



# *Economic contribution of the New Zealand publishing industry*

## *Final report*

*This study highlights the economic contribution of the New Zealand publishing industry in terms of employment, GDP and wider impacts*

June 2014

**pwc**

*Strictly Confidential*

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# *Executive summary*

## *Background and purpose*

This report examines the contribution of the publishing industry to the New Zealand economy and provides estimates measuring the magnitude of that contribution for 2012 (the most recently available data). It estimates that the industry makes a significant total contribution to the New Zealand economy, due both to activity occurring within the industry proper, in publishers and booksellers, and other industries' activities supported by the publishing industry.

The analysis takes account of the direct, indirect and induced economic impacts created by the industry to determine the industry's total economic contribution. In other words, it measures not just the activities that occur within the industry itself, but the subsequent effects of that spending as money, labour and materials impact other industries.

To quantify the economic contribution of the publishing industry, three measures are estimated:

- **gross output** (also called total revenue or total sales) – the combined revenues of all publishing industry participants, including both publishers and booksellers
- **value added**, or contribution to gross domestic product (GDP) – the returns to labour and capital attributable to the industry
- **employment** – the number of jobs created as a result of publishing industry activity, measured in terms of full-time-equivalent employees (FTEs).

The New Zealand publishing industry is currently evolving in response to technological and economic changes. Publishers and booksellers are rapidly innovating, developing new services, products and distribution channels. By 2012, some of these effects have become apparent, as new sales channels such as online book stores and new products, including electronic books (Ebooks) are beginning to capture market share from traditional brick-and-mortar book sales. However, overseas experience and more recent information on the New Zealand industry suggest that these changes will accelerate in coming years.

Innovation in products and distribution will create both opportunities and challenges for the publishing industry. Even understanding the scope and impact of these changes may be difficult, as traditional sources of information such as Nielsen BookScan and official statistics published by Statistics New Zealand are often slow to respond to changing products and business models. This report represents an attempt to capture the present state of a changing industry, and to provide a sound basis for accounting for future changes.

## *Results*

The table below outlines the key estimates of the economic impact of the New Zealand publishing industry, across the five principal channels to market.

## Total economic impact of the New Zealand publishing industry

Channel to market	Total sales	Value added (GDP)		Employment (FTEs)	
	(\$m)	Direct impact (\$m)	Total impact (\$m)	Direct impact	Total impact
Store-based sales of physical books	\$188m	\$99m	\$228m	2,250	3,540
Trade sales to libraries and educational institutions	\$15m	\$6m	\$15m	70	160
Online sales of physical books	\$6m	\$2m	\$6m	30	60
Educational publishing	\$64m	\$27m	\$68m	300	710
Ebook sales	\$9m	\$3m	\$8m	40	90
Other sales (rights sales, non-traditional sales)	\$49m	\$23m	\$57m	250	600
<b>Total</b>	<b>\$330m</b>	<b>\$160m</b>	<b>\$382m</b>	<b>2,940</b>	<b>5,160</b>

*PwC Calculations*

#These figures include impacts associated with sales to libraries and educational institutions, but do not include the impact of library employees

This study estimates that in the year ended December 2012, the New Zealand publishing industry generated or supported a significant amount of economic activity across multiple sectors. The New Zealand publishing industry:

- had estimated total book revenues, or gross output, of \$330 million; this figure includes both domestic sales via multiple channels and export sales and overseas rights sales
- these sales were associated with a direct impact on GDP of \$160 million within the publishing and bookselling industry
- after accounting for spillover effects due to purchases from other industries (eg printing and transport industries) and additional spending from wages and salaries paid by the publishing industry, the industry generated or supported a total of \$382 million in GDP
- an estimated 2,940 FTEs worked directly within the publishing and bookselling industry in various roles, including writers, editors, support staff, and sales clerks
- after accounting for spillover effects elsewhere in the economy, the publishing industry generated or supported an estimated total of 5,160 FTEs.

When considering a creative industry such as book publishing, it is important to take a broader view on the economic and cultural role that it plays for New Zealand. In addition to the purely economic effects estimated here, we can identify several wider societal outcomes. These include:

- The role that creative works can have in putting New Zealand “on the map” and creating a recognisable global brand for the country. This can in turn have indirect effects on the economy by enhancing the perception of other New Zealand goods and services, and improving New Zealand’s ability to attract migrants and visitors.
- The importance of publishing in allowing New Zealanders to tell their own stories and develop and express a distinctive national identity. Once again, this may have indirect economic benefits.
- The role that local educational publishing plays in the New Zealand curriculum, as a developer and distributor of New Zealand-specific materials. This has supported New Zealand’s educational outcomes and enabled innovation in the sector.

These types of broader economic, cultural, and educational benefits are not quantified in this study but should be taken into account in any broader analysis of the role of publishing in New Zealand society.

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# Introduction

The purpose of this study is to estimate the contribution of the publishing industry to the New Zealand economy. It provides a snapshot of the publishing industry in the 2012 calendar year (the latest year for which data is available), and an overview of new business models emerging in the sector that is intended to provide a sound basis for tracking and accounting for future changes. It follows on similar work that has been conducted on other creative industries in New Zealand and publishing industries in Australia and elsewhere.

This report has been commissioned by Copyright Licensing New Zealand (CLNZ), and supported with funding and information from other industry bodies. This report should be read in conjunction with the Restrictions in the attached Appendix.

## Acknowledgements

This report is based on data from several different sources in the publishing industry as well as publicly available statistics. Data from Nielsen BookScan, which tracks book sales through some (but not all) booksellers, was used to track retail sales in some segments of the market. However, data for other sales channels, such as Ebooks and educational publications, and retailers that are not surveyed by Nielsen, was not as readily available. In order to address this information gap, New Zealand-based trade and educational publishers helpfully provided supplementary information that was aggregated and used to estimate sales in other channels to market. We acknowledge their valuable contribution to this report.

