of final prices attributable to the retailers' gross margin. In both cases, these changes reflect movements in their CODB, with net margins little changed.⁵

An alternative way to split distributors' gross margins is into the various types of inputs used. Table 3 shows that the cost to distributors of employing labour accounts for just under 20 per cent of the final sale price, with intermediate inputs comprising a little more than 20 per cent of the final price. Of

Table 1: Components of Retail Prices
Per cent of final sale price

| | Cost of goods | | | Distributors' gross margins |
|---------|---------------|----------|-------|-----------------------------|
| | Imports | Domestic | Total | |
| 1998/99 | 18 | 37 | 55 | 45 |
| 2004/05 | 18 | 36 | 53 | 47 |
| 2007/08 | 20 | 32 | 52 | 48 |

Sources: ABS; RBA

Table 2: Distributors' Gross Margins
Per cent of final sale price

| | Wholesalers | | | Retailers | | | Total |
|---------|-------------|------------|-------|-----------|------------|-------|-------|
| | CODB | Net margin | Total | CODB | Net margin | Total | |
| 1998/99 | 8 | <1 | 9 | 33 | 3 | 36 | 45 |
| 2004/05 | 10 | 2 | 12 | 28 | 7 | 35 | 47 |
| 2007/08 | 14 | 2 | 16 | 26 | 6 | 32 | 48 |

Sources: ABS; RBA

Table 3: Distributors' Gross Margins by Input
Per cent of final sale price

| | Labour | Other inputs | Net margin | Total |
|---------|--------|--------------|------------|-------|
| 1998/99 | 17 | 25 | 3 | 45 |
| 2004/05 | 14 | 24 | 9 | 47 |
| 2007/08 | 17 | 23 | 8 | 48 |

Sources: ABS; RBA

⁵ The decomposition of distribution margins into wholesale and retail components can be affected by reclassification over time; the relative contribution of the wholesale sector may have expanded due to an increasing number of wholesalers engaging in direct retailing activity.

these intermediate inputs, the most significant for wholesalers are property & business services and transport, while the most important for retailers are rent, finance and business services. Retailers are somewhat more labour-intensive than wholesalers: labour and intermediate inputs account for a similar proportion of retailers' CODB, but intermediate input expenses for wholesalers are around twice that of their expenditure on labour.

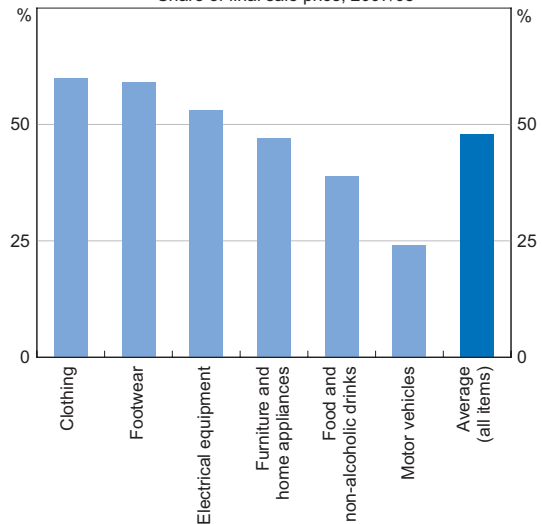
The input-output tables also provide estimates of the gross margin for various types of manufactured goods, and illustrate a wide range of dispersion around the aggregate results presented in Table 1. For example, in 2007/08, distributors' gross margins are somewhat higher for clothing and footwear (around 60 per cent), close to average for electrical equipment and homewares (including furniture and domestic appliances), slightly lower for food and non-alcoholic drinks and significantly lower for motor vehicles (around 25 per cent; Graph 1).

As a cross-check on the estimates obtained from the input-output tables, estimates of the relative importance of each cost and margin have been obtained through discussions with distributors. At an aggregate level, these figures are very similar to the cost structure presented in the tables above. The estimates of gross margins by type of product in Graph 1 are also consistent with those derived from our discussions. Furthermore, distributors highlighted the fact that gross margins can vary significantly from the aggregate results across outlets, as a result of differences in the scale of operation and speed with which stock turns over. For example, department stores and discount clothing outlets (which have rapid turnover) typically apply much smaller gross margins than high-end fashion outlets, whose turnover is much less frequent and gross margin larger as a result.

