
Economic importance of sport in Scotland 1998-2012

A research report for **sportscotland** by the Sport Industry Research
Centre, Sheffield Hallam University

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Doges, Templeton on the Green, 62 Templeton Street, Glasgow, G40 1DA

Tel: 0141 534 6500 www.sportscotland.org.uk

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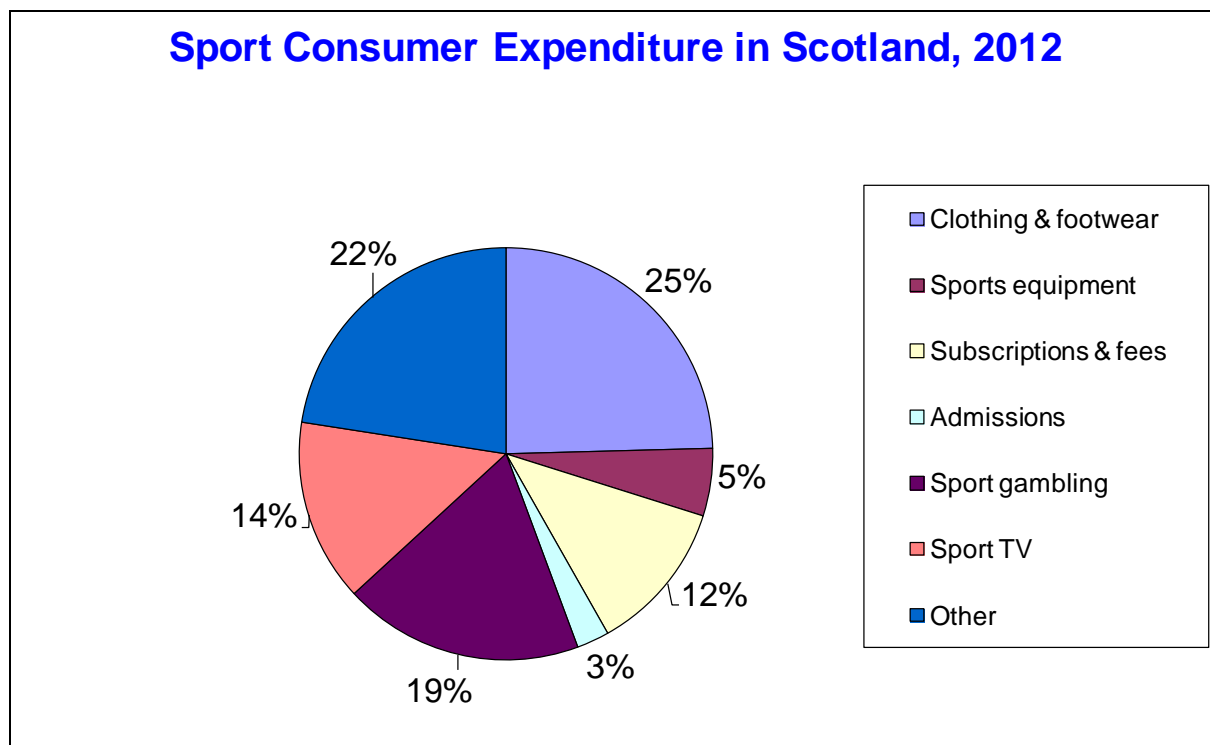
Table of contents

1. Executive summary	1
2. Introduction	3
2.1 Terms of reference.....	3
2.2 Methodology	3
2.3 Development of sport in Scotland	4
3. The sport economy in Scotland	7
3.1 Summary of key indicators.....	7
3.2 Consumer spending.....	8
3.3 Consumer spending in 2008 prices.....	9
3.4 Sport-related output	11
3.5 Sport-related employment.....	11
3.6 Summary of income and expenditure flows.....	12
4. The sport economy in context.....	14
4.1 Spending, output and employment.....	14
4.2 Sport and leisure industries.....	14
5. Appendices	19
A1: Statistical sources.....	19
A2: Model output.....	20
A3: Sources and methods.....	35
Consumer expenditure	35
A4: Definitions.....	40