## Purpose and scope of this report

This report examines some “bottom-line” measures of the publishing industry’s net impact on the national economy. Other sources of information on the publishing industry, such as Nielsen’s BookScan, focus on the total revenue earned by the industry, a “top-line” measure that does not account for factors such as intermediate inputs purchased from other sectors or imported from overseas.

By estimating bottom-line measures, this report enables comparisons between the publishing industry, other industries, and the economy as a whole. It is intended to provide industry participants and policymakers with a robust basis for understanding the importance of publishing activities to the New Zealand economy.

We have estimated three measures of the publishing industry’s economic contribution:

- **gross output** (also called total revenue or total sales) – the combined revenues of all publishing industry participants, including both publishers and booksellers
- **value added**, or contribution to gross domestic product (GDP) – the returns to labour and capital attributable to the industry
- **employment** – the number of jobs created as a result of publishing industry activity, measured in terms of full-time-equivalent employees (FTEs).

In addition to its **direct** economic impacts, an industry will have **spillover** effects elsewhere in the economy. In order to do business, firms must purchase inputs from other industries, while the wages, salaries, and profits that they pay will subsequently be spent elsewhere in the economy. These effects fall into two categories:

- **indirect (or upstream) impacts** occur when businesses in the publishing industry purchase goods and services from other sectors in order to write, publish, or sell a book in print or electronic format.
- **induced (or downstream) impacts** are generated when the wages, salaries, and profits paid out by the publishing industry are spent on goods and services, thereby stimulating further economic activity.

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The **total** economic impact of the industry is equal to the sum of its direct, indirect, and induced impacts. In order to estimate the direct and total economic impacts of the New Zealand publishing industry, we have used multiplier analysis based on national input-output tables<sup>1</sup>. We have described our application of multiplier analysis in Methodology and data sources.

## ***Defining the publishing industry***

### ***What is included in this report?***

This report defines the “New Zealand publishing industry” as the group of businesses located in New Zealand whose chief aim is the creation, distribution, or sale to consumers of books. This definition includes activities undertaken by New Zealand-based book publishers, booksellers, and distributors. It excludes activities related to other types of written content, such as magazine and newspaper publishing and sale and academic journal publication. At this stage, the definition of the industry includes publishers’ sales to libraries but excludes employment and other activities in libraries. While libraries are an important source of books for many New Zealanders, the New Zealand publishing industry does not internalise the value of much of this activity<sup>2</sup>.

We have examined the economic contribution the industry throughout the entire value chain – from the conception of an idea through to the consumption of the finished product through five main channels to market. These channels are:

- **store-based sales of physical books** – the traditional “brick-and-mortar” sales model
- **online sales of physical books** – the delivery of printed content through internet stores such as Fishpond
- **sales to libraries and educational institutions** – the sale of books, and the right to use published content, to institutions that make them available to the public and to students
- **Ebook sales** – the online sale of electronic books
- **other sales channels**, including overseas sales of the right to publish or otherwise commercialise books, and non-traditional sales channels such as book clubs.

We also note that New Zealanders now purchase a significant amount of physical books directly from overseas retailers such as Amazon and BookDepository – imports that take place without the involvement of the New Zealand publishing industry. While consumers benefit from offshore book purchases, this activity does not result in any significant local economic activity. We have therefore sought to exclude purchases of books from overseas-based retailers from our data collection and analysis.

As this classification indicates, traditional sales channels now coexist with emerging models for content provision. New channels to market often imply changes to the broader industry value chain, reorganising the relationship between publishers, wholesalers, domestic retailers, and consumers. In order to interpret and analyse outcomes for the sector, it is therefore important to consider the different characteristics of different channels to market.

This report considers three indicative value chains currently coexisting in the New Zealand publishing industry, reflecting different relationships between parts of the industry and with readers. These value chains inform the analysis of the industry’s economic contribution.

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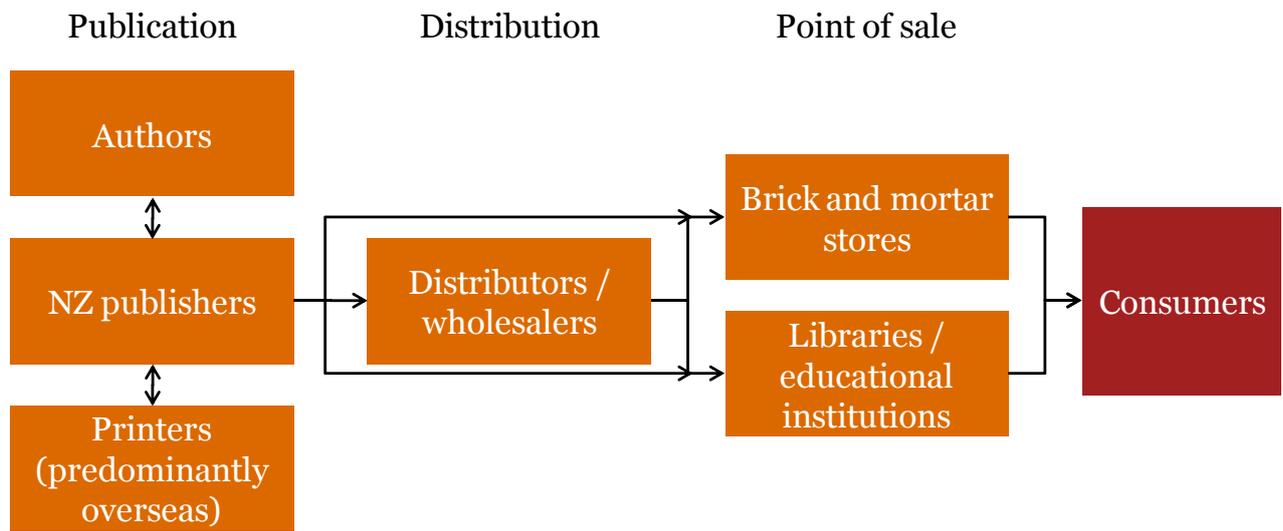
<sup>1</sup> Butcher Partners Ltd (2012), *New Zealand 2006-07 Input-Output Table and Multipliers*, based on Statistics New Zealand data.