Summarising all this, the cost of goods accounts for around half of the final sale price of retail items, shared between its two inputs – imports and domestically produced goods (Graph 2). The remainder reflects the cost of distribution. Splitting this into the various

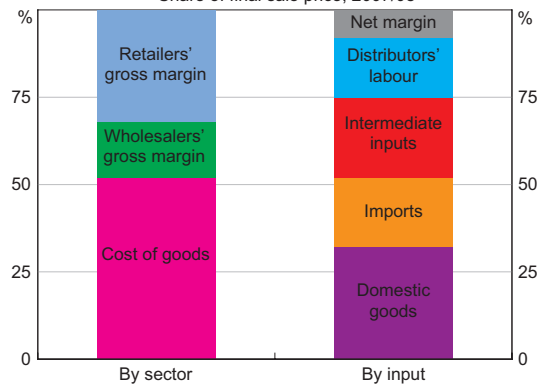
inputs involved in distribution shows that around 20 per cent of the final price is attributable to each of labour and intermediate inputs used by distributors, with the final 10 per cent of the sale price being the net profit of wholesalers and retailers combined.

Graph 1
Distributors' Gross Margins by Product Type
Share of final sale price, 2007/08



Source: ABS

Graph 2
Cost Structure of Consumer Goods
Share of final sale price, 2007/08



Sources: ABS; RBA

Trends in Input Prices and the Composition of Inputs

Although the cost structure of retail goods has been broadly stable over the past decade or so, this has

occurred despite disparate trends in the prices of inputs to the retail supply chain. In particular, the prices of inputs involved in distributing goods – including labour and domestic intermediate inputs – have risen faster than both the prices distributors pay for manufactured goods and the final prices distributors receive from consumers. This reflects changes in the competitive environment that have required distributors to adjust the composition and use of inputs over time. In particular, a greater volume of goods have been sourced from foreign suppliers and distributors have improved productivity over time, so that the inputs to distributing goods are used more efficiently.

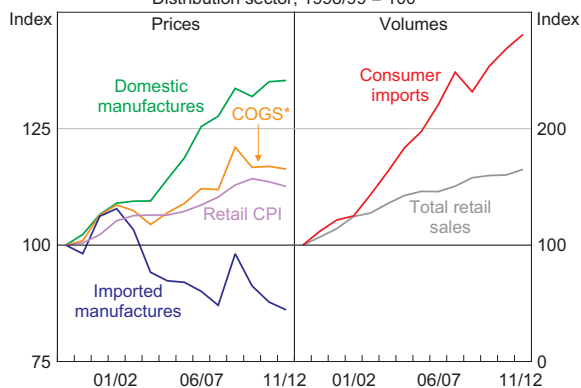
The average price distributors pay for goods is determined by prices for domestically manufactured goods and imported goods. The producer price index's measure of the prices received by manufacturers for their goods (excluding oil) is a reasonable proxy for changes in the cost of domestically produced goods and the import price index for consumer goods measures changes in the price of imported retail goods.⁶ The prices of domestically produced goods have risen steadily since 1999, but import prices have trended down since the early 2000s, with particularly pronounced deflation between 2002 and 2005 and in the last few years, following episodes of sharp appreciation in the Australian dollar (Graph 3, left panel). In addition to the effect of the higher exchange rate, import prices have also been held down by the emergence of China and other Asian economies as low-cost suppliers of manufactured goods. Despite the fall in import prices, the shares of expenditure on imported and domestically produced goods shown in Table 3 have been fairly stable. This indicates that falls in the price of imported goods have been offset by a compositional shift toward more imported goods. This compositional shift is evident in the imports data, with growth in the volume of

consumer imports outpacing growth in aggregate sales volumes (Graph 3, right panel).

To see how the average price distributors pay for manufactured and imported goods – the price index for COGS – has changed over time, it is necessary to weight together the price series for domestically manufactured goods and imported goods according to their evolving shares. Falling import prices and the resulting compositional shifts have helped to restrain inflation in the average price distributors pay for manufactured goods. The cumulative rise in the estimated price series for goods sold, of around 12 per cent between 1998/99 and 2007/08, is similar to the rise in the price of retail goods in the CPI, consistent with the relatively stable share of the cost of goods in final prices.⁷

Relative to the average price distributors pay for manufactured goods and final selling prices, the prices of the inputs used to distribute these goods – the various components of the distributors' gross margin – have risen consistently. The price of labour can be measured using the wage price index for the retail and wholesale industries and the price of intermediate inputs can be proxied by constructing an implicit price deflator from national accounts'

Graph 3
Goods – Prices and Volumes
Distribution sector, 1998/99 = 100



* Weighted average of domestic and imported manufactures price indices
Sources: ABS; RBA

6 The producer price index for the manufacturing industry includes a number of items that are unrelated to the price of retail goods, such as construction materials and basic metals. However, excluding such items does not change materially the results presented, and for simplicity such complications are ignored.

