Economic contribution of the New Zealand music industry in 2018

A report for Recorded Music New Zealand

December 2019

pwc

Damian Vaughan
Chief Executive
Recorded Music New Zealand
Private Bag 78 850
Grey Lynn
Auckland 1245

19 December 2019

Economic contribution of the New Zealand music industry in 2018

Dear Damian,

We are pleased to provide our report on the economic contribution of the New Zealand music industry in 2018.

This report is provided in accordance with the terms of our engagement dated 23 July 2019, and is subject to the Restrictions set out in Appendix C.

If you have any queries please do not hesitate to contact us.

Yours sincerely

Mark Robinson
Director
mark.d.robinson@pwc.com
021 665 786

Craig Rice
Partner
craig.rice@pwc.com
021 624 462

Contents

Executive Summary

2018 was another successful year for the New Zealand music industry, building on 2017's strong results. The significant increase in annual economic contribution was primarily driven by a good year for live music, as well as continued growth in streaming revenues.

2018 economic growth contribution estimate

We estimate that the New Zealand music industry directly contributed $336m to the national gross domestic product (GDP), and $731m in total (after accounting for multiplier effects).

We also estimate the industry directly contributed around 3,000 full-time equivalent (FTE) jobs, and over 6,300 FTEs in total.

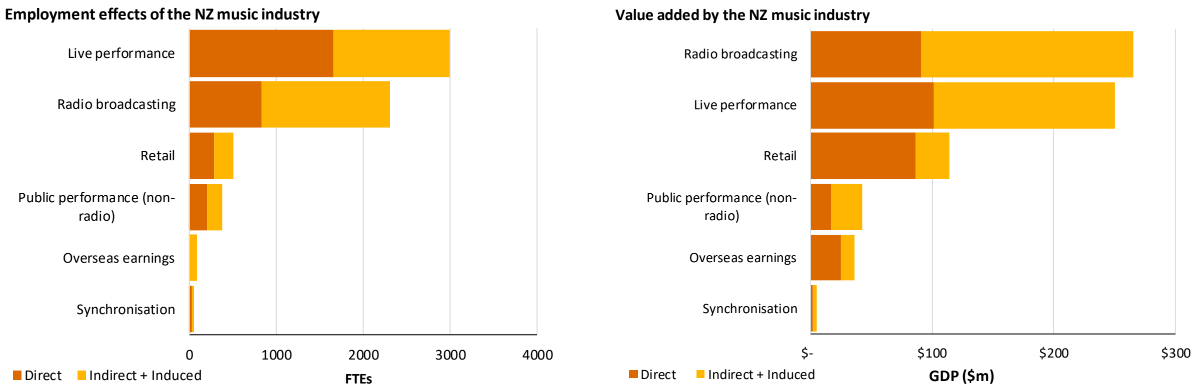
Table 1. Estimate of overall economic contribution of the music industry in New Zealand, 2018

Industry sector	Total sales ($m)	Value added (GDP, $m)		Employment (FTEs)	
		Direct impact	Total impact	Direct impact	Total impact
Retail	135	87	115	282	502
Physical music	*18*	*13*	*20*	*82*	*139*
Downloads	*9*	*6*	*8*	*16*	*29*
Online Streaming	*108*	*67*	*87*	*185*	*334*
Public performance (non-radio)	52	17	42	207	374
Radio broadcasting	228	91	265	831	2,314
Live performance	188	101	251	1,653	2,992
Synchronisation	4	2	5	28	50
Overseas earnings	37	37	53	-	137
Total	**644**	**336**	**731**	**3,001**	**6,370**

Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

Radio broadcasting is the largest subsector by GDP impact, with 36% of the total. But live performance had the highest employment contribution in 2018, with 47% of the total, and was a close second in terms of GDP impact. Retail is the third largest sub-sector, making a significant GDP contribution but a lower employment impact.

Figure 1. Estimate of overall economic contribution of the music industry in New Zealand, 2018

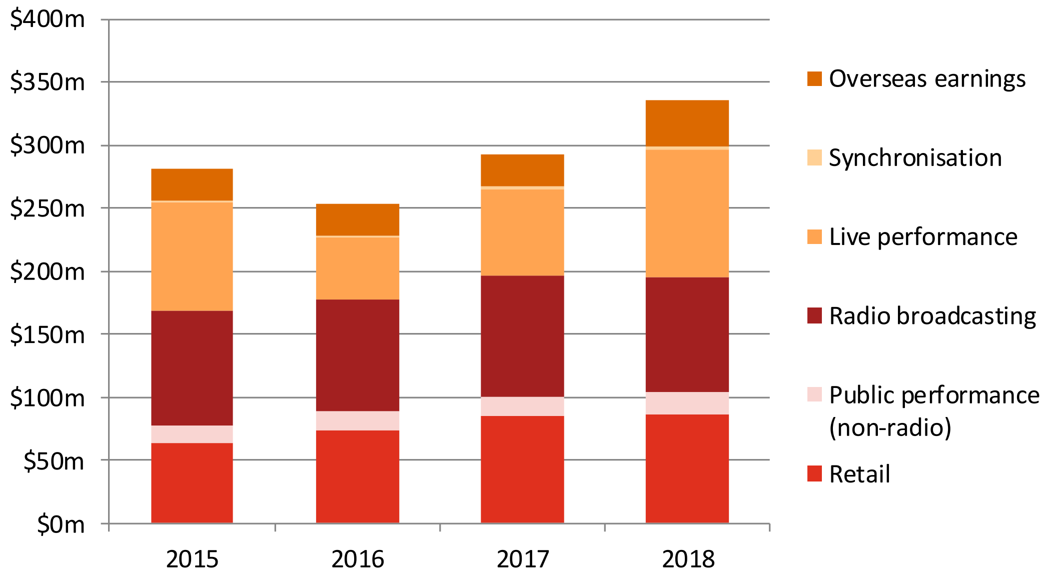


Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

Overall trends over time

Our estimate of the music industry's economic contribution increased in 2018, continuing the upward trend from 2016. This was primarily driven by another strong year for live performances, and continued growth in streaming.

Figure 2. Composition of direct GDP contribution, 2015-2018

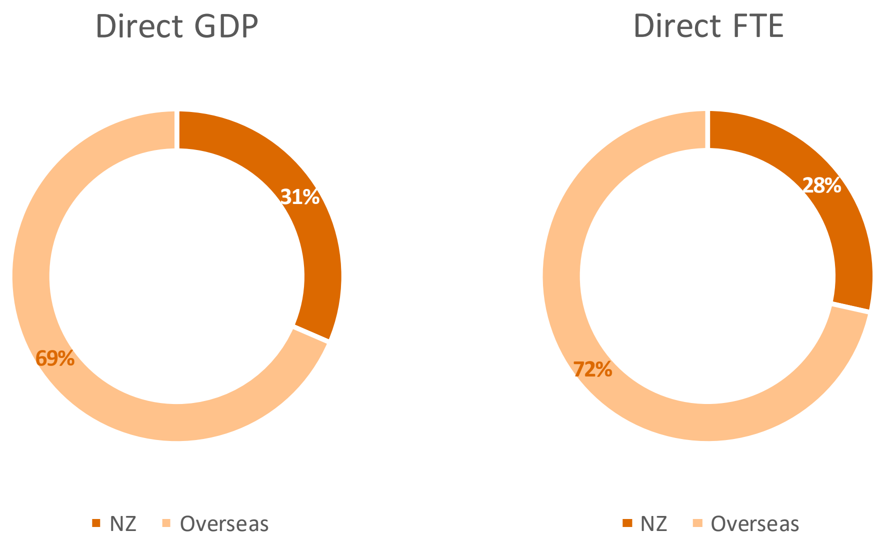


Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

New Zealand generated content

New Zealand generated content accounts for approximately 30% of the economic contribution of the New Zealand music industry. While this is slightly higher than previous years, overseas content continues to account for the majority of the contribution.

Figure 3. Share of direct GDP and employment from New Zealand generated content, 2018

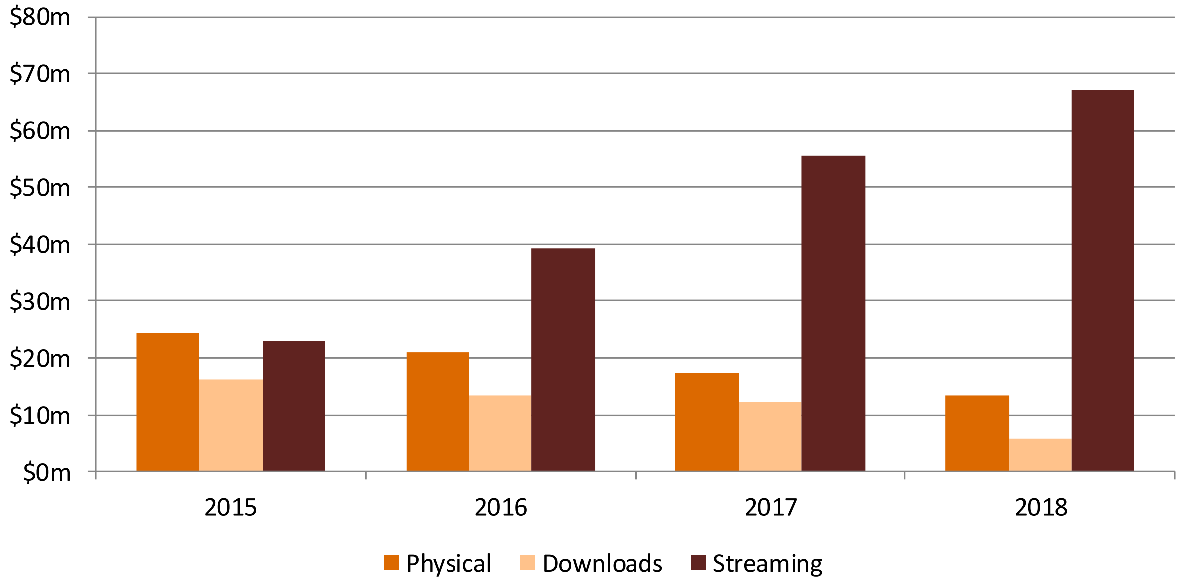


Source: Industry-provided data, PwC analysis

Retail consumption channels

Revenues for traditional physical music retail continued the decline that has been evident for a number of years. The physical sales reduction has been offset by the growth of online streaming, which has grown rapidly over the past three years and now accounts for 78% of retail output. Streaming has largely replaced downloads as the main alternative to physical retail consumption.

Figure 4. Retail direct GDP contribution, by retail channel, 2015-2018

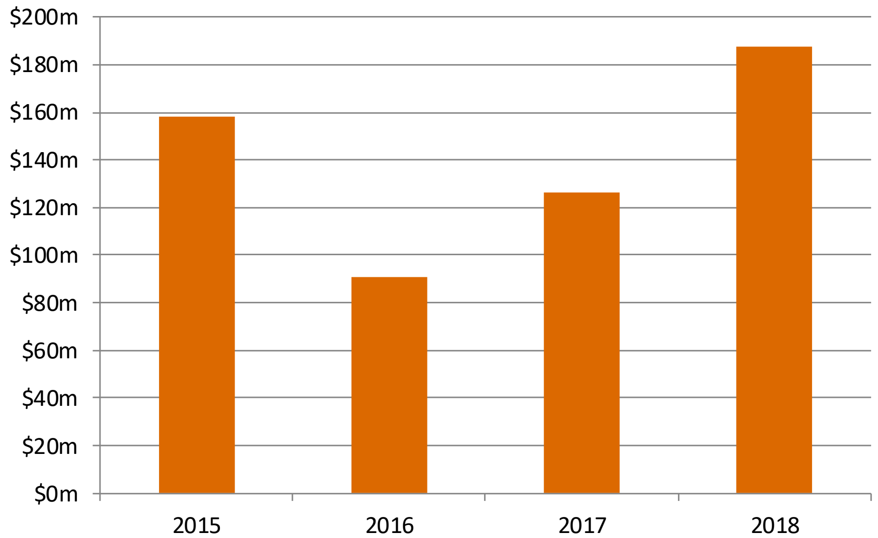


Source: Industry-provided data, PwC analysis

Live performance trends

Revenues from live performance fluctuate from one year to the next based on different touring schedules. 2018 has been the strongest ever recorded year for live performance revenue in New Zealand.