1. Executive summary

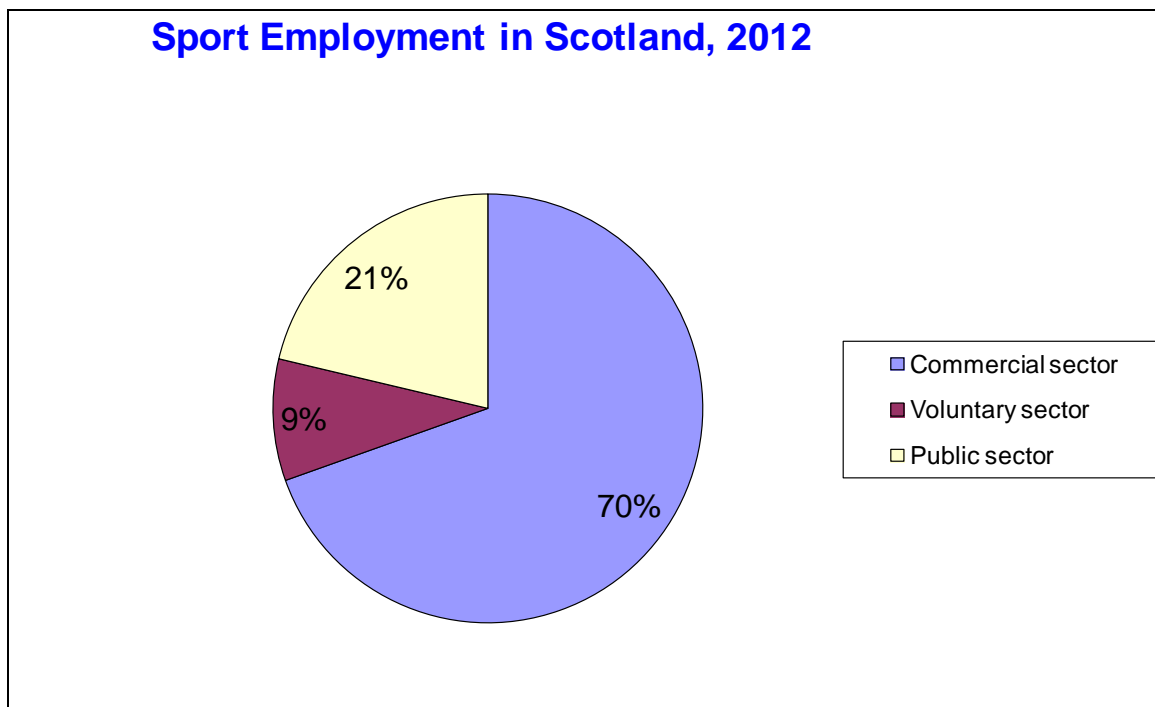
- This report provides an update of the economic importance of sport in Scotland using the spreadsheet model developed by the Sport Industry Research Centre as part of its review of the economic importance of sport studies. This is part of a series of reports on the economic importance of Sport in Scotland, previous reports were published in 1998, 2001, 2004, 2008 and 2010. This report provides the output from the SIRC model for 2012 and summarises the key indicators for the economic importance of sport in Scotland.
- The economic value of sport has been assessed across Scotland, focusing on consumer spending, value added and employment.
- This report focuses on the economic importance of sport in Scotland in 2012, and provides comparisons with other home countries where data is available. Comparator data for English regions (2008) and Wales (2010) have been analysed as part of this research. Unless specified, the analysis is conducted in market prices.
- The methodology employed in this report is based on the principle of national income accounting, which uses the flow of income and expenditure between sub-sectors of the economy to calculate a monetary value for sport production (value added). This is consistent with the national statistics framework.

Figure 1.1



- In 2010 and 2012, Scottish consumers spent **£1,898m** and **£2,120m** on sport respectively. Consumer expenditure on sport in 2012 as a percentage of total expenditure was 2.6% in Scotland compared to 2.4% in Wales (2010).
- Sport and associated industries are estimated to account for **52,300** full time equivalent jobs in Scotland, corresponding to **2.5%** of total employment (2012). The vast majority of sport employment comes from the commercial sector. There has been a continuous rise in the share of sport-related employment, as a percentage of total employment, since 1998.
- Sport-related economic activity generated **£1,838m** and **£2,128m** value added in 2010 and 2012 respectively. The importance of sport, in terms of gross value added (GVA), increased from **1.5%** of the national economy in 1998, to **2.0%** in 2012.
- During the period 2010-2012 a total of 6,000 new sport jobs (full-time-equivalent) were created, largely as a result of the preparation (construction) for the Commonwealth Games, corresponding to around 1,000 jobs per year above the existing trend since 2008.

Figure 1.2



2. Introduction

2.1 Terms of reference

This report has been prepared by the Sport Industry Research Centre (SIRC) at Sheffield Hallam University on behalf of **sportscotland**. The purpose of the report is to provide an estimate of the economic importance of sport in Scotland for the year 2012 and compare with past estimates. It builds on similar research carried out by SIRC in 1998, 2001, 2004, 2008 and 2010 that measured the value of the sport economy in Scotland. This report identifies the direct economic contribution of sport to the national economy, both in monetary and percentage terms, as defined by sport-related consumer spending, Gross Value Added (GVA) and employment. The focus of the report is on economic activity in the year 2012, which is the exact point when spending for the 2014 Commonwealth Games started to pick up, although 70% of the planned spending will appear in the subsequent years 2013-2015¹