7 The compositional shift towards greater import volumes is estimated to have reduced the cumulative increase in the average price distributors pay for goods by around 6 per cent between 1998/99 and 2007/08.

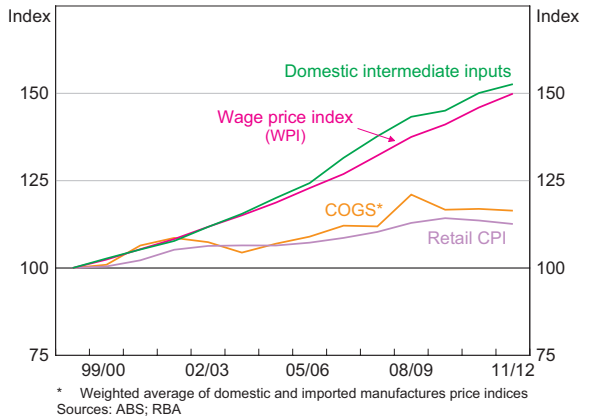
data. These input price measures are shown in Graph 4, alongside the cost of goods sold and the final retail price measure from the CPI. Both wages and the price of intermediate inputs have risen much faster than either the cost of goods sold or final prices, consistent with wage inflation in the broader economy outpacing retail goods price inflation. Annual inflation in wages and the price of intermediate inputs has been over 3 per cent since 1998/99, compared with less than 1 per cent annual inflation in final prices for retail goods. Within the intermediate inputs series, the prices of most major expenditure items (including rents and the prices of road freight, warehousing and various business services) have also increased by between 3–4 per cent per annum.⁸

The faster pace of inflation in wages and intermediate input costs faced by distributors, relative to final sale prices, has been offset by productivity improvements in the distribution chain. The number of hours worked in the distribution sector has risen by much less than growth in the volume of goods distributed. In other words, ongoing productivity gains have resulted in a significant fall in the number of hours required to achieve one unit of sales volumes (Graph 5, left panel).⁹ Accordingly, distributors' total expenditure on labour per unit of sales appears to have risen only moderately over this time, and broadly in line with the rise in final retail prices (Graph 5, right panel). Although some of these gains are likely to reflect growth in sales volumes due to improvements in the *quality* of goods (particularly electronics), rather than the quantity handled by the

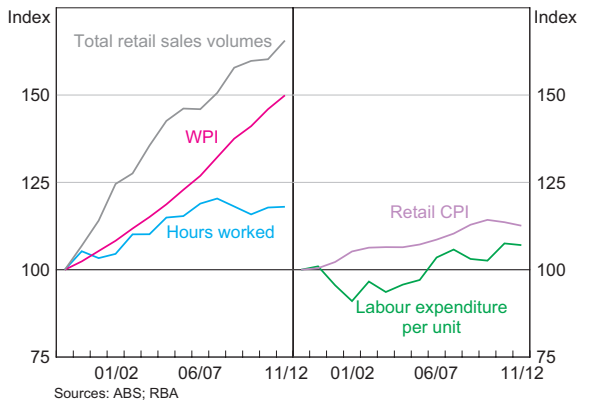
8 These disaggregated estimates of inflation in the price of intermediate inputs are sourced independently of the deflator shown in Graph 4. For rents, data from Jones Lang LaSalle are used. For freight and business services prices, the ABS producer price indices are used.

9 The definition of productivity used here is different to the standard gross value added (GVA) industry measures published by the ABS. Here the output measure is the volume of retail sales and the inputs are the labour and domestic intermediate inputs used in the wholesale and retail sectors. It is thus more akin to a 'gross output' measure of productivity, although the inputs into the manufacture of goods are not included. Nevertheless, the rate of productivity growth by this measure has slowed in the second half of the past decade, in line with the GVA measure and trends in other industries (see D'Arcy and Gustafsson (2012)).

Graph 4
Distribution Sector – Input Prices
1998/99 = 100



Graph 5
Distribution Sector – Labour Costs
1998/99 = 100



distribution chain, advances in distribution sector efficiency have also been important.