<sup>2</sup> Libraries purchase a significant volume of books – in 2012 their acquisition budget totalled \$38.2 million – but they purchase most books from international wholesalers rather than domestic suppliers. Libraries pay \$2 million dollars annually in Public Lending Rights royalties to New Zealand authors, allocated based on the number of books by those authors held in New Zealand collections, and no royalties to publishers or non-New Zealand authors.

**Figure 1** presents the value chain for traditional store-based retail, which still represents the main way that New Zealanders purchase and consume books. In this value chain, New Zealand publishers work with authors, editors, and (largely overseas-based) printers to produce printed books, which are then distributed to the point of sale through (local) wholesalers. In order to reach consumers, booksellers must operate physical stores all over New Zealand.

**Figure 1: Publishing value chain 1 – traditional store-based retail**

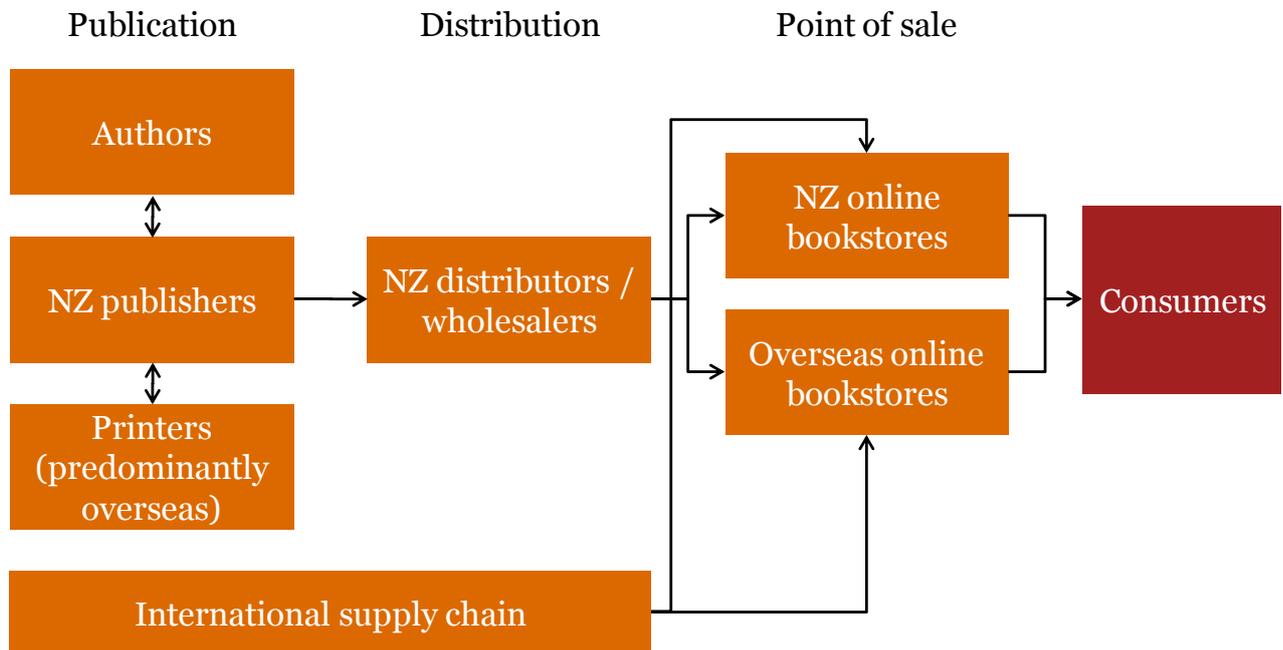
***Publishing value chain: Traditional store-based retail***



**Figure 2** presents the value chain for online retail of print books, which was pioneered in the 1990s by US-based companies such as Amazon.com and subsequently emulated by large brick-and-mortar retail chains. Fishpond.co.nz is the largest New Zealand-based online bookseller, but overseas-based online stores such as Amazon and BookDepository also account for a significant proportion of online sales. (As noted above, we have sought to exclude content purchased from offshore retailers as this involves no domestic economic activity.) In this value chain, consumers purchase books from domestic and overseas online bookstores. These bookstores in turn source books from both New Zealand-based supply chains and international supply chains.