2.2 Methodology

The SIRC model of economic impact assessment uses economic variables from official statistics as its basic input. Hence, with the sole exception of the voluntary sector, there is no need for collection of primary data. National income accounting provides the framework for this model, which is consistent with the UK National Accounts. It allows for a division of the sports economy into the seven sectors below:

- **Consumers**, including the personal or household sector. Shows mainly sport-related expenditure, e.g. spending on sports clothing and footwear.
- **Commercial Sport** including spectator sport clubs, sports goods manufacturers and retailers. In this section, we would classify companies such as Nike, Goals Soccer Centres and professional football clubs. We also include a section of the media associated with sport TV, sport publications etc.
- **Commercial non-sport**, includes suppliers for the production of sport-related goods and services. This sector includes all companies of the commercial sector that do not provide a sport product, but they assist through supply of inputs or revenue in its production. Examples include a bank sponsoring a professional football club, construction projects of sport clubs, energy requirements etc. In the case of sponsorship, the revenue received by the club represents a flow from the commercial non-sport to the commercial sport sector.
- **Voluntary**, including non-profit making sport organisations such as amateur clubs run by their participants.
- **Local government**, including income from sport facilities, sport-related grants from the central government and rates from the commercial and voluntary sector. The sector has expenses such as wages for labour (a flow towards consumers) and grants to the voluntary sector.
- **Central government** including taxes, grants and wages on sport-related activities. For example, a person buying a ticket for a football match records two flows: one

¹ Audit Scotland: Commonwealth Games 2004, Progress Report

towards the government sector as VAT, and another towards the commercial sport sector for the remainder of the price.

- **Outside the area sector** this includes all transactions with economies outside Scotland.

We record income and expenditure flows between the seven sectors above. As a result we can draw up a set of income and expenditure accounts for each sector. The 'double entry' accounting principle is applied so that for every expenditure flow from sector A to B there is a corresponding income flow to sector B. The income and expenditure accounts are then used to derive estimates for the following economic impact indicators of the sport economy:

- Sport-related consumer expenditure
- Sport-related employment
- Sport-related value added

Sport-related value added is the most comprehensive statistic of economic value as it corresponds to the gross value added (GVA) in the economy as a whole. It shows the contribution of the sport industry to the economy. We measure it as the sum of wages and profit surplus in the sector, adjusted for the inclusion of value contributed from National Lottery projects. Using the terminology of the Annual Business Survey (ABS):

Total turnover \approx (Wages & salaries) + (Profits) + (Purchases of goods materials and services)

The method used is consistent with the Office for National Statistics (ONS) estimate, as reported in the publication *Consumer Trends*². Inflation adjustment has been used for comparisons of the year 2010 with past data. The sport-generated product (GVA) as percentage of the total product is usually the most important statistic to consider. Together with average wages per sector and profit margins, GVA contributes towards producing estimates for sport-related employment. To do so, average wages per sector (full time) were recorded per sector using the Annual Survey of Hours and Earnings. This implies that the resulted employment figures are full-time equivalent.

2.3 Development of sport in Scotland

Preparation for the 2014 Commonwealth Games have boosted the direct investment in sport and have created new jobs in the non-sport commercial sector supporting new projects. A significant investment is the £13.7m extension to the Tollcross Aquatics Centre in Glasgow, used for the Commonwealth Games swimming competitions. Overall the Glasgow Commonwealth Games is estimated to be worth £35m to the city in terms of additional economic activity. However, the overall infrastructure plans are likely to exceed £500m. New major investments include the Sir Chris Hoy Velodrome, with a permanent viewing

² *Consumer Trends Quarter 3 2013 (ONS)*

capacity of 2,500 and a temporary expansion of 2,000 for the Commonwealth Games, and the adjoined National Indoor Sports Arena with a viewing capacity of 5,000.

Edinburgh will host the new £30m National Performance Centre for Sport, offering world class facilities, coaching and medicine for athletes and squads. The Centre will be operational by 2016, and will offer, among other facilities and offices, an indoor full sized 3G football pitch with seating capacity for 500, a full sized Hampden grass pitch with seating for 500, two grass rugby pitches, five grass football pitches, three outdoor tennis courts, a nine court sports hall, and an 100 station fitness suite³. Other sport initiatives of wider importance include a £15.7m Regional Football Centre in Glasgow, with a full size indoor synthetic pitch, accommodating 700 spectators; and the launching of the Scottish mountain biking strategy in 2010. Mountain biking is expected to grow significantly over the next two years to be worth more than £155m to the country according to Tourism Intelligence Scotland.

Scotland is known as the home of golf. Although the country has 550 golf courses, around 70 of them generate the vast majority of economic benefits. Scotland regularly hosts major events such as the Open Championships (2007, 2009, and 2010) and will host the 2014 Ryder Cup in Gleneagles. The Scottish Government estimate this event will generate £100 million for the Scottish economy, bringing an estimated 45,000 spectators a day to the local area.