Increases in efficiency have occurred through a combination of both investment in new capital and the more efficient use of labour, perhaps reflecting trends such as the growth of 'big box' retailing, and greater use of information technology and advanced supply chain techniques to reduce the need for logistical staff at the wholesale and retail level. Distributors are also likely to have found some efficiency gains in their use of intermediate inputs over this time, including improved inventory management, that have enabled them to stabilise

the share of their revenue that is paid to providers of intermediate inputs. Indeed, such a result is consistent with the finding from input-output tables that the share of final prices accounted for by the CODB has increased only marginally over time.

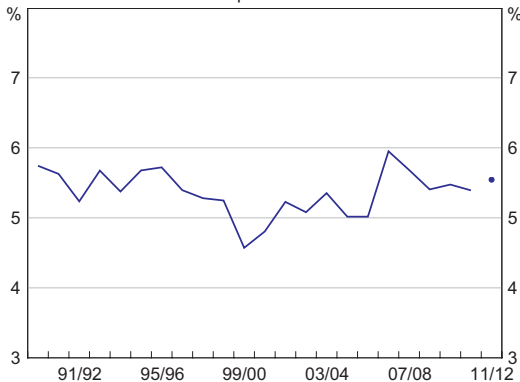
Aside from the inputs to distribution – for which prices have risen relatively rapidly – the remainder of the gross margin is the distributors’ profit or net margin. The analysis based on input-output tables relies on a range of assumptions and is not precise enough to provide time-series estimates of changes in distributors’ net margins.¹⁰ Nevertheless, ABS data on profits and revenues in these sectors provide some guidance, and suggest that retail net margins have been relatively stable over the past decade or so (Graph 6).¹¹ This suggests that the adjustments made by distributors, in shifting supply toward more

imported goods and in becoming more efficient in their use of domestic inputs, have not only maintained relatively stable gross margins but have also prevented large declines in net margins.

Conclusion

Input-output tables contain a wealth of information on the relative importance of various costs incurred in getting goods from factories and ports to consumers. These data contain some important insights. One is that only half of the final price of retail goods is attributable to the cost of producing these items. The other half is the cost of distributing these items, with just under 20 per cent owing to the cost of employing labour in the distribution sector, a little over 20 per cent paid to providers of intermediate inputs such as freight and rent, and the remaining 10 per cent is retained by distributors as profit. These results also show that the growing importance of imported goods, which in part have had a lower rate of inflation owing to the appreciation of the Australian dollar, has contributed to restraining inflation in consumer goods. It also highlights the importance of ongoing productivity improvements in the distribution chain, which over the past decade have helped to keep the cost of doing business from rising in line with the prices of domestic inputs, including wages. The nature of retailing is continually changing, particularly in recent times with the rapid growth of online retailing and changing consumer preferences (Productivity Commission 2011). This is likely to see further evolution in how distributors organise their operations.

Graph 6
Retailers’ Net Margins
ABS implied estimate*



* Gross operating surplus (from national accounts) as share of income from sales (from Business Indicators survey)
Sources: ABS; RBA

¹⁰ Although it is possible to construct an estimate of the net margin within the framework developed in this article, the estimate would be subject to considerable measurement error as it would incorporate measurement error from each of the four cost components. In particular, it is difficult to precisely estimate how expenditure on intermediate inputs has changed since 2007/08 and quantify the effect of efficiency gains in the use of intermediate inputs.

¹¹ The ABS currently does not calculate an explicit measure of retail net margins (although the possibility of publishing a measure as part of the producer price index is currently being investigated). The measure shown in Graph 6 is calculated from ABS data on profits and sales in the retail sector. Listed retailers’ financial results suggest somewhat greater volatility in net margins, and a sharper decline in recent years, than the more comprehensive ABS data.

Appendix A

This appendix sets out the use of input-output (IO) tables from the ABS to calculate the relative importance of costs and margins as a share of final retail prices. Rows in the IO tables denote supply of each industry, while the columns represent the demand from each industry, including final demand. The tables thus represent the supply-use relationships among all industries and sectors.

The output of an industry is broken down into its uses, for example as an intermediate input into another industry's production or as part of final household or government consumption. Columns in the IO tables denote the sources and magnitudes of each of the inputs used by an industry, including intermediate inputs from other industries, and labour and imports.