**Figure 2: Publishing value chain 2 – online retail of print books**

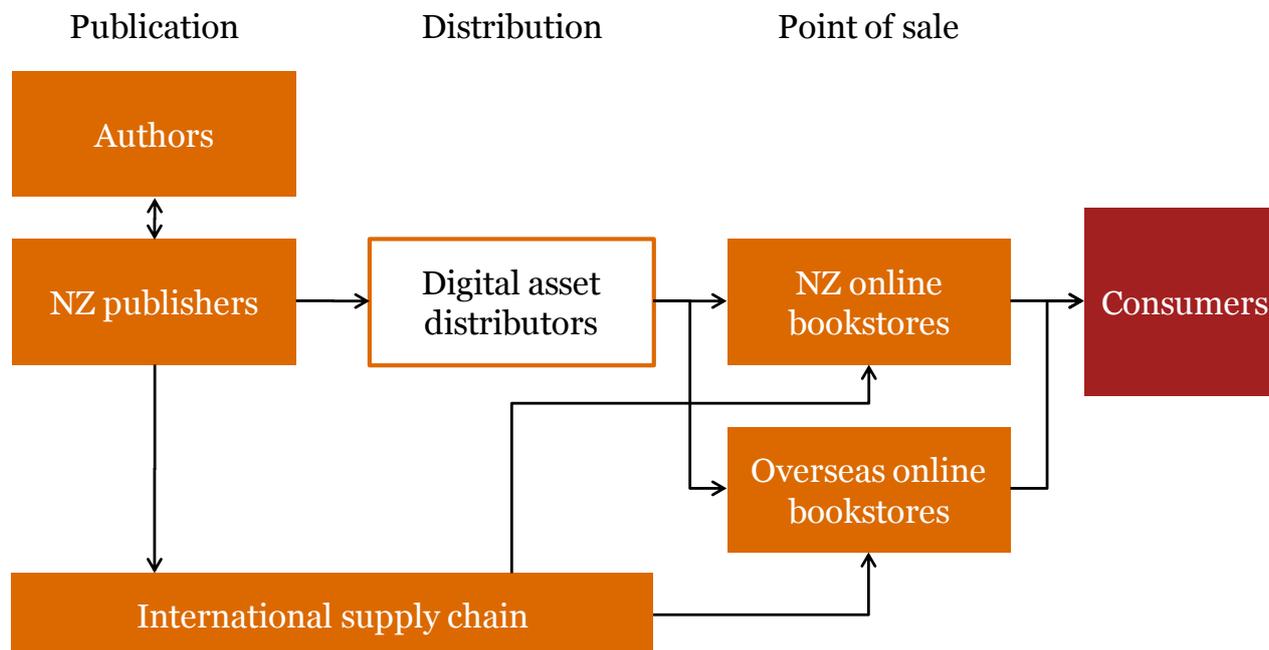
***Publishing value chain: Online retail of print books***



**Figure 3** presents the value chain for online retail of Ebooks, which is an emerging and fast-growing channel to market. The development of this value chain has been enabled by technological innovations – ie the development of usable and affordable Ebook readers and tablet computers. In this value chain, consumers purchase digital books from domestic and overseas online bookstores. These online bookstores source books – or rather, the right to distribute the intellectual property embodied in Ebooks directly from publishers or via digital asset distributors.

**Figure 3: Publishing value chain 3 – online retail of Ebooks**

### ***Publishing value chain: Online retail of ebooks***



#### ***What is not included?***

This report excludes activities that are related to the publishing industry but not exclusively devoted to the production of its main outputs, as well as some activities that are related to books more generally but not necessarily to the formal book industry.

This report excludes, for example, some other activities related to written materials:

- Publication, distribution, and sale of magazines, newspapers, and other periodicals
- Self-published books, as they do not relate directly to the publishing industry per se.

It also excludes activities occurring within libraries and educational institutions. While these activities often depend upon books, the publishing industry does not capture a large portion of the social value of these institutions.

#### ***Accounting for output innovation***

The New Zealand publishing industry is currently evolving in response to technological and economic changes. Publishers and booksellers are rapidly innovating, developing new services, products and distribution channels. The impact of these innovations is already being felt within the industry and among readers. However, official statistics and many other data sources often respond slowly to innovations. For example, the system of national accounts that Statistics New Zealand uses to classify and measure industry activity is typically updated every ten to twenty years.

As a result, accounting for economic impacts within a rapidly changing industry can be challenging, as the economic models used to understand the relationship between inputs and outputs in individual industries may lag behind major changes. Within this context, this report represents an attempt to capture the present state of a changing industry, and to provide a sound basis for accounting for future changes.

Later in this report, we discuss some of the opportunities available to improve the quality of information available on the publishing industry and monitor future changes.

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## *Definition of industry subsectors*

This study estimates the contribution to the economy from the entire value chain of the outputs outlined above – from the conception of an idea through to the viewing of its finished product. We examine five broad channels to market. Sales to the consumer through each of these channels will have implications up the publishing industry value chain – from wholesaling and distribution to publishing companies to printing to authors and other creative workers. In order to capture these activities, we have applied a multiplier analysis based on New Zealand-specific input-output tables published by Statistics New Zealand, which account for the relative role of activities happening within industries and inputs purchased from other industries.

## *Comparisons with other studies*

This report is intended to provide comparable measures of the publishing industry's impact on the New Zealand economy. The economic impact measures we have chosen and the analysis we have undertaken mean that our results can be compared with:

- economic impact studies of other New Zealand industries, including copyright industries
- similar studies of publishing and copyright industries undertaken overseas, including work by the World Intellectual Property Office and a recent PwC Australia report on the Australian book industry (*Cover to Cover*, 2011, a report for Australia's Department of Innovation, Industry, Science and Research)
- national-level GDP and employment statistics.

# Economic impact of the New Zealand publishing industry

In 2012, the New Zealand publishing industry as a whole had total sales of an estimated \$330 million. This is estimated to have directly generated \$160 million in GDP and 2,940 full-time equivalent jobs within the publishing and bookselling industry. After accounting for multiplier effects, the industry had an estimated total economic impact of \$382 million in GDP and 5,160 FTEs. This suggests that in addition to the activity occurring directly within the industry, publishing also supports a range of activities across other New Zealand industries.

Table 1 presents estimates for the economic impact of the New Zealand publishing industry, breaking out impacts across main channels to market. This presents a snapshot of outcomes at a single point in time, and as a result it does not provide a full indication of rapid changes to the market. These figures should be considered in light of information about trends in the market, as components of the industry that are currently relatively small, such as Ebook sales, will grow significantly.