Sport tourism is a growing trend, booking holidays around a mass participation event and combining it with sightseeing⁴, this provides opportunities for place marketing and showcasing a destination. Events that are contributing in this trend include the Baxter's Loch Ness Marathon and the Edinburgh Marathon Festival which in 2012 attracted 9,000 and 30,000 runners respectively. Given these participation levels the events have now become self-financing, providing short term economic benefits that outweigh the cost of staging the events. In the case of high profile events such as the Edinburgh Marathon and the Great Scottish Swim, the majority of participants come from outside Scotland and stay overnight, boosting the amount of exports generated in the economy.

Current Scottish Government investment policy emphasises the dual use of new sport facilities for both community and elite athletes, this should ensure that these facilities are not only used for specific events but are used year round. The Scottish Government also launched a new £1m fund in 2014 to help communities run their own sport facilities. These policies, if linked to increased sports participation, can help safeguard a long term legacy. Similarly, the Scottish Government has introduced 'Fit in 14', a campaign designed to increase sport participation through the workplace. The scheme focuses on taking small steps such as taking the stairs instead of a lift, going for a walk during lunch break etc.

³ http://www.sportscotland.org.uk/news/sportscotland/2013/national_performance_centre_for_sport1/

⁴ Visit Scotland: The Tourism Benefits of Mass Participation Sporting Events (2014)

Finally the long term sport legacy is supported by a £6m fund to support physical education in Scottish schools

All the policies above will help to safeguard a long term legacy following the 2014 Commonwealth Games. Due to the simultaneous economic recovery and the preparations for the Games sport-related employment increased by 5,000 (FTE) from 2008 to 2012, increasing the share of sport in the economy from 2.1% to 2.5%. This is largely due to the investment in the commercial non-sport sector in preparation for the Commonwealth Games and the recovery from the economic recession. The sport economy following the recession is back on trend with construction activity for the Commonwealth Games adding a further 1,000 jobs. This is exactly in line with the forecast of the Pre-Games report based on the Scottish Government's Input-Output model of the economy⁵. It must be emphasised that the construction element of the extra employment is temporary and should only be considered as a short term legacy of the Games.

⁵ Scottish Government: An evaluation of Legacy from the Glasgow 2014 Commonwealth Games-Pre Games Report (2014)

3. The sport economy in Scotland

3.1 Summary of key indicators

Table 3.1 summarises the most important sport-related indicators for Scotland, namely consumer expenditure, gross value added and employment for the years 1998, 2001, 2004, 2008, 2010 and 2012.

Table 3.1: Main sport-related indicators for Scotland

	1998	2001	2004	2008	2010	2012
Consumer expenditure on sport (£million)	1,019	1,266	1,567	1,830	1,898	2,120
percentage of Scottish total	2.2	2.5	2.7	2.5	2.5	2.6
percentage of Wales total	2.2		2.3		2.4	
Gross Value Added by sport (£million)	965	1,196	1,537	1,737	1,838	2,128
percentage of Scottish total	1.5	1.7	1.9	1.7	1.9	2.0
percentage of Wales total	1.7		1.8		2	
Sport-related employment (thousands)	37.9	39.3	43	47.2	46.3	52.3
percentage of Scottish total ⁶	1.6	1.8	2.0	2.1	2.2	2.5
percentage of Wales total	1.5		1.8		1.8	

⁶ There has been some adjustment in the calculation of the historical percentages in employment to account for the change in data sources from New Earnings Survey to ASHE and the greater importance of part time and temporary jobs in the Scottish economy

The table also makes comparisons with Wales, where possible. The estimates for total consumption expenditure in Scotland are derived using Family Spending and Consumer Trends statistics. According to Table 3.1, £2,120m was spent on sport-related goods and services in Scotland in 2012. In the same year, consumer expenditure on sport accounted for 2.6% of the total expenditure in Scotland, which is higher than the equivalent national average for Wales (2.4%) in 2010. This is also the highest sport share of consumer spending since 2004. The Scottish sport economy has benefited from construction work for the 2014 Commonwealth Games.

Overall, during the period 1998-2012, the proportion of consumer spending on sport within the economy increased gradually, from 2.2% in 1998, to 2.5% in 2001, and to 2.7% in 2004, before declining back to the 2.5% position in 2008 and 2010. The sport economy is back on growth compared to the rest of the economy, with its share in 2012 up to 2.6%.

In 2012, sport-related economic activity added £2,128m to the Scottish economy, which, in current prices, increased by 77% over the previous ten years. The contribution to GVA by sport in Scotland has increased from 1.5% in 1998 to 1.7% in 2001, and then to 1.9% in 2004 and 2010. The 2012 share of 2.0% is the greatest recorded in any economic study of Scottish sport. Additionally, sport maintained its economic share despite the overall fall of economic activity in Scotland from 2008 to 2010.