Figure 5. Total sales from live performance, 2015-2018



Source: Industry-provided data, PwC analysis

Wider impacts

Although this report focuses on estimating the contribution of the music industry in New Zealand to employment and GDP, we emphasise that the industry has a broader cultural and social role to play. Music contributes to New Zealand in a number of other ways that are not measured by GDP. The enjoyment, or utility, that New Zealanders derive from consuming and producing music is likely to be considerable but is not easily quantified.

1. Introduction

This report presents estimates of the contribution of the music industry to the New Zealand economy. It provides a snapshot of the industry using data for the 2018 calendar year.

In addition, the report provides some broad insights on the trends occurring in New Zealand's music industry that are affecting the impact of the industry on New Zealand's economy.

This report has been commissioned by Recorded Music New Zealand (Recorded Music NZ) supported by funding from its project partners, the Australasian Performing Right Association Australasian Mechanical Copyright Owners Society (APRA AMCOS) and the New Zealand Music Commission.

This report presents estimates of the industry's overall contribution to New Zealand's GDP and employment, as well as estimates across the five main subsectors of the industry:

- retail
- public performance (non-radio)
- radio broadcasting
- live performance
- synchronisation.

We also report estimated overseas earnings as a separate subsector, comprising income from overseas live performance and recordings and publishing. Our analysis of these earnings is outlined in a separate report[1].

[1] PwC (December 2019), Overseas earnings of the New Zealand music industry 2018.

2. Approach

Purpose and scope of report

This report examines some ‘bottom-line’ measures of the music industry’s impact on the national economy. In this respect, it differs from other analyses that focus on the total revenue earned by the industry (eg sales of recorded music or royalties related to communication rights), a ‘top-line’ measure that does not account for factors such as intermediate inputs purchased from other industries or imported from overseas.

By estimating bottom-line measures, this report enables comparisons between the music 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 the industry to the New Zealand economy.

We have estimated three measures of the music industry in New Zealand’s economic contribution:

- **total sales** – the gross output of all music industry participants, provided by industry bodies
- **value added** – the industry’s contribution to New Zealand’s GDP, which is calculated as the total returns to labour and capital in the industry
- **employment** – the number of full-time equivalent staff (FTEs) employed as a result of music industry activity.

In addition to its direct economic impacts, an industry will have multiplier effects elsewhere in the economy. In order to do business, firms must purchase inputs from other industries, while the wages and salaries 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 music industry purchase goods and services from other industries in order to record and produce a song, market an album, or put on a concert.
- **Induced impacts** are generated when the wages and salaries paid out by the music industry are spent on goods and services, thereby stimulating further economic activity.[2]

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 music industry in New Zealand, we have used multiplier analysis based on national input-output tables.[3] We have described our application of multiplier analysis in Appendix B.

We note that economic impact, and GDP contribution, is not the same thing as ‘benefit’ as would be used in a cost-benefit analysis. While there are methodological similarities, there are a number of differences.

Although this report focuses on estimating the contribution of the music industry in New Zealand to employment and GDP, we emphasise that the industry has a broader cultural and social role to play. Music contributes to New Zealand in a number of other ways that are not measured in GDP. The enjoyment, or utility, that New Zealanders derive from consuming and producing music is likely to be considerable but is not easily quantified. We have not included these effects in our analysis.

---

[2] We note that there is considerable discussion in economics over the inclusion of induced impacts. We have included induced impacts in order to calculate the total economic impact of recorded music.
[3] Butcher Partners (2013), New Zealand 2013 Input-Output Table and Multipliers, based on Statistics New Zealand data.

Defining the music industry

This report defines the music industry in New Zealand as activities related to the creation, production, distribution, sale, communication and performance of music in New Zealand, regardless of country of origin.

Industry basis

The music industry incorporates a number of distinct activities and related revenue streams. This report seeks to account for this complexity and report its conclusions in a usable and accessible format.

One way to define the music industry is presented in Figure 6 overleaf.

This study examines the main revenue streams accruing to the industry. These include both sales revenue and royalty payments for the use of music:

- Physical and digital retail sales of music, including traditional store-based retailing, online stores, and the recently introduced payments received for access to music via on-demand streaming services. We refer to this subsector as **retail**.
- Revenue from communication of music played on radio, television, and the internet, and for the public performance of music in premises such as but not limited to retailers, hospitality outlets (bars and cafes), educational institutions, and gyms. We refer to this subsector as **public performance**. Given the size of the radio component of communication and public performance we have included that component separately in our reported tables as **radio broadcasting**.
- Live performances of music, whether in concerts, festivals, or music venues. We refer to this subsector as **live performance**.
- Royalties earned from licensing music for use in advertisements, games, films, and television programmes. We refer to this subsector as **synchronisation**.
- We also include the export revenue earned by New Zealand musicians. This is revenue earned outside New Zealand for live performances overseas, and recordings and publishing overseas. We refer to this subsector as **overseas earnings**.

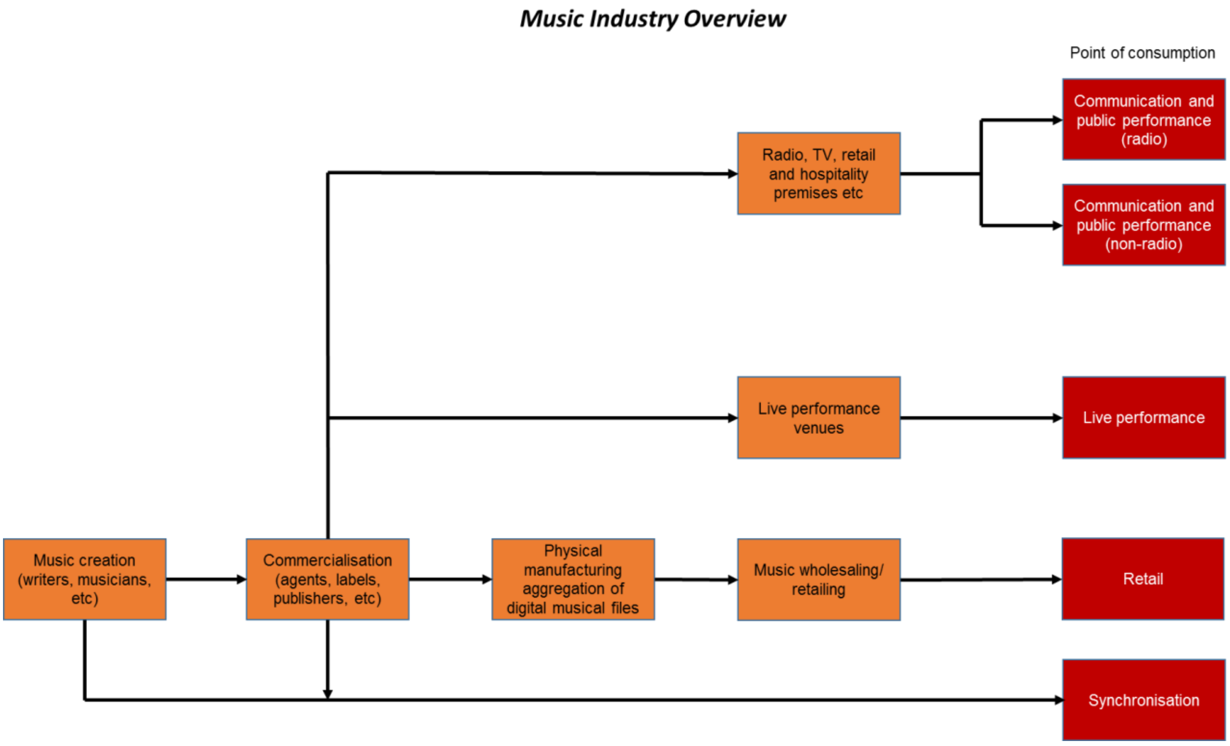
These revenue streams are all associated with the consumption of music in different forms or through different channels. But before music can be brought to the consumer, it must be created, commercialised, manufactured, and distributed. Some of these activities are considered to be part of the core music industry, while others are defined as intermediate inputs purchased from other industries.

The following upstream activities are included in our definition of the music industry:

- music creation, including songwriters, musicians, recording studios, etc
- the activities of record companies and music publishing companies, including the recording and commercialisation of music
- the manufacture of physical carriers of music (eg CDs, DVDs) and the aggregation of digital music files for retail
- venue operation for live performances.

Our definition of the core music industry excludes some related industries, such as instrument manufacture and retailing as well as music teaching. Where activities in these industries support the production or consumption of music in New Zealand, we are likely to capture the multiplier effects (as discussed below).

Figure 6. Defining the music industry



Music expenditures also have an economic impact on other industries. As we have described above, businesses in the music industry must purchase inputs from other industries, while the wages and salaries that they pay will subsequently be spent elsewhere in the economy. Consequently, the total impact of the music industry will include:

- purchases of intermediate inputs from sectors that are not directly linked to music, such as advertising and marketing, transport services, plastics manufacturing (such as for CDs), accounting and legal services, sound and lighting, and equipment hire
- additional consumer spending in other industries, such as food and beverage retailing, housing, and recreation, resulting from employment within the music industry and supplier industries.

Geographic boundary

This report aims to account for all economic impacts that take place in New Zealand. In order to do so, we have adopted an approach that is consistent with the national accounts statistics produced by Statistics New Zealand. As we discuss in more detail in Appendix B, this approach measures the total value of goods and services produced in New Zealand, rather than the net income of all businesses and individuals located within New Zealand.

In other words, we account for the domestic consumption of music of any origin from New Zealand-based channels. For instance, our measures of economic impact will:

- include activities related to the physical sale of overseas-originated music to a consumer in New Zealand, but exclude the (relatively minor) cost of importing the physical product.
- include income earned by overseas musicians touring New Zealand, as it was earned in New Zealand regardless of whether it is ultimately repatriated elsewhere.

Consistent with our 2017 report, we include payments made to New Zealand recording artists and songwriters from overseas sources. Recent changes to Statistics New Zealand's approach to calculating GDP means that royalties are treated as export revenue, and for the purposes of this study are pure value-add in our analysis.

Bottom line measures of economic impact

We have chosen to use a GDP measure, rather than revenue or an alternative measure that accounts for such inclusions and exclusions, for two reasons. First, GDP impact is the most commonly used measure of total economic impact. It is used by Statistics New Zealand when reporting on the size of the New Zealand economy and in many other economic impact studies. Second, it eliminates the impact of double counting, which is particularly problematic in industries where there are multiple steps before a good is purchased for final consumption.

Treatment of the economic effects of illegal music use

The illegal use of music is beyond the scope of this report. Discussions with industry stakeholders have indicated that it is a significant challenge facing the industry, which has had a significant economic effect.

This report is intended to provide a snapshot of the industry's actual economic impact at a point in time and as a result does not discuss revenue foregone due to the illegal use of music.

3. Economic contribution of the music industry in New Zealand

This section summarises the direct and total economic impact of the music industry in New Zealand. It estimates the industry's overall contribution to New Zealand's GDP and employment and allocates economic impacts between the five main subsectors of the industry: retail, communication and public performance, music radio broadcasting, live performance and synchronisation.