Although its importance is declining due to the development of new products and channels to market, store-based retail still accounted for the bulk of the industry's total sales, GDP impacts, and employment impacts. In 2012 emerging channels to market, such as online sales of physical and Ebooks, were relatively small by comparison. However, these channels to market have experienced significant growth in 2013.

It is also important to consider the broader social and cultural role of sales to libraries and education institutions. In addition to the measurable economic impacts of this channel to market, libraries and schools make the books they purchase available to many users free of charge. Consequently, the publishing industry does not always internalise the full benefits to society of book sales to libraries and educational institutions. If library activities were accounted for, it is likely that our estimate of the size of the book industry would increase substantially. In 2012, the Library and Information Association of New Zealand Aotearoa (LIANZA) reported in its Public Library Statistics<sup>3</sup> that libraries employed 2,081 FTEs and paid \$120.8 million in salaries.

**Table 1: Direct and total economic impact of the NZ publishing industry, by channel to market**

Channel to market	Total sales	Value added (GDP)		Employment (FTEs)	
	(\$m)	Direct impact (\$m)	Total impact (\$m)	Direct impact	Total impact
Store-based sales of physical books	\$188m	\$99m	\$228m	2,250	3,540
Trade sales to libraries and educational institutions	\$15m	\$6m	\$15m	70	160
Online sales of physical books	\$6m	\$2m	\$6m	30	60
Educational publishing	\$64m	\$27m	\$68m	300	710
Ebook sales	\$9m	\$3m	\$8m	40	90
Other sales (rights sales, non-traditional sales)	\$49m	\$23m	\$57m	250	600
<b>Total</b>	<b>\$330m</b>	<b>\$160m</b>	<b>\$382m</b>	<b>2,940</b>	<b>5,160</b>

*PwC Calculations*

<sup>#</sup>These figures include impacts associated with sales to libraries and educational institutions, but do not include the impact of library employees

<sup>3</sup> Available online at <http://www.lianza.org.nz/resources/lianza-publications/public-library-statistics>

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# *Methodology and data sources*

## *Measures of Economic Impact*

This study measures the contributions of the publishing industry to the economy in three different ways:

- gross output (or gross revenue or total sales)
- value added (or GDP contribution)
- employment (or labour input).

This section further defines the economic measures by describing the manner in which they are applied to assess economic impact, and summarises the approach that we have taken to measuring or estimating them.

### *Gross output (or gross revenue or total sales)*

Gross output is the total value of goods and services provided by firms and individuals operating in the publishing industries. It is calculated based on the collective sales of all industry participants and expressed as a dollar amount.

In order to estimate total sales within the publishing industry, including sales through bookstores and through other channels, we used data from Nielsen BookScan, which surveys many (but not all) New Zealand booksellers, and additional data provided by New Zealand trade and educational publishers.

### *Value added (or GDP contribution)*

The value added by an industry is equal to the total value created within that industry. It is often described as the gross domestic product (GDP) contribution of an industry. GDP measures the contributions of labour (through wages and salaries) and capital (through profits and depreciation) to the output produced by an industry, as well as the taxes that it pays (less subsidies received). It can be calculated as the gross output of an industry less the value of all inputs purchased from other sectors. Value added is expressed as a dollar amount.

In order to estimate the GDP contribution of the publishing industry, we have used estimates of the relationship between value added and gross output within New Zealand industries based on input-output tables published by Statistics New Zealand. This data allows us to estimate the ratio of value added to gross output across different parts of the publishing industry.

### *Employment (or labour input)*

We measure employment on the basis of full-time equivalent jobs (FTEs), rather than total (full-time and part-time) jobs. This measure counts part-time jobs as a proportion of a full-time job and accounts for working proprietors and independent contractors. For example, a job that involves working half of a full work-week would be counted as 0.5 of an FTE. This provides us with the most comparable measure of employment in an industry, as rates of part-time employment and self-employment can vary between different industries.

In order to estimate FTE impacts in the publishing industry, we used ratios derived from multiplier tables based on Statistics New Zealand-published input-output tables and employment data. These ratios can be used to provide a broad estimate of the expected employment required to produce a given amount of output in different industry sectors. However, these estimates may fail to account for variations in labour inputs that are highly specific to individual industries. We note that the estimates of employment impact we have provided here have been checked against other publicly-available sources such as detailed industry-level employment statistics published by Statistics New Zealand, which suggests that these estimates are valid.

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## *Multiplier analysis*

This study estimates the contribution to the economy from the entire value chain of the outputs outlined above – from the conception of an idea through to the viewing of its finished product. We examine five broad channels to market. Sales to the consumer through each of these channels will have implications up the publishing industry value chain – from wholesaling and distribution to publishing companies to printing to authors and other creative workers. In order to capture these activities, we have applied a multiplier analysis based on New Zealand-specific input-output tables published by Statistics New Zealand, which account for the relative role of activities happening within industries and inputs purchased from other industries.

To estimate gross output, value added and employment for each sub-sector involved different calculations depending on the basis of the underlying data, the comparable industry within the national account reporting framework, as well as some technical adjustments for wholesale and retail components to reflect their different treatment in national input-output tables.

## *Direct, indirect and induced impacts*

In addition to its **direct** economic impacts, an industry will have **spillover** effects on other industries. In order to do business, firms must purchase inputs from other industries, while the wages, salaries, and profits that they pay will subsequently be spent elsewhere in the economy. These effects are typically placed into two categories.

**Indirect (or upstream) impacts** occur as a result of purchases of goods and services from other sectors. When a book is published, businesses within the publishing industry purchase a range of inputs: paper products, binding materials, machinery and instruments, rented real estate, etc.

Indirect impacts are typically estimated using Type 1 multipliers, which account for the first-round and indirect effect of purchases of goods and services by an industry.