Sport-related employment in Scotland grew from 37,900 in the year 1998 to 52,300 in 2012. This growth was not continuous, peaking at 47,200 in 2008 before the start of the global economic crisis. The preparations for the Commonwealth Games have helped to boost the employment figures with the latest figures being the highest ever recorded both in terms of absolute numbers and share of employment. As a percentage of total employment, the contribution of sport in Scotland increased from 1.6% in 1998 to 1.8% in 2001 and finally to 2.5% in 2012. On all three percentage indicators, the relative position of sport in Scotland was not undermined by the global economic crisis, even though there was an absolute decline in employment between 2008 and 2010 (both in sport and the economy overall). The figures show the considerable short term economic legacy from the Commonwealth Games which should be maximised in 2014.

3.2 Consumer spending

Table 3.2 summarises the value of sport-related consumer spending in Scotland. The estimates are consistent with the total reported in the ONS Consumer Trends publication. It shows that the total value of sport-related consumer spending was £2,120m in 2012, representing an increase of 12% over the year 2010. Sport clothing and footwear is the single largest participation-related category of consumer spending on sport, accounting for £521m or 25% of the market in 2012. In the same year, the combined participation-related sectors of subscriptions and fees (£253m), sport goods (£112m) and sportswear accounted for 42% of the market. Despite the strong performance of participation related spending, the percentage share has declined since 1998 as the sport economy becomes more complex with sport gambling and sport TV making up a larger share of total expenditure.

Gambling accounted for £399m or 19% of the market in 2012 (a share unchanged compared to 2010). The increase (86%) in sport-related gambling expenditure during the period 1998-

2004 can be explained by the abolition of gaming tax. By 2010, sport gambling was in decline (-28%) compared to 2008, with a strong recovery observed in 2012.

The role of sport in creating output and employment in the commercial non-sport sector is illustrated by the sports-related spending on 'TV and video rental, cable and satellite subscriptions', accounting for over 14% of the market. Other spending categories include publications, sport-related BBC licence fee, and sport travel.

Table 3.2: Sport-related consumer spending in Scotland, current prices

	1998	2001	2004	2008	2010	2012
	£m	£m	£m	£m	£m	£m
Sport clothing and footwear	246	277	336	356	439	521
Sports goods	78	127	108	51	110	112
Participation subscriptions and fees	204	261	279	236	289	253
Admissions to events	51	54	62	48	52	54
Sport-related gambling	168	173	312	490	353	399
TV/video rental, cable and satellite subscriptions	83	124	167	264	251	303
Other sport-related spending	189	350	303	385	404	478
Total	1,019	1,266	1,567	1,830	1,898	2,120

3.3 Consumer spending in 2008 prices

Table 3.3a summarises the value of sport-related consumer spending in Scotland using 2008 prices. The estimates are consistent with the price indices for sport produced in the publication Sport Market Forecasts 2011-2015 and overall with the Consumer Price Index. In this way we can compare volumes of spending without being influenced by price inflation. The categories of Table 3.3a correspond to the presentation of Table 3.2. Since we use 2008 prices, the numerical magnitudes in 2008 under both Tables 3.2 and 3.3a are identical. The exact price indices used are presented in Table 3.3b.

During the period 2008-2012, sport-related consumer spending increased by 5% in real terms. This is a strong performance, given the economic crisis which began in autumn 2008. Overall, during the period 1998-2012 sport-related consumer spending increased by 59% in real terms. However, this increase was not shared equally across all sectors. The consumer market was driven by sports clothing and footwear, sports goods, and sport TV, each one of them increasing by 280%, 70%, and 135% correspondingly, during the 1998-2012 period.

Sport-related gambling grew by 43% during the 1998-2012 period, recovering from a 33% decline in real terms during the years 2008-2010. Despite the overall growth, the sector's admissions to events and participation subscriptions and fees are still in decline.

Table 3.3a: Sport-related consumer spending in Scotland, 2008 prices

	1998	2001	2004	2008	2010	2012	1998/2012
	£m	£m	£m	£m	£m	£m	change
Sport clothing and footwear	146	198	275	356	477	554	280%
Sports goods	62	107	101	51	108	106	70%
Participation subscriptions and fees	304	343	336	236	278	232	-24%
Admissions to events	77	71	73	48	49	47	-39%
Sport-related gambling	237	225	363	490	327	338	43%
TV/video rental, cable and satellite subscriptions	112	159	190	264	235	263	135%
Other sport-related spending	275	336	347	385	388	435	58%
Total	1,213	1,439	1,685	1,830	1,861	1,927	59%

Table 3.3b summarises the price indices underpinning the estimation of consumer spending in 2008 prices. The indices are based on the Consumer Trends dataset (ONS). In our calculations $\text{Volume} = 100 * \text{Value}/\text{Price}$.