We also report overseas earnings as a separate subsector. This comprises income from overseas live performance and recordings and publishing overseas.

The subsequent sections provide further detail on each subsector.

Overall industry

The tables below summarise our estimates of the overall economic impact of the music industry in New Zealand.

Table 2. Estimate of overall economic contribution of the music industry in New Zealand, 2018

Industry sector	Total sales ($m)	Value added (GDP, $m)			Employment (FTEs)		
		Direct impact	Indirect + Induced	Total impact	Direct impact	Indirect + Induced	Total impact
Retail	135	87	28	115	282	220	502
Physical music	*18*	*13*	*7*	*20*	*82*	*57*	*139*
Downloads	*9*	*6*	*2*	*8*	*16*	*13*	*29*
Online Streaming	*108*	*67*	*19*	*87*	*185*	*150*	*334*
Public performance (non-radio)	52	17	25	42	207	167	374
Radio broadcasting	228	91	174	265	831	1,483	2,314
Live performance	188	101	149	251	1,653	1,339	2,992
Synchronisation	4	2	3	5	28	22	50
Overseas earnings	37	37	16	53	-	137	137
Total	**644**	**336**	**395**	**731**	**3,001**	**3,369**	**6,370**

Source: Industry-provided data, PwC analysis

Note: Overseas earnings are an average over 2016-18.

The main findings of the study are that in 2018:

- The music industry in New Zealand directly added $336m to national GDP and provided the equivalent of approximately 3,000 FTEs.
- The total economic impact of the music industry in New Zealand includes direct, indirect, and induced (ie spending supported by the wages paid by the music industry) impacts. In total, the New Zealand music industry contributed $731m to national GDP and supported 6,370 FTEs.
- Radio broadcasting is the largest subsector by GDP impact, with 36% of the total. But live performance had the highest employment contribution in 2018, with 47% of the total, and was a close second in terms of GDP impact. Retail is the third largest sub-sector, making a significant GDP contribution but a lower employment impact.

Table 3. Percentage impacts by sub-sector, 2018

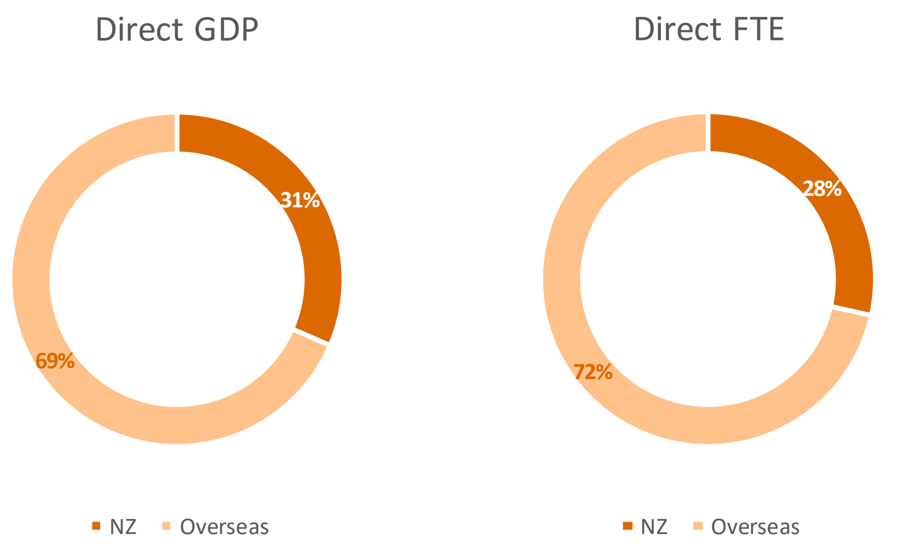
Industry sector	Total sales ($m)	Value added (GDP, $m)		Employment (FTEs)	
		Direct impact	Total impact	Direct impact	Total impact
Retail	21%	26%	16%	9%	8%
Public performance (non-radio)	8%	5%	6%	7%	6%
Radio broadcasting	35%	27%	36%	28%	36%
Live performance	29%	30%	34%	55%	47%
Synchronisation	1%	1%	1%	1%	1%
Overseas earnings	6%	11%	7%	-	2%
Total	100%	100%	100%	100%	100%

Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

Split between New Zealand and offshore generated content

- In 2018, approximately 31% of the direct contribution to New Zealand's GDP and 28% of the direct contribution to employment was derived from New Zealand generated content.
- This is equivalent to a direct impact of $106m and 855 FTEs from New Zealand generated content. After taking into account indirect and induced impacts, New Zealand content contributed $228m to national GDP and supported 1,842 FTEs.

Figure 7. Share of direct GDP and employment from New Zealand generated content, 2018



Source: Industry-provided data, PwC analysis

Table 4. Estimated contribution from New Zealand generated content, 2018

Industry sector	Total sales ($m)	Value added (GDP, $m)			Employment (FTEs)		
		Direct impact	Indirect + Induced	Total impact	Direct impact	Indirect + Induced	Total impact
Retail	12	8	10	18	78	62	140
Physical music	*3*	*2*	*1*	*3*	*12*	*8*	*20*
Downloads	*1*	*0*	*1*	*1*	*5*	*4*	*10*
Online Streaming	*9*	*6*	*8*	*14*	*61*	*49*	*110*
Public performance (non-radio)	14	13	19	31	133	108	241
Radio broadcasting	45	18	34	52	162	290	452
Live performance	53	28	42	70	463	375	838
Synchronisation	2	2	2	4	19	15	34
Overseas earnings	37	37	16	53	-	137	137
Total	**162**	**106**	**123**	**228**	**855**	**987**	**1,842**

Source: Industry-provided data, PwC analysis

Note: Overseas earnings are an average over 2016-18.

Table 5. Estimated contribution from overseas generated content, 2018

Industry sector	Total sales ($m)	Value added (GDP, $m)			Employment (FTEs)		
		Direct impact	Indirect + Induced	Total impact	Direct impact	Indirect + Induced	Total impact
Retail	122	78	18	96	204	158	362
Physical music	*15*	*12*	*6*	*17*	*70*	*49*	*119*
Downloads	*9*	*5*	*1*	*6*	*11*	*9*	*20*
Online Streaming	*99*	*62*	*11*	*73*	*124*	*100*	*224*
Public performance (non-radio)	39	5	7	11	74	60	134
Radio broadcasting	183	73	140	213	668	1,193	1,861
Live performance	135	73	107	180	1,190	964	2,154
Synchronisation	2	1	1	1	9	7	16
Overseas earnings	-	-	-	-	-	-	-
Total	**482**	**230**	**273**	**503**	**2,146**	**2,382**	**4,528**

Source: Industry-provided data, PwC analysis

Trends over time

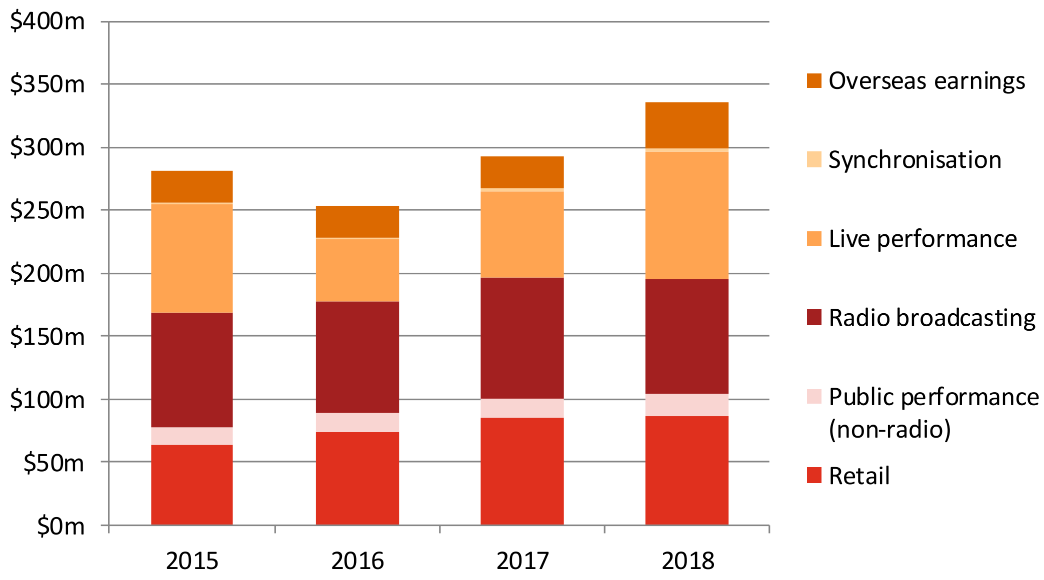
- The industry's GDP and employment contributions have increased between 2016 and 2018, after a decrease between 2015 and 2016.
- The largest component of the higher industry contribution in 2018 compared to 2017 was live performance earnings. However as noted earlier, revenues from live performance fluctuate from one year to the next based on different touring schedules, and could be lower in 2019 depending what tours are scheduled.
- Another driver of the increase is revenues from streaming, which have grown steadily over time, more than offsetting declines in other areas of retail, leading to increases in overall retail spend.

Table 6. Estimated economic contribution, 2015-2018

Economic impacts								
	Direct				Total			
Industry segment	2015	2016	2017	2018	2015	2016	2017	2018
Retail								
Value added (GDP)	$63m	$74m	$85m	$87m	$87m	$99m	$112m	$115m
Employment (FTEs)	268	276	288	282	468	485	509	502
Public performance (non-radio)								
Value added (GDP)	$14m	$15m	$16m	$17m	$36m	$36m	$39m	$42m
Employment (FTEs)	183	185	194	207	331	335	350	374
Radio broadcasting								
Value added (GDP)	$91m	$89m	$96m	$91m	$265m	$258m	$279m	$265m
Employment (FTEs)	870	837	891	831	2,424	2,331	2,481	2,314
Live performance								
Value added (GDP)	$85m	$49m	$68m	$101m	$211m	$121m	$168m	$251m
Employment (FTEs)	1,459	826	1,132	1,653	2,641	1,495	2,050	2,992
Synchronisation								
Value added (GDP)	$2m	$2m	$2m	$2m	$5m	$5m	$5m	$5m
Employment (FTEs)	29	29	28	28	52	52	51	50
Overseas earnings								
Value added (GDP)	$25m	$25m	$25m	$37m	$36m	$36m	$36m	$53m
Employment (FTEs)	0	0	0	0	94	94	94	137
Total								
Value added (GDP)	**$282m**	**$254m**	**$292m**	**$336m**	**$640m**	**$555m**	**$639m**	**$731m**
Employment (FTEs)	**2,809**	**2,152**	**2,533**	**3,001**	**6,009**	**4,791**	**5,535**	**6,370**