**Induced (or downstream) impacts** occur as a result of the wages and salaries paid out by the publishing industry. When a writer or editor is paid, he or she will then spend some of that money on a range of goods and services, thereby stimulating further economic impact.

Induced impacts are typically estimated using Type 2 multipliers, which account for the consumption that is induced as a result of the wages, salaries, and profits paid by an industry.

We estimated the indirect and induced impacts of the New Zealand publishing industry using multiplier analysis based on the most recent available input-output tables for the New Zealand economy. The values that we used are summarised in Table 2. However, we note that in some cases, such as physical sales through brick-and-mortar stores, it was necessary to use additional information from Statistics New Zealand's 2012 *Annual Enterprise Survey* to estimate the relative contribution of booksellers and publishers. We also made some adjustments to multipliers for online sales of physical books and Ebooks to reflect our analysis of their more internationalised value chains.

**Table 2: Multipliers and ratios used to estimate publishing GDP and employment impacts**

Industry segment	Broad industry basis	Direct impact ratios			Total impact ratios	
		Retail margin to gross sales (if applicable)	Value added to gross sales	Employment to gross sales (FTEs per \$1m sales)	Value added direct to total impacts	Employment direct to total impacts
Physical books - booksellers	Other personal and household good retailing	0.45	0.59	20.0	2.13	1.33
Physical books - publishing	Cultural and recreational services	0.55	0.47	5.2	2.5	2.37
Online sales of physical books - sales and publishing	Cultural and recreational services	N/A	0.38	4.2	2.5	2.37
Libraries and educational institutions - sales and publishing	Cultural and recreational services	N/A	0.42	4.7	2.5	2.37
Ebook sales	Cultural and recreational services	N/A	0.38	4.2	2.5	2.37
Other sales channels (rights sales, non-traditional)	Cultural and recreational services	N/A	0.47	5.2	2.5	2.37

Source: Statistics New Zealand, PwC calculations

## Estimating direct economic impacts

We estimated the direct component of the publishing industry’s economic impact in terms of its contribution to gross output, value added, and employment as follows:

- We started with an estimate of the total sales in each channel to market based on Nielsen and information provided by publishers.
- We then chose a representative industry basis for each sector – for example, “Other personal and household good retailing” was used as a basis for accounting for GDP and FTE impacts in booksellers
- If required, we used information from Statistics New Zealand’s *Annual Enterprise Survey* to estimate retail margins. For example, we estimate that booksellers’ gross margins (the difference between the total value of retail sales and the wholesale cost to purchase goods for sale) were 45% of total sales.
- We then used data from national input-output tables based on Statistics New Zealand data to estimate the ratios of value added (GDP) to gross output (sales) and employment (FTEs) to gross output. We adjusted the ratios of employment to FTEs to account for the economy-wide inflation that occurred from 2007 to 2012.
- These ratios were then used to estimate direct value added and employment in each subsector.

## Estimating spillover impacts

As a result of indirect and induced impacts, every dollar that is spent directly in the publishing industry will also stimulate or support other types of economic activity. This is often described as the **multiplier effect** of spending.

Our estimates of the **total economic impact** of this industry therefore accounted for indirect and induced impacts. In order to make this estimate, we applied multipliers calculated using 2006/07 input-output tables for all New Zealand industries. These tables are the most recent available. Multipliers were available for gross output, value added, employment, and household income in these industries.

## Main quantitative data sources

Our estimates of the economic impact of the New Zealand publishing industry are based primarily upon the following sources of data:

- Data on trade publishing sales through some (but not all) main retail channels from Nielsen BookScan. The Nielsen data excludes Whitcoulls, which has a large market share in brick-and-mortar sales, and online retailer Fishpond, which is the main New Zealand-based online book retailer.
- Survey questionnaires sent to Publishers Association of New Zealand members to collect information on trade publishing revenues earned through sales channels not captured in Nielsen BookScan.

- Data on educational publishing revenues collected and published in Annear (2013), *Educational Publishing Export Programme: Export Growth Strategy (2013-2016)*, a report to the Publishers Association of New Zealand.
- Survey questionnaires sent to educational publishers to collect information on educational publishing revenues that are not captured in existing data collections<sup>4</sup>.
- Statistics New Zealand's *Annual Enterprise Survey 2012*.
- 2006/07 input-output tables and multipliers for all New Zealand industries, provided by Butcher Partners.

Where possible, other data was used to provide a sense check on estimates derived from these sources. In order to do so, we have drawn upon supplementary information from a range of sources, including but not necessary limited to:

- 2012 customs data on the value of book exports from Statistics NZ import and export tables
- Estimates of Ebooks sales from PwC Global Entertainment and Media Outlook.
- Estimates of employment from Statistics New Zealand Census occupational tables and Business Demography Statistics.
- Estimates of industry-level economic activity (GDP and employment) from PwC's proprietary Regional Industry Database.
- Royalties and acquisitions associated with libraries from the National Library and LIANZA respectively.

## **Reporting of results**

### **Values are in 2012 New Zealand dollars unless otherwise stated**

The 2012 calendar year (year ended December 2012) has been selected as the basis for the economic impact calculations because 2012 is the most recent full set of annual data available. All amounts in this report, then, relate to impacts that occur in this period.

Because this report is based on annual data, it provides a useful snapshot of the New Zealand publishing industry. However, it is necessary to consider that copyright and creative industries are constantly changing in response to technological, economic, and policy factors. Carrying out this study on an annual basis could help to provide a longer-term picture of the industry and support decision-making by both industry and government.

### **Estimates versus official statistics**

Our calculations are based on actual, officially published data wherever possible. However, a review of official statistics and other data available through Statistics New Zealand found that it was not fit for purpose for valuing the industry's contribution to the New Zealand economy, as it was neither timely enough to provide a fully robust picture of book sales nor fine-grained enough to be relevant to the publishing industry. In addition, published data on book sales across all channels to market was not readily available from industry sources such as Nielsen Bookscan.