Table 3.3b: Sport-related price indices, 2008 prices (=100)

	1998	2001	2004	2008	2010	2012
Sport clothing and footwear	169	140	122	100	92	94
Sports goods	126	119	107	100	102	106
Participation subscriptions and fees	67	76	83	100	104	109
Admissions to events	66	76	85	100	107	115
Sport-related gambling	71	77	86	100	108	118
TV/video rental, cable and satellite subscriptions	74	78	88	100	107	115
Total	84	88	93	100	102	110

Prices follow a general increasing trend. The only exceptions are sport clothing and footwear, and sport goods (up to 2008), mainly because of the influx of Chinese produced goods.

3.4 Sport-related output

Table 3.4: Sport-related value added in Scotland, current prices

	1998	2001	2004	2008	2010	2012
	£m	£m	£m	£m	£m	£m
Commercial sport	256	325	382	298	346	417
of which:						
Spectator sports	29	62	72	71	81	119
Retailing	156	177	215	120	170	196
Commercial non-sport	472	553	767	1,025	975	1,122
Voluntary sector	120	161	205	181	241	249
Public sector	116	159	183	233	276	339
Total	965	1,196	1,537	1,737	1,838	2,128

Estimates of sport-related output are based on value added by the sport sector. Value added is calculated as the sum of wages and profits generated within the sector. Table 3.4 summarises the value added by sport in Scotland. According to the table, sport-related economic activity increased from £965 in 1998 to £2,128 in 2012. The majority of this economic activity (£1,122m, 53%) is generated by the commercial non-sport sector. This has increased in importance following construction work associated with the Commonwealth Games. The next largest sector is commercial sport (£417m, 20%). Approximately two-thirds of the value added in this sector is attributable to professional football clubs and retailing. Retailing includes sport-related clothing and footwear, equipment and publications.

The voluntary and public sectors account for the remainder (£588m, 28%) of the sport-related economic activity in Scotland. In each case, the ratios of wages and profits out of total turnover are calculated using the Annual Business Survey.

3.5 Sport-related employment

Table 3.5 provides estimates for sport-related employment in Scotland. The employment estimates are derived from calculations based on wage payments and average salaries per sector, as reported in the Annual Survey of Hours and Earnings (ASHE). The latter has been adopted as a basis of average wages per sector following the abolition of the New Earning Survey which was used in all early economic studies. ASHE introduced a greater detail in the definition of economic sectors; accordingly, although the GVA estimates were not affected, employment figures (derived from GVA and wages) had to be re-estimated. All employment in sport and in the national economy is estimated as Full time equivalent (FTE) where two part time jobs are approximately equivalent to one full time.

Table 3.5: Sport-related employment in Scotland

	1998 (’000)	2001 (’000)	2004 (’000)	2008 (’000)	2010 (’000)	2012 (’000)
Commercial sport	10	9.6	9.5	10	10.4	11.9
of which:						
Spectator sports	3.5	3.1	2.4	3.2	3.2	4.2
Retailing	3.5	3.7	4	4	4.5	4.9
Commercial non-sport	17.8	18.1	22.2	23.8	21.9	24.6
Voluntary sector	3.9	4.5	4.6	4.6	4.7	4.8
Public sector	6.2	7	6.7	8.7	9.3	11.1
Total	37.9	39.3	43	47.2	46.3	52.3

Sport and associated industries are estimated to account for 52,300 full time equivalent jobs in Scotland, accounting for 2.5% of all Scottish employment in 2012. This represents an increase of 38% since the year 1998. The relative share of employment generated within each sector is broadly consistent with their share of value added to the national economy. In 2012, as with value added, the largest sector was commercial non-sport, supporting 24,600 jobs or 47% of all sport-related employment in Scotland, **including construction jobs related to new building for the Commonwealth Games**. The commercial sport, voluntary and public sectors support 23%, 9% and 21% of Scotland’s sport-related jobs respectively.

Sport employment has increased significantly its share in the national economy, from 1.6% in 1998 to 2.2% in 2010 and finally to 2.5% in 2012. In this sense, in the long run, the sport economy has increased its influence on the economy as a whole. This was achieved on the back of advances in the commercial non-sport, voluntary, and local government sectors. Construction work for the Commonwealth Games is a major factor for current and future growth providing tangible evidence of an economic legacy. Over the years 2008-2012 sport-related employment increased by 5,000 FTE employees. It is unclear how much is Commonwealth legacy and how much is due to the recover from the recession, however it is safe to assume that at least 1,000 jobs have been created by the Games. This is in line with the legacy forecasts of around 1,000 jobs per year based on the Scottish Government’s Input-Output model of the economy⁷.