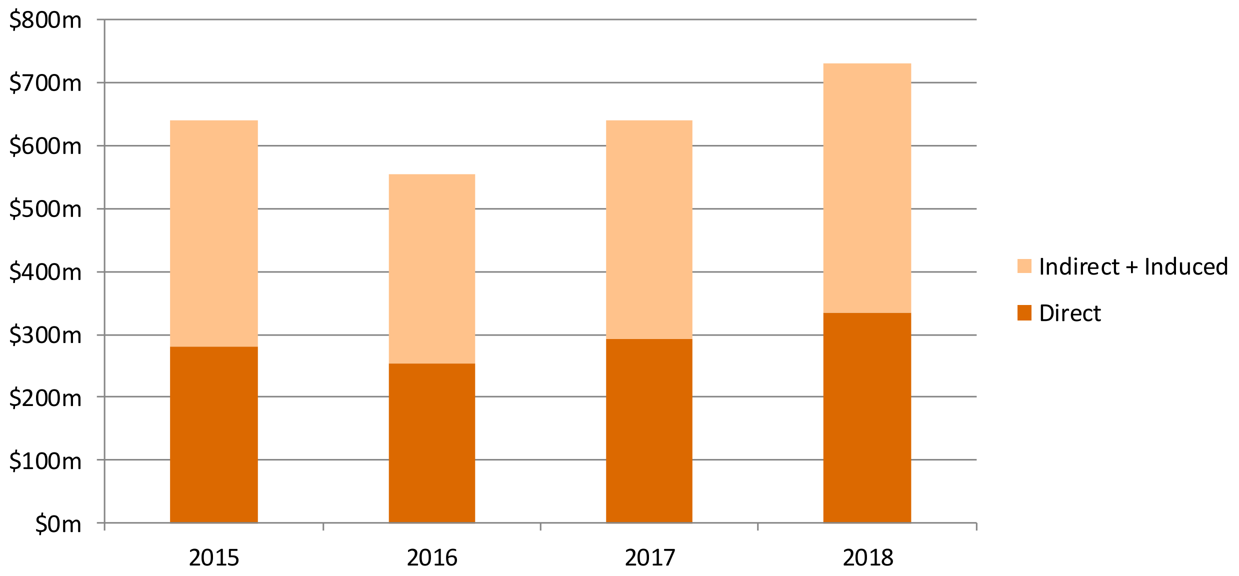
Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

Figure 8. Composition of direct GDP contribution, 2015-2018



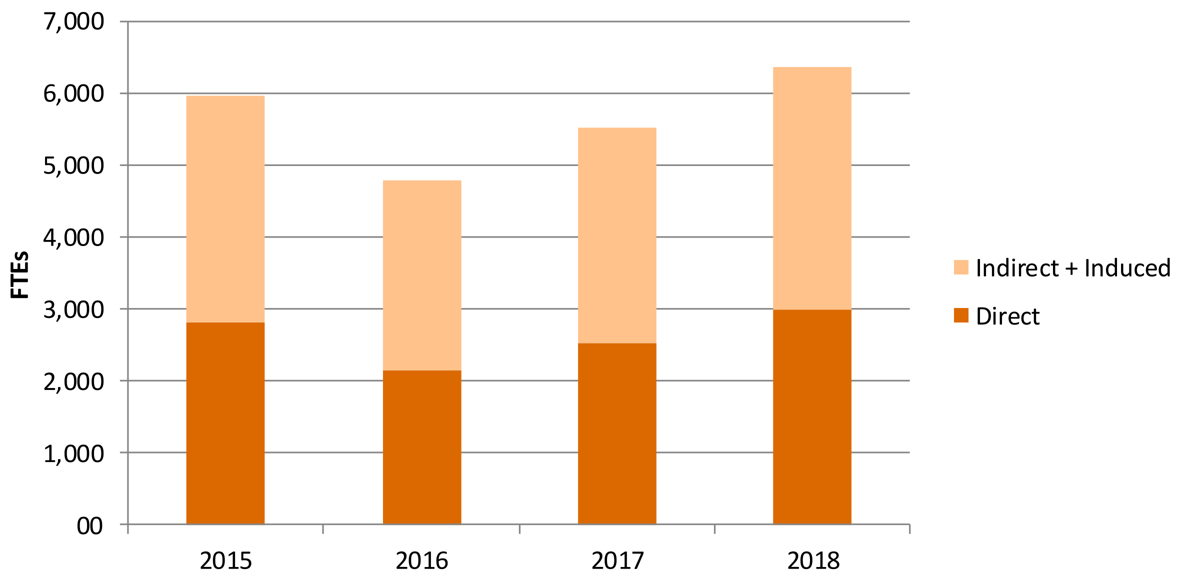
Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

Figure 9. Composition of total GDP impact, 2015-18



Source: Industry-provided data, PwC analysis

Figure 10. Composition of total employment impact, 2015-2018



Source: Industry-provided data, PwC analysis

The methodology that underpins these estimates is outlined in Appendix B.

Comparison to other sectors

We shed light on the relative size of the music sector in New Zealand by comparing it to other sectors, including some in the creative space and related to recreational activities. Table 7 presents GDP and employment estimates for a number of other New Zealand sectors, which have been recently published.

Table 7. Estimated GDP and employment contributions for other sectors

Sector	Direct GDP	Direct FTEs	Study
Music	$336m	3,001	PwC, 2019
Architecture	$436m	5,350	PwC, 2017
Design	$10,098m	94,200	PwC, 2017
Cruise ships	$310m	5,330	Market Economics, 2013
Tourism	$13,500m	224,000	World Travel & Tourism Council, 2017
Agriculture	$8,100m		StatsNZ, 2015
Wine	$1,092m	7,580	NZIER, 2015
Commercial fishing	$550m	4,394	BERL, 2017

4. Music retail

The New Zealand retail music sector posted its fourth consecutive year of growth in 2018, earning $135m in retail revenues.

We estimate that these gross revenues resulted in a direct impact on the New Zealand economy of $87m in GDP and 282 FTEs within the music industry. After accounting for multiplier effects, the retail subsector had a total economic impact of $115m and 502 FTEs.

New Zealand music contributed a small but significant share of total value within the retail subsector accounting for approximately 9% of gross output.

Table 8. Estimated economic contribution through retail channels, 2018

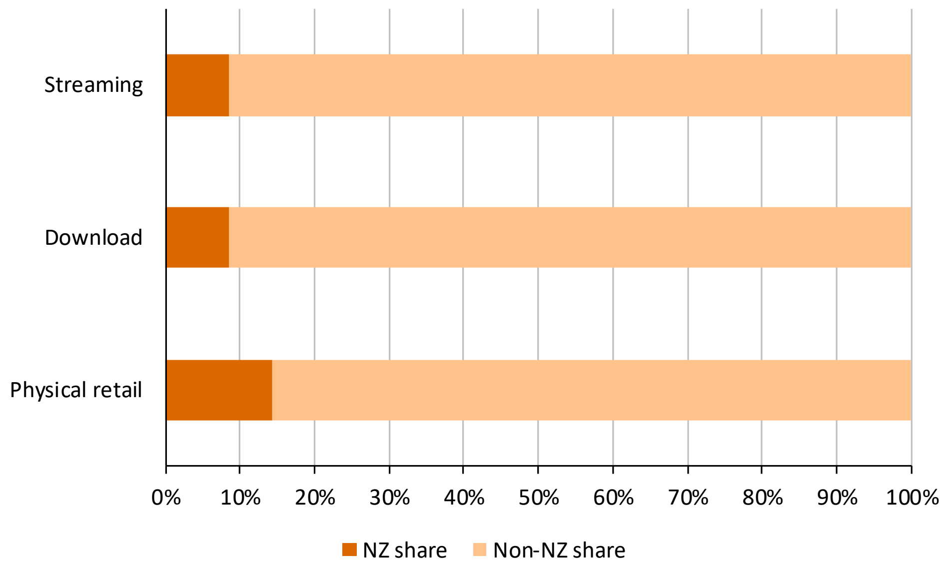
Industry sector	Total sales ($m)	Value added (GDP, $m)		Employment (FTEs)	
		Direct impact	Total impact	Direct impact	Total impact
Physical music	18	13	20	82	139
Downloads	9	6	8	16	29
Online Streaming	108	67	87	185	334
Total retail	135	87	115	282	502

Source: Industry-provided data, PwC analysis

Split between New Zealand and offshore generated content

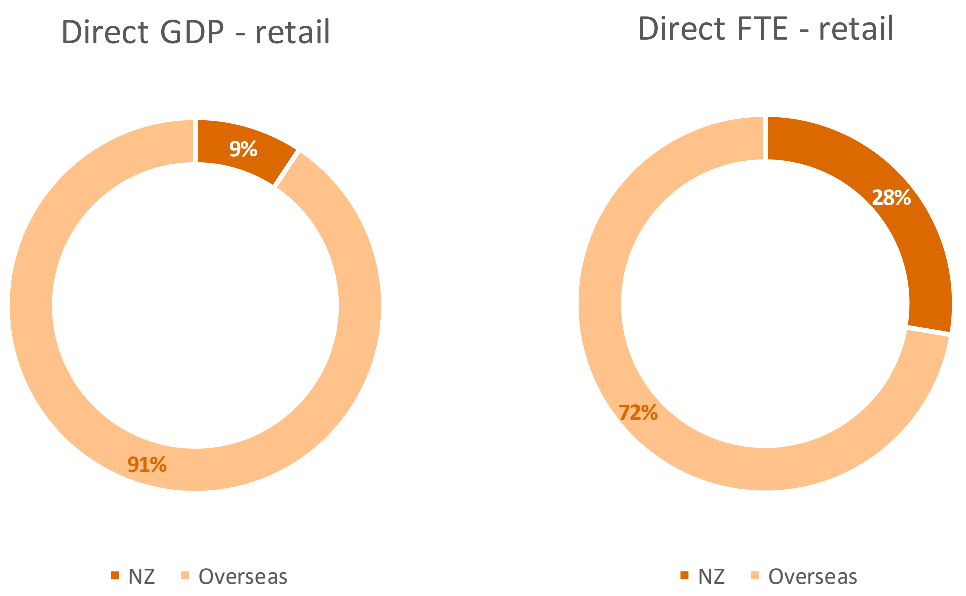
- Figure 11 overleaf shows the share of wholesale revenues from retail music earned by New Zealand musicians in 2018. It indicates that out of every $100 of music purchased at physical retail outlets, $14 was spent on New Zealand music. Across all retail channels, 9% was spent on New Zealand music.
- Figure 12 overleaf shows that 9% of the subsector's contribution to GDP and 28% of the subsector's contribution to employment is derived from New Zealand generated content in 2018.
- This is equivalent to a direct GDP contribution for the retail subsector of $8m and 78 FTEs supported from New Zealand generated content.
- The difference is due to the disparity in employment footprints for physical and online retail channels. Online retail has a much smaller footprint than retail through traditional bricks and mortar stores. As the trend towards online consumption continues to grow, we expect this disparity to increase further.