Consequently, we refer to the results of our analysis as **estimates** to distinguish them from **official statistics** published by Statistics New Zealand. Likewise, we refer to our measures of the direct and total (indirect and induced) GDP impact and employment of the publishing industry as **estimates** due to the fact that they are calculated using national multipliers and ratios.

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<sup>4</sup> We received responses from six educational publishers. Annear (2013) received information from 22 educational publishers, including nine that were classified as "mature". Consequently, we have used data from Annear (2013) as it is more likely to be comprehensive.

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To the extent possible, we have checked our estimates against other data available on the industry. In order to validate our estimates of the publishing industry’s economic impact, we developed a range of alternative estimates based on data published by Statistics New Zealand and high-level assumptions discussed with industry participants. This alternative approach confirmed that the estimates reported here are reasonable and likely to be accurate.

# Improving the quality of data on the publishing industry

## Review of current state

While developing the analysis reported in this report, we undertook a review of the information that was readily available on the publishing industry and on book sales more generally. We concluded that this information was not well suited to conducting a reliable estimate of the state of the industry, as it excluded some important components of the industry such as Ebooks and educational publishing, and that it was unlikely to enable a robust understanding of future changes to the industry.

Table 3 shows the status of the information available on different components of the industry. While it provides some information, there are many gaps.

**Table 3: Publicly available information on the publishing industry**

Industry segment	Status of data	Value	Source
<b>Channels to market</b>			
Trade books <ul style="list-style-type: none"> <li>• Brick and mortar retail</li> <li>• Online retail</li> </ul>	2012 data available but incomplete – excludes Whitcoulls (59 stores nationwide) and Fishpond	Total: \$136.9m NZ books: \$36.1m	Nielsen BookScan
Trade books <ul style="list-style-type: none"> <li>• Ebooks</li> </ul>	No recent or reliable data available	2010 estimate: \$11m	PwC global Entertainment & Media Outlook
Educational books	No data available		
Exports	2012 Customs data on value of book exports available	\$24.3m (FOB value)	Statistics NZ import and export tables
<b>Upstream activities</b>			
Authors	2006 Census data on people occupied as Authors and Critics	1,689 authors and critics	Statistics NZ Census occupational tables
Editors	2006 Census data on people occupied as Editors	1,674 editors (+333 subeditors)	Statistics NZ Census occupational tables
Book publishers	2012 data on employment in book publishing available	810 people directly employed in 252 business units	Statistics NZ Business Demography Statistics
		828 FTEs, approximately \$26.9m GDP	PwC estimates based on Statistics NZ data
Book printers	2012 data on employment in printing and printing support	9,140 people directly employed in 1,335 business	Statistics NZ Business Demography Statistics

	services available	units	
		Only a fraction of printing employment related to book publishing	PwC estimates based on Statistics NZ data
Book imports	2012 Customs data on value of book imports available	\$172.1m (CIF value)	Statistics NZ import and export tables
Book wholesaling / distribution	2012 data on employment in Book and Magazine Wholesaling available	990 people directly employed in 135 business units	Statistics NZ Business Demography Statistics
		Not all related to book distribution – perhaps 673 FTEs, \$36.8m GDP	PwC estimates based on Statistics NZ data
Store-based book retailing	2012 data on employment in Newspaper and Book Retailing available	3,040 people directly employed in 642 business units	Statistics NZ Business Demography Statistics
		Not all related to book distribution – perhaps 1,853 FTEs, \$81.4m GDP	PwC estimates based on Statistics NZ data
Libraries	2012 data on PLR author royalties available	\$2m in royalties paid out to 1,699 authors	National Library
	2012 data on employment in Libraries and Archives available	4,630 people directly employed in 307 business units	Statistics NZ Business Demography Statistics
	2011/2012 data on the value of library acquisitions (primarily sourced from overseas; including but not limited to books)	\$38.2m in acquisition purchases	LIANZA

In short, there are some significant gaps in data availability. Data on sales through different channels to market was severely lacking, as it has not been systematically or comprehensively collected. This is partly due to commercial sensitivity concerns within the industry (eg with reporting to Nielsen BookScan or information-sharing by publishers) and partly due to technological changes (eg the rise of Ebooks).

As Table 4 shows, the most serious data gaps occur in the channels to market. Consequently, we recommend focusing on improving the quality and coverage of data on different channels to market.

**Table 4: Summary of information gaps**

Industry segment	Status of data	Options for improving data
Trade books <ul style="list-style-type: none"><li>• Brick and mortar retail</li><li>• Online retail</li></ul>	2012 data available but incomplete – excludes Whitcoulls (59 stores nationwide) and Fishpond	In the short term, estimates can be made based on overseas experience or qualitative information gathered from publishers.
Trade books <ul style="list-style-type: none"><li>• Ebooks</li></ul>	No recent or reliable data available	In the long term, more regular data collection and analysis is needed to track trends and understand emerging sources of value.
Educational books	No data available	
Exports	2012 Customs data on value of book exports available	

### ***Recommended approach for improving data***

On the basis of this information, we recommended that CLNZ and its industry partners survey trade and educational publishers to close the remaining information gaps. This was deemed to be the most cost-effective and easy-to-implement approach to gathering additional data to close the information gaps identified above.

Survey questionnaires were designed to minimise confidentiality issues associated with sharing commercially sensitive information, to be readily comprehensible to users, and to be reflective of the industry’s current state and emerging channels to market.

Trade publishers and educational publishers were surveyed separately. No data has been reported on individual publishers – all figures have been aggregated prior to use to avoid the potential for identifying individual businesses.