3.6 Summary of income and expenditure flows

Table 3.6 summarises the income and expenditure flows for the seven sport-related sectors in 2012. The majority of income is generated in the commercial non-sport sector, accounting

⁷ Scottish Government: An evaluation of Legacy from the Glasgow 2014 Commonwealth Games-Pre Games Report (2014)

for £1,477m. This is followed by the commercial sport sector (£1,132m) and the consumer sector (£1,130m).

Within the commercial sport sector, 61% of generated income comes from retailing. This consists mainly of sport equipment, clothing, footwear, and sales of sport-related books, magazines, newspapers and DVDs.

On the expenditure side, by far the most important category is the consumer sector accounting for £2,120m of expenditure. This is followed by the commercial non-sport (£1,498m) and commercial sport (£1,044m) sectors.

Table 3.6 Sport-related income and expenditure flows, 2012, current prices

	Income	Expenditure
	£m	£m
Consumer	1,129.9	2,119.6
Commercial sport	1,131.7	1,044.2
of which:		
Spectator sports	172.3	170.3
Participation sports	25.0	18.5
Retailing	695.8	601.4
Voluntary	440.6	231.1
Commercial non-sport	1,476.5	1,498.0
Central government	947.0	386.0
Local government	429.4	644.7
Outside the area	580.1	181.6

4. The sport economy in context

4.1 Spending, output and employment

Tables 4.1 to 4.3 compare Scotland (2012) to Wales (2010), and to the nine English regions (2008) in terms of sport-related consumer spending, value added and employment. Table 4.1 refers to consumer spending; table 4.2 refers to value added, while the last table presents the picture of sport-related employment. Although we don't have regional English data for 2012, the **percentage** 2008 structure (which changes slowly) can provide a comparison between the Scottish and English sports economies.

From Table 4.1 it can be seen that the share of consumer spending on sport-related goods and services for Scotland ranks a shared second (2.6%) compared to the English regions and Wales. In absolute terms the level of sport-related consumption in Scotland is £399 per person, greater than the level in Wales and most English regions.

Similarly, according to Table 4.2, the sport-related output in Scotland (£2,128m) ranks joint first in terms of share of overall national GVA compared to the English regions and Wales. Despite a general economic disadvantage compared to the English GVA in terms of the absolute figure, the sport-related share of output does not lag behind.

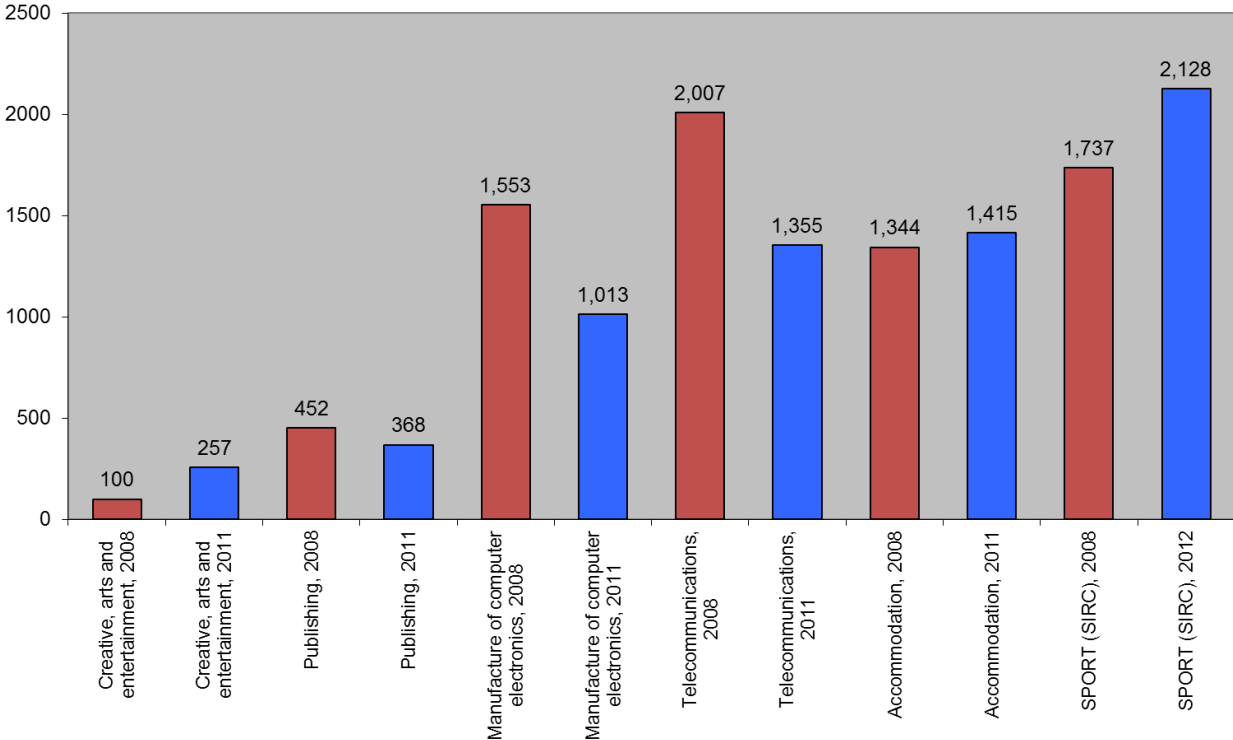
Finally, according to Table 4.3, the share of sport-related employment in Scotland (2.5%) is ranked first compared to the nine English regions and Wales. To a large extent this is the result of preparations for the 2014 Commonwealth Games. Both the absolute and comparative statistics indicate that sport in Scotland has recovered from the recent recession and has helped to inject economic growth in the national economy.