Figure 11. Share of total retail sales earned by New Zealand generated content, 2018



Source: Industry-provided data, PwC analysis

Figure 12. Share of the retail economic impact from New Zealand generated content, 2018



Source: Industry-provided data, PwC analysis

Table 9. Estimated contribution through retail channels for New Zealand generated content, 2018

Industry sector	Total sales ($m)	Value added (GDP, $m)		Employment (FTEs)	
		Direct impact	Total impact	Direct impact	Total impact
Physical music	3	2	3	12	20
Downloads	1	0	1	5	10
Online Streaming	9	6	14	61	110
Total retail	12	8	18	78	140

Source: Industry-provided data, PwC analysis

Table 10. Estimated contribution through retail channels for overseas generated content, 2018

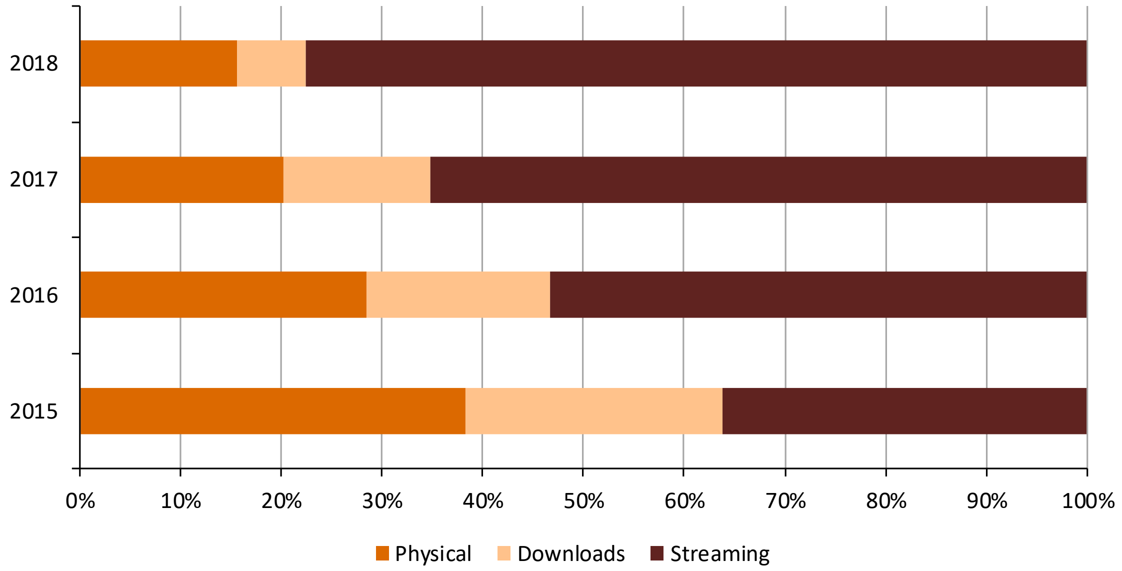
Industry sector	Total sales ($m)	Value added (GDP, $m)		Employment (FTEs)	
		Direct impact	Total impact	Direct impact	Total impact
Physical music	15	12	17	70	119
Downloads	9	5	6	11	20
Online Streaming	99	62	73	124	224
Total retail	122	78	96	204	362

Source: Industry-provided data, PwC analysis

Trends over time

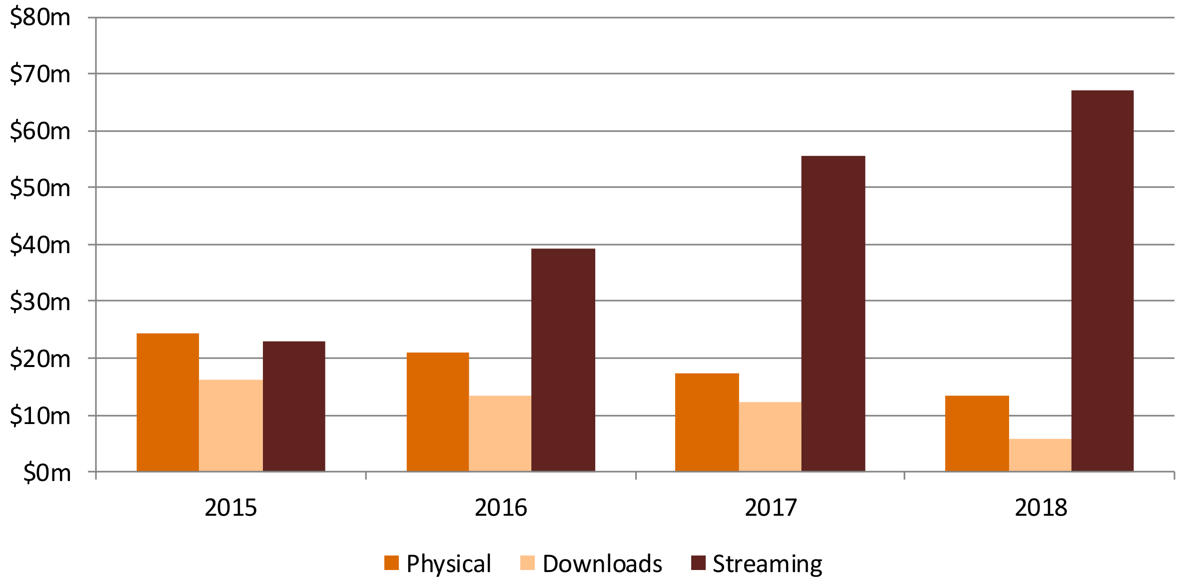
- Historically the majority of retail music's contribution to the New Zealand economy was driven from physical music retail. However, physical music retail has declined significantly and now makes up approximately 16% of total retail gross output in 2018 compared to 38% in 2015.
- The physical sales reduction has been offset by the growth of online streaming, which has grown rapidly over the past three years and now accounts for 78% of retail output. Streaming has largely replaced downloads as the main alternative to physical retail consumption.
- The breakdown of physical and digital revenue has changed over the past four years (as shown in Figure 13 overleaf). Digital consumption is likely to continue growing at the expense of physical consumption.
- As shown in Figure 14 overleaf, the gross output from online streaming increased significantly between 2015 and 2018, indicating that consumers are embracing an on-demand consumption preference. This has been made possible by improvements to broadband internet, 4G mobile networks, greater uptake of mobile data accessible devices and more competitive prices for mobile data and the easy availability of legal streaming services.
- The music industry in New Zealand now effectively monetises online music through streaming. Digital consumption, combined with the effects of illegal use of music, has drastically altered the revenue landscape in the music industry.

Figure 13. Retail direct GDP contribution, by retail channel, 2015-2018



Source: Industry-provided data, PwC analysis

Figure 14. Retail direct GDP contribution, by retail channel, 2015-2018



Source: Industry-provided data, PwC analysis

Box 1. Definition of the retail subsector

This subsector includes all activities related to music retail, whether they take place in a physical or digital format. This category encompasses a range of different consumption points, including on-demand streaming, online music stores, and physical retailers. In all cases these represent the industry's channels to market for the sale or personal use of recorded content.

Physical retail includes activities directly related to the sale of albums, concert DVDs, and other forms of recorded music in stores. There are two major retail chains involved in music retail: The Warehouse, which accounts for roughly half of total physical sales, and specialised retailer JB Hi Fi. In addition, there are independent music stores such as Real Groovy and Slow Boat Records. There has been some resurgence in sales of vinyl records, comprising 9% of all physical sales but the growth in the sales of vinyl records has not been enough to offset a falling physical product market. Over the last twenty years, the number of specialty music stores in New Zealand has fallen from roughly 300 to about 30.

Digital retail, by contrast, is growing rapidly and also undergoing considerable innovation with the development of new online consumption channels for music. It includes all revenues generated by the legal consumption of music through online and mobile channels, including:

- on-demand and streaming services such as Spotify, Apple Music, YouTube and SoundCloud
- digital retail services such as iTunes.

New Zealand music retail has been heavily affected by the emergence of new internet distribution channels for music. These distribution channels are in competition with traditional physical retail. On the one hand, illegal use has provided consumers with an effectively free source of music, which has led to a drop in sales and is likely to have reduced the price point at which consumers are willing to purchase music. On the other hand, digital and in particular streaming from on-demand services such as Spotify or internet radio such as iHeart, are established alternatives to physical retail. In addition, the internet has given musicians more and better channels to reach new audiences and communicate directly with their fans.

5. Public performance (non-radio)

In 2018, the music industry in New Zealand earned $52m in royalties for non-radio public performance.[4]

We estimate that these gross revenues resulted in a direct impact on the New Zealand economy of $17m in GDP and 207 FTEs within the music industry. After accounting for multiplier effects, non-radio communication and public performance had a total economic impact of $42m in GDP and 374 FTEs.

Table 11. Estimated economic contribution from non-radio public performance, 2018

Public performance (non-radio)	Direct economic impacts		Total economic impacts	
	All music	NZ music only	All music	NZ music only
Gross output (sales)	$52m	$14m		
Value Added (GDP)	$17m	$13m	$42m	$31m
Employment (FTEs)	207	133	374	241

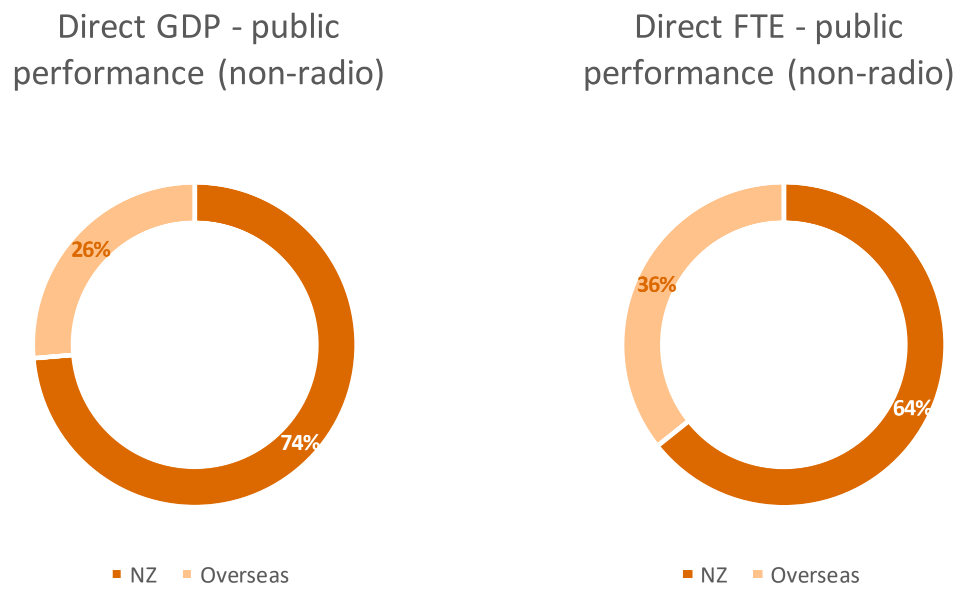
Source: Industry-provided data, PwC analysis

Split between New Zealand and offshore generated content

- New Zealand generated content is responsible for 74% of the direct GDP impact and 64% of the direct employment impact for the communication and public performance subsector.
- New Zealand music was responsible for a large share of the economic impact due to the significant role of royalties earned for New Zealand music.
- In 2018, the direct GDP impact from non-radio public performance from New Zealand content was $13m, and 133 FTEs were supported by New Zealand generated content from this subsector.

[4] Note our definition of “public performance” may differ from that used elsewhere in the industry. Please refer to the Glossary in Appendix A.

Figure 15. Share of the non-radio public performance economic impact from New Zealand generated content, 2018

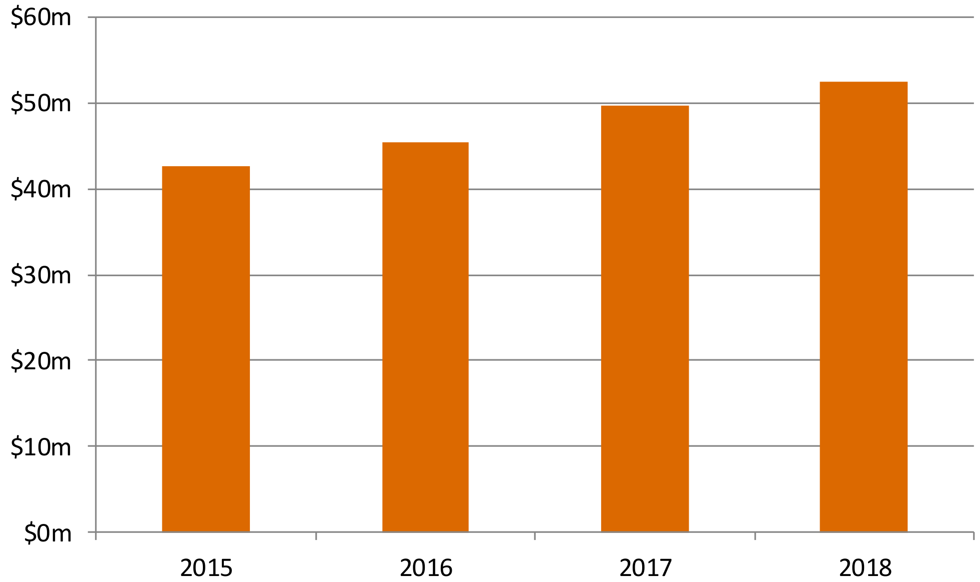


Source: Industry-provided data, PwC analysis

Trends over time

The non-radio public performance subsector has been growing at a steady rate. Figure 16 shows the upward trend in royalties earned from this sector. The subsector experienced growth in revenue, supported by the collective work of OneMusic.