The IO tables provide detailed information for over 100 sub-industries, which can be aggregated to form the major industries of interest for this article: consumer goods manufacturing and wholesale and retail trade. One limitation of the IO data for this analysis is that the standard ABS definitions of 'wholesale' and 'retail' cover industries involved in supplying retail goods to households, and also distribution firms involved in supplying intermediate inputs into industries like agriculture. (It does not, however, include restaurants, cafes & takeaway outlets, which are part of the ABS Retail Trade Survey. Accordingly, the outputs of these industries have been excluded from the CPI measure of retail prices, which covers only retail goods.)

Estimates of expenditure shares (the cost structure of retailers) from IO tables were derived using the methodology below. All table numbers in this appendix refer to the ABS input-output tables (ABS 5209.0.55.001).

- The **cost of goods sold** (COGS) is approximated from Table 8 as household final consumption expenditure on the output of the manufacturing industry (manufactured goods). The output of the manufacturing industry in Table 8 includes both domestically produced output and also

similar goods which are imported (referred to as the 'indirect allocation of imports'). In contrast, in Table 5, the output of the manufacturing industry excludes any imported content, with imports separately allocated as an input to an industry's production similar to labour and intermediate inputs. This distinction allows us to estimate the share of final goods which is imported versus domestically manufactured, calculated as the difference between Table 8 and Table 5.

- The distributors' **gross margin** is calculated as a function of the gross margin of wholesalers and retailers. Estimates of wholesale and retail gross earnings are calculated from Table 8 as the value of supply from the wholesale and retail trade industry to households; this is analogous to household consumption expenditure on the services provided by distributors in acting as intermediaries between manufacturers and consumers.
- The division of gross earnings into the **costs of doing business** and **profit** is derived from the wholesale and retail trade industries' use of all other industries' output (both domestic and imported) and compensation of employees, as well as their gross operating surplus.
- The sum of these components approximates total retail trade income and is used as the denominator to convert all these estimates into a margin.
- Distributors' **gross margin by type of product** is derived from Table 4 as the margin divided by the purchasers' price.

To estimate changes in the prices of certain input costs over time, the following methodology is used:

- To calculate a price index for the **cost of goods sold** we use price indices for domestically manufactured goods (the Producer Price Index for the manufacturing industry) and imported consumer goods (the Import Price Index for consumer goods). These two price indices are then weighted by their share of total COGS expenditure, derived from the IO tables. IO

tables (for 1998/99, 2001/02, 2004/05, 2005/06 and 2007/08) provide estimates of the relative expenditure weight of domestic and imported goods in these ‘base’ years. In between the base years, where an IO table is not available, nominal expenditure is interpolated, assuming that both prices and volumes adjust at a constant rate. For estimates after 2007/08, the relative expenditure shares on domestic and imported goods are updated using data on consumer imports prices, manufactures producer prices, consumer import volumes and retail sales volumes).

- A price index for the cost of **domestic intermediate inputs** used by distributors in doing business is constructed using data from the annual national accounts. Implicit price deflators – measured as the ratio of gross value added in current prices and chained volumes terms – are calculated for each industry. These deflators are then weighted according to each industry’s contribution to total usage of intermediate inputs by the distribution sector. This weighted index excludes price changes in any imported intermediate inputs, since these account for no more than 5 per cent of total intermediate input usage.
- To estimate the impact of changes in the *quantity* of imports purchased (relative to domestic manufactures) on inflation in COGS prices over time, we compare published changes in COGS expenditure (from the IO tables) with the expenditure implied by movements in the relative price of imports alone (i.e. assuming no change in relative quantities since the 1998/99 IO table). This exercise suggests that a solid increase in the volume of imported goods has underpinned changes in COGS expenditure in the IO tables, which is consistent with ABS data on consumer import volumes (see Graph 2).

To compare changes in these input prices with final **consumer retail prices**, we calculate a price index for a subset of the consumer price basket which includes a range of ‘retail goods’. Our subset of CPI retail goods includes food & non-alcoholic beverages (excluding fruit & vegetables and meals out & takeaway foods), alcoholic beverages, clothing & footwear (less cleaning, repair & hire of clothing & footwear), furnishings, household equipment & services (less domestic & household services), motor vehicles, spare parts & accessories for motor vehicles, audio, visual & computing equipment & services, newspapers, books & stationary, equipment for sports, camping & recreation and games toys & hobbies. ↗

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