We recommend repeating this survey on an annual basis to update this report. It is expected that this survey form can be updated to reflect further innovations in the publishing industry. However, comparability with past figures should be maintained where possible.

**Figure 4: Survey form sent to New Zealand trade publishers**

**Copyright Licensing New Zealand / Publishers Association of New Zealand  
Collection of Revenue Data from NZ Trade Publishers**

Revenue category	% of total revenue
% of NZ sales of physical books via Nielsen	<input type="text"/>
% of NZ sales of physical books via Fishpond	<input type="text"/>
% of NZ sales of physical books via Whitcoulls	<input type="text"/>
% of NZ sales of physical books to libraries	<input type="text"/>
% of NZ sales of physical books to education institutions	<input type="text"/>
% of NZ sales of physical books via non-traditional retailers or other channels	<input type="text"/>
% of income from other sources e.g. rights sales, licensing, co-publishing etc	<input type="text"/>
% sales of eBooks	<input type="text"/>
<b>TOTAL (should equal 100%)</b>	<input type="text" value="0"/>
Period the above figures relate to	Start month      End month <input type="text" value="e.g. Jan 2012 to Dec 2012"/>

**Figure 5: Survey form sent to New Zealand educational publishers**

**Copyright Licensing New Zealand / Publishers Association of New Zealand  
Collection of Revenue Data from NZ Education Publishers**

Total Sales Revenue from sales of NZ titles	A	\$ <input type="text"/>
Total Sales Revenue from NZ sales of overseas titles	B	<input type="text"/>
Total other revenue (e.g. rights sales, export revenue)	C	<input type="text"/>
Total Annual Revenue for the period	A + B + C	<input type="text" value="0"/>
Period the above figures relate to	Start month      End month <input type="text" value="e.g. Jan 2012 to Dec 2012"/>	

## Glossary

Downstream impacts	See <i>Induced impacts</i>
Full-time equivalents (FTEs)	A measure of employment that allows comparison of total labour inputs across different industries. It takes into account the casual / part-time nature of some industries such as hospitality relative to industries where full-time employment is more common such as manufacturing. It also accounts for independent contractors and working proprietors.
GDP	<p>Gross Domestic Product, which is the market value of all final goods and services produced within a defined area in a given period. It is equivalent to the value of the wages, salaries, profits, and taxes paid out in the defined area – ie the value added by the main factors of production. In this report, the area of analysis is the whole of New Zealand.</p> <p>It is also referred to as “value added” in this report.</p>
Gross output	<p>Refers to the total revenue earned by a set of businesses. It includes the value of wages, salaries, profits, and taxes paid by the businesses as well as the value of the intermediate inputs they purchased from other firms. It is a “top-line” rather than “bottom-line” measure as it does not measure firms’ net economic contribution.</p> <p>Gross output is also described as “total sales” or “gross revenue”.</p>
Indirect impacts	<p>The impacts on supplier industries that result from direct economic activity in the industry being studied. For instance, a new sawmill operation will require inputs from log producers, machinery manufacturers, energy providers and imported products. As the sawmill pays for these inputs into its operation, it also generates economic activity (jobs and GDP) at those suppliers. The same basic principle holds for the publishing industry as a whole.</p> <p>These are sometimes referred to as “upstream” or “Type I” multiplier impacts.</p>
Induced impacts	<p>The impacts on the economy as workers in the industry being examined, and in supplier industries, spend their wages in the economy. For instance, workers at a new sawmill and at the forestry operation that supplies the sawmill spend their wages at supermarkets, petrol stations and movie tickets, generating employment there. The same basic principle holds for the publishing industry as a whole.</p> <p>These are sometimes referred to as “downstream” or “Type II” multiplier impacts.</p>
Input-output tables/analysis	A quantitative economic technique that represents the interdependencies between different components of the economy in matrix form. It shows how the output of one industry is an input to each other industry. Multipliers are derived from input-output tables.
Multipliers	A factor of proportionality that measures how much one variable changes in response to a change in some other variable. In the case of input-output analysis, multipliers measure the ratio of total employment and GDP to direct employment and GDP. For instance, a GDP multiplier of 3.4 means that for every \$1.00 of direct GDP generated by an industry, an additional \$2.40 of GDP is supported across other industries as a result of indirect and induced impacts. This would result in an estimated total economic impact of \$3.40.
Retail margin	Retail and wholesale trade businesses typically purchase finished goods from other sector for resale. The retail margin for an individual retail business is equivalent to the total sales (or gross output) of the business, less the value of goods purchased for resale. Estimates of retail margin have been used to focus on the direct economic contribution of booksellers as distinct from publishers.
Upstream impacts	See <i>Indirect impacts</i>
Value added	See <i>GDP</i> .

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# *Appendix: Restrictions*

This economic impact assessment has been commissioned by Copyright Licensing New Zealand and has been prepared solely for the purpose described in the introduction on page 4 and should not be relied upon for any other purpose.

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Our report has been prepared with care and diligence and the statements and opinions in the report are given in good faith and in the belief on reasonable grounds that such statements and opinions are not false or misleading. In preparing our report, we have relied on the data and information provided by members of the sponsor group as being complete and accurate at the time it was given. The views expressed in this report represent our independent consideration and assessment of the information provided.

No responsibility arising in any way for errors or omissions (including responsibility to any person for negligence) is assumed by us or any of our partners or employees for the preparation of the report to the extent that such errors or omissions result from our reasonable reliance on information provided by others or assumptions disclosed in the report or assumptions reasonably taken as implicit.

We reserve the right, but are under no obligation, to revise or amend our report if any additional information (particularly as regards the assumptions we have relied upon) which exists at the date of our report, but was not drawn to our attention during its preparation, subsequently comes to light.

This report is issued pursuant to the terms and conditions set out in our letter of engagement dated 11 July 2013.