Figure 16. Total sales from non-radio public performance rights, 2015-2018



Source: Industry-provided data, PwC analysis

Box 2: Definition of public performance

In this report, the public performance subsector of the music industry includes all instances in which recorded music is communicated to the public or played in a public venue. In this report it includes:

- communication via radio, television, pay TV, and internet channels
- public performance in premises such as but not limited to retailers, hospitality outlets (bars and cafes), educational institutions, and gyms.

In our analysis, we have split the public performance subsector into radio (radio broadcasting) and non-radio (public performance (non-radio)) which includes television, pay TV, internet channels, hospitality premises etc. The analysis in Table 11 and Figure 16 relate to non-radio channels.

When music is publicly performed, recording artists, record companies, songwriters, and music publishers earn money from royalties paid for this use. These royalties are calculated on a blanket basis and distributed mostly on a per-use basis. Data is obtained from Recorded Music NZ and APRA AMCOS.

6. Radio broadcasting

In addition to the above definition of the public performance sector is music radio broadcasting, which we present as a separate category because of its size and impact.

In 2018, the radio broadcasting sector earned revenue of $228m. We estimate that these gross revenues resulted in a direct impact on the New Zealand economy of $91m in GDP and 831 FTEs within the music industry. After accounting for multiplier effects, music radio broadcasting had a total economic impact of $265 million in GDP and 2,314 FTEs.

Table 12. Estimated economic contribution from radio broadcasting, 2018

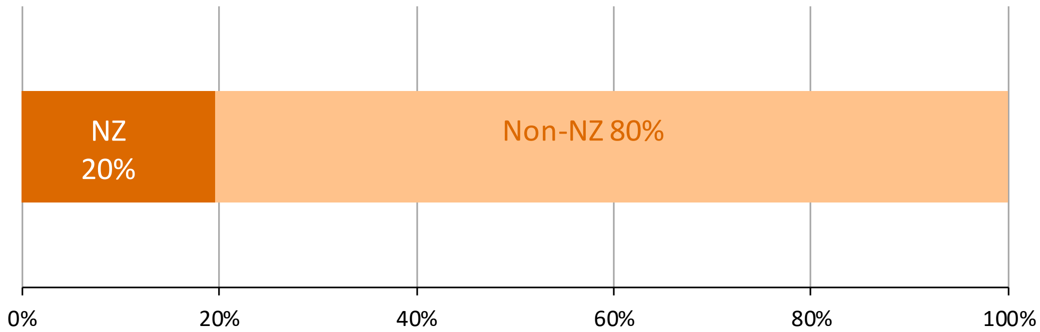
Radio broadcasting	Direct economic impacts		Total economic impacts	
	All music	NZ music only	All music	NZ music only
Gross output (sales)	$228m	$45m		
Value Added (GDP)	$91m	$18m	$265m	$52m
Employment (FTEs)	831	162	2,314	452

Source: Industry-provided data, PwC analysis

Split between New Zealand and offshore generated content

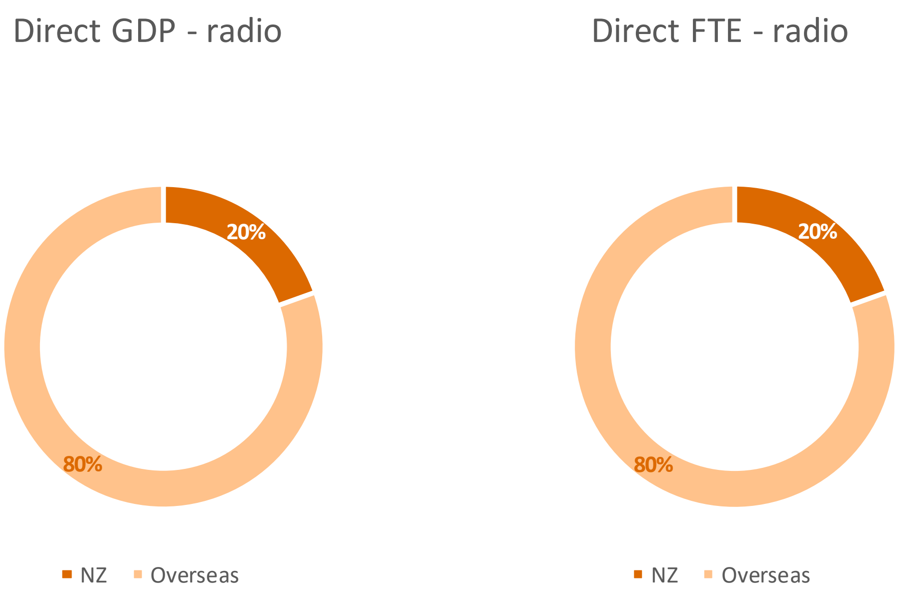
- Figure 17 shows that 20% of total radio plays in 2018 were New Zealand music. This figure is based on RadioScope figures for all radio, including commercial radio, student radio, iwi radio and Pacific Community radio, but does not include Radio New Zealand.
- This proportion is substantially greater than the New Zealand shares of both physical and digital retail. This is due in part to the voluntary NZ Music Code agreement between the Radio Broadcasters Association (on behalf of its commercial radio members) and the Minister of Broadcasting, which has been in place since 2002, and in part to the efforts of NZ On Air in promoting New Zealand music on radio.
- The 20% share of total radio plays is used to estimate the share of the subsector's direct GDP and FTE that arises from New Zealand generated content. It is equivalent to $18m of GDP and 162 FTEs for the 2018 year.

Figure 17. New Zealand share of total radio plays, 2018



Source: Radioscope

Figure 18. Share of the radio economic impact from New Zealand generated content, 2018

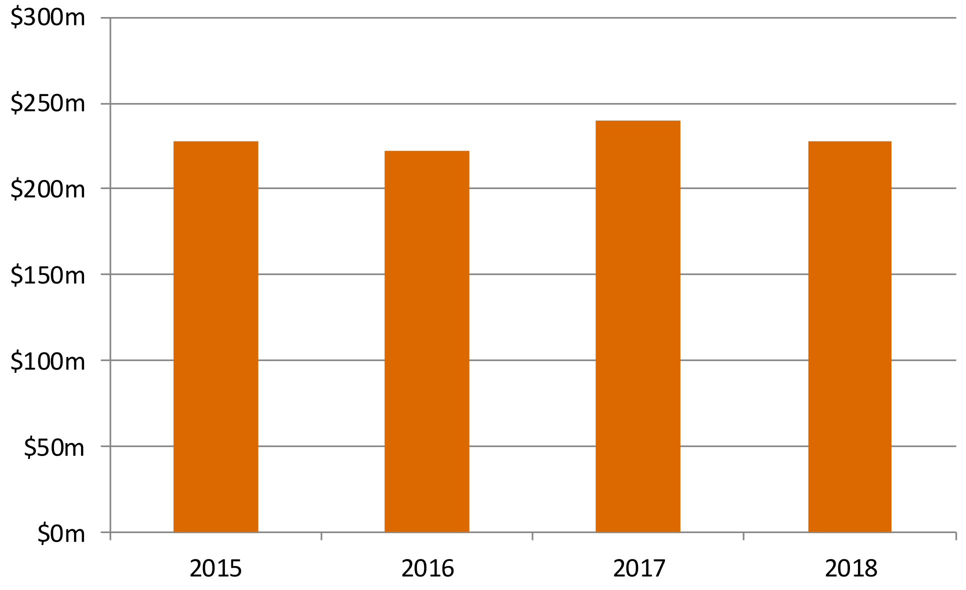


Source: Industry-provided data, PwC analysis

Trends over time

- Revenues in the music radio sub-sector have been relatively stable over recent years. Sales in 2018 were slightly lower than in 2017, but still above the 2016 level.

Figure 19. Total sales from music radio, 2015-2018



Source: Industry-provided data, PwC analysis

7. Live performance

In 2018, the music industry in New Zealand earned an estimated $188m in live performance revenues, based on public performance royalties collected by APRA AMCOS.

We estimate that these gross revenues resulted in a direct impact on the New Zealand economy of $101m in GDP and 1,653 FTEs within the music industry. After accounting for multiplier effects, the live performance subsector had a total economic impact of $251m and 2,992 FTEs.

New Zealand content was responsible for contributing about a quarter of these impacts.

Table 13. Estimated economic contribution from live performance, 2018

Live performance	Direct economic impacts		Total economic impacts	
	All music	NZ music only	All music	NZ music only
Gross output (sales)	$188m	$53m		
Value Added (GDP)	$101m	$28m	$251m	$70m
Employment (FTEs)	1,653	463	2,992	838

Source: Industry-provided data, PwC analysis

One notable feature of the live performance subsector is that it accounts for a greater share of the sector's direct employment (55%) than its GDP impact (30%). This suggests that it is more labour-intensive than other subsectors, as seen in Table 14.

Table 14. Percentage split of live music impacts, by revenue channel, 2018

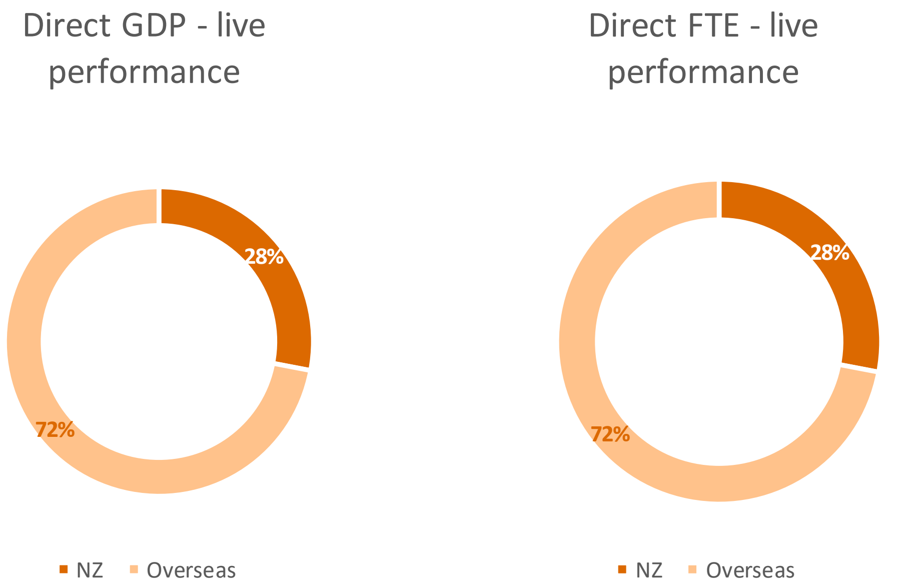
Industry sector	Total sales ($m)	Value added (GDP, $m)		Employment (FTEs)	
		Direct impact	Total impact	Direct impact	Total impact
Retail	21%	26%	16%	9%	8%
Public performance (non-radio)	8%	5%	6%	7%	6%
Radio broadcasting	35%	27%	36%	28%	36%
Live performance	**29%**	**30%**	**34%**	**55%**	**47%**
Synchronisation	1%	1%	1%	1%	1%
Overseas earnings	6%	11%	7%	-	2%
Total	100%	100%	100%	100%	100%

Source: Industry-provided data, PwC analysis
Note: Overseas earnings are an average over 2016-18.

Split between New Zealand and offshore generated content

- Approximately 28% of the subsector's direct contribution to GDP and employment is derived from New Zealand generated content. This is equivalent to $28m of GDP and 463 FTEs.

Figure 20. Share of the live performance economic impact from New Zealand generated content, 2018

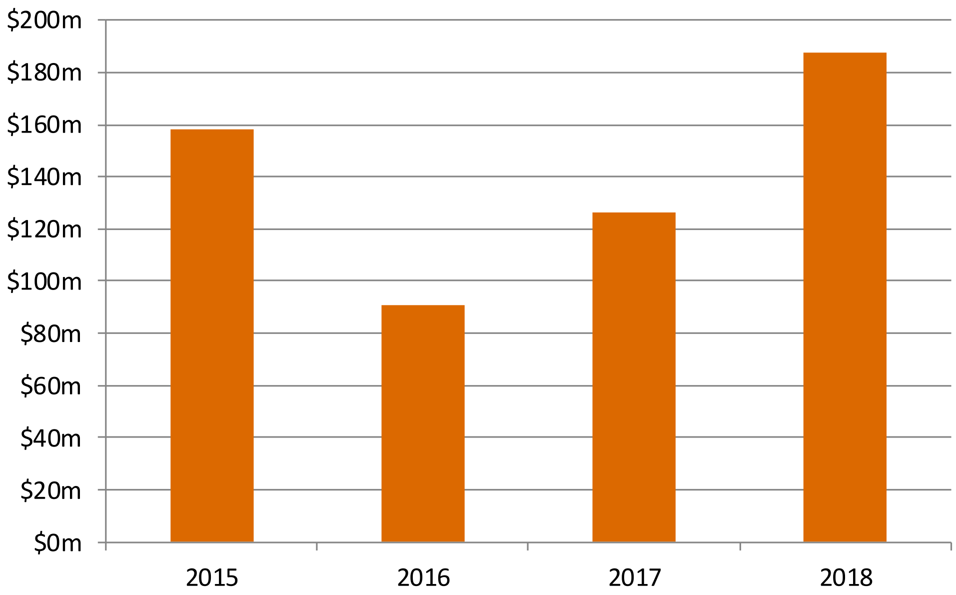


Source: Industry-provided data, PwC analysis

Trends over time

- Revenues from live performance fluctuate from one year to the next based on different touring schedules. 2018 has been the strongest ever recorded year for live performance revenue in New Zealand.

Figure 21. Total sales from live performance, 2015-2018



Source: Industry-provided data, PwC analysis

Box 3: Definition of the live performance sector

The live performance subsector of the music industry in New Zealand includes all types of live music played in New Zealand by local and overseas artists. These include:

- concerts and music festivals
- live music at music venues (ie door sales)
- orchestras
- music in theatre (excluding grand right musical plays).

8. Synchronisation

In 2018, the music industry in New Zealand earned an estimated $4m in annual synchronisation fee revenue.

We estimate that these gross revenues resulted in a direct impact on the New Zealand economy of $2m in GDP and 28 FTEs. After accounting for multiplier effects, synchronisation had a total economic impact of $5m and 50 FTEs.

Table 15. Estimated economic contribution from synchronisation, 2018

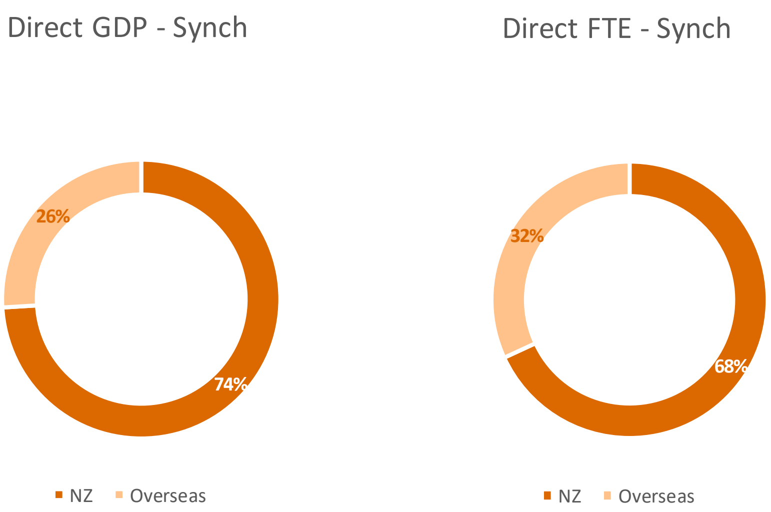
Synchronisation	Direct economic impacts		Total economic impacts	
	All music	NZ music only	All music	NZ music only
Gross output (sales)	$4m	$2m		
Value added (GDP)	$2m	$2m	$5m	$4m
Employment (FTEs)	28	19	50	34

Source: Industry-provided data, PwC analysis

Split between New Zealand and offshore generated content

Approximately 74% of the subsector's direct GDP contribution is derived from New Zealand generated content and 68% of the subsector's direct employment. This is equivalent to $2m of GDP and 19 FTEs.

Figure 22. Share of the synchronisation economic impact from New Zealand generated content, 2018



Source: Industry-provided data, PwC analysis

Trends over time

The contribution of this sector has been broadly constant in the past four years with gross output at approximately $4 million each year.

Box 4: Definition of the synchronisation subsector

> The synchronisation subsector of the music industry in New Zealand includes all royalties earned from licensing music for use in advertisements, games, films, and television programmes.

9. Overseas earnings

New Zealand music income earned overseas represent funds that flow back into the economy and contribute to gross national income. For official purposes, overseas royalties are considered direct contributions to GDP.

Overseas income is earned for the music industry in the form of:

- royalties received from the sale of physical music overseas
- royalties received from online sales and streams, that are purchased overseas
- radio royalties received as a result of airplay overseas
- synchronisation royalties from countries other than New Zealand
- earnings from live performances overseas
- earnings from other endorsements and appearances.

There is no required reporting or official statistics for exports relating to the New Zealand music industry. However, in 2018[5] and 2016[6] PwC and Recorded Music NZ prepared estimates of the total overseas earnings, based on a combination of industry data sources related to earnings from international sales, live performances and any government grants received for international purposes. An estimate of the GDP impact from overseas earnings was included for the first time in the 2016 version of this report series.

Due to the relatively small number of artists with significant offshore earnings, the lumpy nature of earnings, the potentially significant impacts associated with individual artists and the fact that some artists may have been underreported or missed completely, we utilise a multi-year average of overseas earnings data to derive our annual estimate. We have elected to use a three-year average (2016-18) to derive this year's estimate, which matches the approach we used in previous reports.

These estimates have been used to calculate overseas earnings results shown below in Table 16.

Table 16. New Zealand music industry overseas earnings estimate, 2018

	2016-18 average
Royalties	$22m
Live performances and appearances	$15m
Total	**$37m**

Source: Industry-provided data, PwC analysis

[5] PwC (December 2019), Overseas earnings of the New Zealand music industry 2018.
[6] PwC (September 2017), Overseas earnings for New Zealand musicians, 2012-2016.

Appendix A: Glossary

The table below provides a glossary of music industry terms, industry associations, and commonly used acronyms.

Term	Definition
APRA AMCOS	The Australasian Performing Right Association The Australasian Mechanical Copyright Owners Society The New Zealand branch licenses music users, on behalf of its members, and collects fees where music is used for communication or public performance. APRA licenses premises such as (but not limited to) retailers, hospitality, education, and gyms, and venues for live music performance. These fees are then distributed directly to songwriters or to music publishers to whom songwriters have assigned their rights. APRA also now licenses public performance rights for both Recorded Music NZ and itself via the new joint venture licensing brand OneMusic. (www.onemusic.com)
Communication	The transmission of recorded music via mediums including radio, television and the internet.
Music Publisher	While music publishers historically made money by reproducing and selling sheet music, today they invest in, promote and represent songwriters (or song catalogues) and are responsible for ensuring payments are made when their songwriters compositions are reproduced.
On-demand	On-demand music services are businesses that provide access to music as opposed to selling digital music files. Examples include Spotify and Apple Music. These services can have different tiers of revenue collection: eg ad-supported, where the customer has free access but is subjected to audio advertising; and premium subscription which provides ad-free access via both computers and mobile devices such as handsets and tablets.
Public Performance	Public performance refers to two uses of music. First, the playing of music in premises such as retailers, hospitality outlets (bars and cafes), educational institutions, and gyms. Second, the live performance of music in venues. Rights associations representing songwriters and recording artists licence the public performance of recorded and live music. In this report, we use the term 'public performance' to also include other revenue streams. For example we refer to "public performance (non radio)" as including all communication income other than radio.
Record Company	A business that invests in, promotes, and represents recorded music made by recording artists. Record Companies typically represent a mixture of recorded music in which they own the copyright outright and recorded music in which they hold the copyright under exclusive licence from the owner. Often called a "record label".
Recorded Music New Zealand	Recorded Music New Zealand represents the rights of New Zealand recording artists and Record Companies. Activities include the production of The New Zealand Music Awards, the weekly compiling and publishing of the Official New Zealand Music Chart and anti-piracy activities. Additionally, Recorded Music New Zealand is a music service company which licences sound recordings for use in communication, broadcast and public performance, and distributes the revenues to the relevant recording artists and record companies.
Royalty	Royalties are fees paid to songwriters and recording artists accruing from various uses including sale of recordings and public performance.
Synchronisation Right	A music synchronisation licence is required where a piece of recorded music is reproduced with a visual image, for example in a film, game, TV programme or advertisement. Often abbreviated as "synch right".

Appendix B: Approach and methodology

This section provides a detailed overview of our approach and methodology, including definitions of our main economic impact measures, a discussion of our main data sources, and an explanation of how we calculated direct and total economic impacts. Finally, it discusses some opportunities for improving music industry data collection or undertaking future analysis.

Measures of economic impact

This report uses three main indicators of economic impact: gross output, value added, and employment. It relies on input-output (multiplier) analysis to estimate the indirect and induced impacts of the music industry.

Gross output

The gross output of an industry is equal to its total sales revenue. This figure incorporates both value created within that industry and the value of intermediate goods (eg raw materials, real estate, equipment and machinery) purchased by the industry from other industries.

Although gross output or sales revenue is commonly used as a measure of the value of an industry, it is an imperfect measure due to its inclusion of inputs purchased from other industries.

Value added

The value added of an industry is equal to the total value created within that industry. It can also be described as the GDP impact of an industry. It measures the contributions of labour (through wages and salaries) and capital (through profits and depreciation) to the output produced by the industry, and the taxes paid by the industry. As a result, it is equivalent to the gross output of an industry, less the value of all inputs purchased from other industries.

When using our value-added estimates, it is important to understand what they include. GDP measures, including those reported in Statistics New Zealand's national accounts and in most economic impact studies, measure the total value of goods and services produced in New Zealand, rather than the net income of all businesses and individuals located within New Zealand. As a consequence, we will:

- include income earned by overseas musicians touring in New Zealand, as it represents production in New Zealand regardless of whether it is ultimately repatriated elsewhere.
- include royalty payments paid to New Zealand musicians by overseas sources, as they represent exports of goods and services produced in New Zealand.
- These inclusions should be taken into consideration when using our estimates. The New Zealand music industry is relatively globalised – New Zealand consumers purchase a great deal of overseas-originated music, and New Zealand musicians tour and earn royalties overseas. We have excluded most music imports from our analysis by:
- measuring only economic benefits from New Zealand-originated music in digital retail and broadcasting
- including both New Zealand and overseas music in gross output figures for physical retail in the expectation that output multipliers will correct for any imported content.

There were two main reasons to measure value added in terms of GDP. First, GDP impact is the most commonly-used measure of total economic impact. It is used by Statistics New Zealand when reporting on the size of the New Zealand economy and in many other economic impact studies. Although GDP does have some weaknesses, they are not unique to the music industry in New Zealand. Across the whole economy, there is a significant gap between GDP and gross national income (GNI) figures due to the large role of foreign investment and lending in the New Zealand economy. According to World Bank figures, New Zealand's GNI has been three to seven percent lower than GDP in recent years. The same is true for specific industries as well.

Second, recent changes to the development of New Zealand's national accounts mean that the treatment of these earnings now contribute to New Zealand's GDP. As such, estimates for the overseas earnings of New Zealand musicians directly contribute to the music industry in New Zealand's GDP.

Employment

We measure employment on the basis of FTEs, rather than total (full-time and part-time) jobs or headcount. Under this measure, part-time jobs are counted as a proportion of a full-time job – so, for example, a job that involved working 20 hours a 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 can vary between different industries.

Values are reported in New Zealand dollars of the day unless otherwise stated

All figures in this report refer to New Zealand dollars in nominal terms.

Data sources

Main quantitative data sources

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

- Recorded Music NZ figures on physical and digital sales wholesale revenue
- APRA AMCOS data on songwriter royalties and Recorded Music NZ data on recording royalties
- Statistics New Zealand and other industry-level estimates of economic activity and input-output tables for New Zealand industries.

We used multiple sources of data for the overseas earnings study, including data from collection agencies, copyright owners, financial representatives, music managers, other industry organisations and surveyed musicians directly.

In each case, the data obtained related to:

- earnings from international sources from all sales, publishing and synchronisation
- earnings from live performances and touring internationally
- any government grants received for international purposes.

Where possible, other data was used to provide a sense check on estimates derived from these sources.

Our analysis combines the data from all sources. The overall data is comprehensive, and we understand that it covers the vast majority of the musicians who generate overseas earnings. Industry stakeholders believe that combined data will incorporate the bulk of the dollar value of overseas earnings.

The calendar years (year ended December quarter) have been selected as the basis for the economic impact calculations and these are the most recent full set of annual data available. All amounts in this report relate to impacts that occur in this period.

Avoiding double counting

In several cases, Recorded Music NZ and APRA AMCOS figures measured different components of the same market subsector. For example, Recorded Music NZ provided data on total physical and digital music sales, while APRA AMCOS provided data on mechanical royalties (ie royalties paid each time a piece of recorded music is reproduced) paid from physical and digital music sales. As royalties are paid as a proportion of retail sales, including both of these figures in our analysis would mean double-counting activity in this market subsector.

In order to avoid double-counting, we have examined the definitions of each measure of the market and discussed with data providers where necessary.

Multiplier analysis

Direct, indirect and induced impacts

Like any industry, the music industry has spill over effects on other parts of the New Zealand economy. For our purposes here, these impacts can be divided into two categories:

- indirect (or upstream) impacts
- induced impacts.

Indirect impacts occur as a result of purchases of goods and services from other industries. When a record is made or a concert is put on, businesses within the music industry purchase a range of inputs: advertising and marketing, transportation services, machinery and instruments, rented real estate, etc.

Induced impacts occur as a result of the wages and salaries paid out by the music industry. When a musician collects a royalty check, he or she will then spend some of that money on a range of goods and services, thereby stimulating further economic impact.

Estimating direct economic impacts

We estimate the direct impact of the music industry in terms of its contribution to gross output, value added, and employment as follows:

- For each market subsector, we start with figures on either gross output (eg total digital music sales, total estimated ticket sales) or value added (eg broadcasting royalties).
- We use data from Butcher Partners to estimate the ratios of value added (VA) to gross output (GO) and VA (or GO) to employment in these industries. These ratios were then used to estimate direct GO/VA and employment in each market subsector.

Estimating total economic impacts

Spending in the music industry has multiplier effects in other industries as a result of the way in which that spending flows through the economy. Every dollar that is spent directly on music will also stimulate or support other types of economic activity indirect and induced from the industry.

In order to estimate flow-on effects, we applied multipliers calculated using 2012/13 input-output tables for all New Zealand industries, which are the latest available. Multipliers were available for gross output, value added, and employment in these industries.

- Indirect impacts were estimated using Type 1 multipliers, which account for the first-round and indirect effect of purchases of goods and services by each industry.
- Induced impacts were estimated using Type 2 multipliers, which account for induced effects from wages and salaries paid by each industry.

Approaches followed for individual subsectors

The table below summarises the activities in each subsector of the music industry that are included in our GDP calculations.

Industry subsector	Revenue earned in NZ		Revenue earned overseas
	From NZ artists	From overseas artists	
Retail	Included in GDP	Accounted for in GDP	Included
Public performance and radio	Included in GDP	Songwriter royalties not included, as they are earned offshore Recording artist royalties retained by record companies are accounted for in GDP	Included
Live performance	Included in GDP	Included in GDP, as performance occurred here	Included
Synchronisation	Included in GDP	Synchronisation fee revenues paid out to overseas artists are not included, as they are earned offshore Synchronisation fee revenue accruing to local agents (e.g. record companies, music supervision companies) are accounted for in GDP	Included

The table overleaf summarises the methodology and assumptions used to calculate the economic contribution of individual subsectors of the music industry.

Subsector	Information base	Direct value added	Direct FTEs	Total value added and FTEs
Retail – physical music	Wholesale physical sales data provided by Recorded Music NZ	Estimated total retail sales revenue using Statistics NZ Annual Enterprises Survey (AES) data. Estimated split between retailer margin, wholesale (record label) margin, value of rights embodied in physical product, and manufacturing cost using AES data. Estimated value added from the retail margin using the average ratio of value added to gross margin in the "recreational, clothing, footwear, and personal accessory" and "department stores" industries. Estimated value added within record companies by applying the ratio of value added to gross output in the "heritage and artistic" industry and adding the total value of rights embodied in the physical product. Estimated value added from manufacturing using the ratio of value added to gross output in the "printing", "publishing (except internet and music publishing)" and "polymer product and rubber product manufacturing" industries.	Based on ratios of employment to value added as follows: • retailer margin – the average of the "recreational, clothing, footwear, and personal accessory retailing" and "department stores", • record company margin - "heritage and artistic" • manufacturing - "printing", "publishing (except internet and music publishing)" and "polymer product and rubber product manufacturing". No additional employment impact calculated for the value of rights embodied in the physical product, as this is likely to be repatriated overseas as profit. (Employment in record label activities is captured elsewhere.)	Based on total (direct, indirect, induced) multipliers as follows: • retailer margin – the average of the "recreational, clothing, footwear, and personal accessory retailing" and "department stores" • record company margin - "heritage and artistic" • manufacturing - "printing", "publishing (except internet and music publishing)" and "polymer product and rubber product manufacturing". No spillover impacts calculated for the value of rights embodied in the physical product, as this is likely to be repatriated overseas as profit.
Retail – digital music	Wholesale digital sales figures provided by Recorded Music NZ, plus data on songwriter royalties for digital sales provided by APRA AMCOS.	Estimated total retail sales revenue using information provided by APRA AMCOS. Estimated split between retailer margin, record label revenue, and royalty revenue using information provided by APRA AMCOS. Used AES data to estimate the value of the rights embodied in the digital product.	Based on ratios of employment to value added for the "heritage and artistic activities" industries. No additional employment impact	Based on total (direct, indirect, induced) multipliers for the "heritage and artistic activities" industries.

		Because online retailers primarily based overseas, the retailer margin was assumed to have no value added impact. Estimated value added within record companies by applying the ratio of value added to gross output in the “heritage and artistic activities” industry and adding the total value of rights embodied in the physical product.	calculated for the value of rights embodied in the digital product, as this is likely to be repatriated overseas as profit. (Employment in record label activities is captured elsewhere.)	No additional employment impact calculated for the value of rights embodied in the digital product, as this is likely to be repatriated overseas as profit.
Public performance rights	Data on songwriter royalties provided by APRA AMCOS and recorded music artist royalties provided by Recorded Music NZ for radio and TV broadcasts and public performance of music.	Estimated the share of royalties paid out to New Zealand songwriters and recording artists using Radioscope data on the New Zealand music share of total radio plays. All (songwriter and recording artist) royalties paid for New Zealand artists converted directly to value added as they represent direct income earned locally. Estimated that 50% of recording artist royalties paid for overseas-originated music would be retained by record companies as profits and funding for their New Zealand-based marketing activities, while the remaining 50% would be paid directly to overseas recording artists or repertoire owners. Estimated an economic impact related to the recording artist royalties retained locally by record companies using the ratio of value added to gross output in the “heritage and artistic activities” industry. Songwriter royalties paid for overseas-originated music does not generate any value added in New Zealand.	Based on ratio of employment to value added for the “heritage and artistic activities” industry.	Based on total (direct, indirect, induced) multipliers for the “heritage and artistic activities” industry.
Radio broadcasting	Data on total radio licensing fees and licensing fee rate provided by APRA AMCOS	Estimated the total radio output that is related to the music industry based on the licensing fees as being the proportion of the total evidenced by the licensing rate. Output = Licensing fees/licensing rate	Based on ratio of employment to value added for the “motion picture and sound recording activities” and “broadcasting and internet services” industries.	Based on total (direct, indirect, induced) multipliers for the “motion picture and sound recording activities” and “broadcasting and internet services” industries.
Live performance	Data on songwriter royalties provided by APRA AMCOS for live performance of music and APRA AMCOS information on the royalty rate.	Gross output (ie ticket sales) estimated by dividing the value of songwriter royalties by the royalty rate applied to ticket sales. Value added in live performance estimated by applying the ratio of value added to gross output in the “heritage and artistic activities” industry to estimated gross output.		

Synchronisation rights	Estimated total songwriter and recording artist royalties earned from synchronisation deals in New Zealand provided by Recorded Music NZ.	Estimated the share of royalties paid out to New Zealand songwriters and recording artists using Recorded Music NZ estimate of the New Zealand music share of total synchronization revenues. All (songwriter and recording artist) royalties paid for New Zealand artists converted directly to value added as they represent direct income earned locally. Estimated that 50% of (songwriter and recording artist) royalties paid for overseas-originated music would be retained by negotiating agents as profits and funding for their New Zealand-based activities, while the remaining 50% would be paid directly to overseas rights-holders. Estimated an economic impact related to the recording artist royalties retained locally by record companies using the ratio of value added to gross output in the “heritage and artistic activities” industry.	Based on ratio of employment to value added for the “heritage and artistic activities” industry.	Based on total (direct, indirect, induced) multipliers for the “heritage and artistic activities” industries.

Appendix C: Restrictions

This report has been prepared for Recorded Music NZ to present estimates of the economic contribution of the New Zealand music industry, based on industry information, to help the industry assess its impact on the New Zealand economy. This report has been prepared solely for this purpose and should not be relied upon for any other purpose. We accept no liability to any party should it be used for any purpose other than that for which it was prepared.

To the fullest extent permitted by law, PwC accepts no duty of care to any third party in connection with the provision of this report and/or any related information or explanation (together, the "Information"). Accordingly, regardless of the form of action, whether in contract, tort (including without limitation, negligence) or otherwise, and to the extent permitted by applicable law, PwC accepts no liability of any kind to any third party and disclaims all responsibility for the consequences of any third party acting or refraining to act in reliance on the Information.

We have not independently verified the accuracy of information provided to us, and have not conducted any form of audit in respect of Recorded Music NZ. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied.

The statements and opinions expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise.

The statements and opinions expressed in this report are based on information available as at the date of the report.

We reserve the right, but will be under no obligation, to review or amend our report, if any additional information, which was in existence on the date of this report, was not brought to our attention, or subsequently comes to light.

This report is issued pursuant to the terms and conditions set out in our engagement letter dated 23 July 2019.