4.2 Sport and leisure industries

Figure 4.1 below provides a comparison between the Gross Value Added produced by sport and the gross value added produced by other leisure-related industries in Scotland. The statistics are taken directly from the regional Annual Business Survey (ABS). The latest regional data from ONS are for the year 2011. The 2011/12 statistics are represented by blue bars while, for comparison, the 2008 equivalents are represented by red colours. The other-than-sport GVA estimates of ABS were increased by a factor of 1.33 according to the recommendations of ONS. We considered the categories: Creative Arts and Entertainment (including: performing arts, supporting activities, artistic creation, operation of arts facilities), Publishing (including: publishing of books, newspapers, journals, sound recordings), Accommodation (including: hotels, holiday and other short stay accommodation, camping grounds), Manufacture of Computer Electronics, and Telecommunications (including wired, wireless and satellite telecommunication activities). Sport is represented as gross value added derived from SIRC for the benefit of this report. For the year 2012, sport-related GVA is £2,128m, which is greater than all the aforementioned categories. Additionally, in 2012, sport has greater economic importance (in terms of generated GVA) than the sum of 'Accommodation', 'Creative Arts', and 'Publishing'. Since 2008 the sport-related GVA

increased by 22%. The constant growth in sport's output contrasts with the decline in Telecommunications which decreased from £2,007m in 2008 to £1,355 in 2011 and to publishing which also declined by 19% in the aforementioned period. Only the 'explosion' in creative arts and entertainment can be favourably compared to the growth of the sport economy. The Scottish sports economy, in terms of GVA, improved its position within the general economy. The construction activity of the Commonwealth Games is contributing to increasing growth and economic stability. It is the first time that sport-related employment reaches 2.5% of total employment (FTE), a percentage which is expected to approach 3% in subsequent years.

Figure 4.1: GVA Scotland for sport and other leisure related sectors, £m



Sources: Annual Business Survey, SIRC

Table 4.1: Summary of sport-related consumer spending in Scotland (2012), Wales (2010), and the English Regions (2008)

	East	East Midlands	London	North East	North West	South East	South West	West Midlands	Yorkshire & Humber	Wales	Scotland
	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
Sport clothing and footwear (£m)	429.6	293.0	633.0	164.9	417.6	520.2	347.6	441.4	290.6	226.9	521.5
Sports goods (£m)	155.6	118.2	229.2	44.3	133.9	137.0	115.7	100.6	81.0	61.9	111.7
Participation subscriptions and fees (£m)	443.6	248.1	518.8	126.1	379.0	524.2	396.2	279.6	258.9	124.6	253.2
Admissions to events (£m)	82.1	45.9	96.1	23.4	70.2	97.1	73.4	51.8	47.9	22.3	54.3
Sport-related gambling (£m)	350.13	237.5	369.5	214.6	350.2	385.8	278.0	610.7	303.7	140.7	398.9
Other sport-related spending (£m)	854.6	455.6	882.5	255.2	710.1	904.2	600.6	651.9	553.0	326.7	780.1
Total expenditure on sport (£m)	2,315.6	1,398.4	2,729.1	828.5	2,060.9	2,568.4	1,811.6	2,135.9	1,535.2	902.8	2,119.6
Per capita sport spending (£)	404.2	315.5	358.1	321.7	299.7	306.5	347.8	394.7	294.5	300.3	398.9
Proportion (%) of total consumer expenditure	2.6%	2.4%	2.1%	2.6%	2.2%	1.9%	2.3%	2.9%	2.2%	2.4%	2.6%

Table 4.2: Summary of sport-related output in Scotland (2012), Wales (2010), and the English Regions (2008)

	East	East	London	North	North	South	South	West	Yorkshire	Wales	Scotland
	East	Midlands	London	East	West	East	West	Midlands	& Humber	Wales	Scotland
	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
Commercial sport	664.9	358.8	740.3	190.9	496.0	752.0	344.2	470.1	309.8	174.6	417.0
Spectator sports	83.9	66.8	178.7	73.7	187.2	135.5	75.64	90.0	55.7	37.1	119.1
Participation sports	67.4	31.5	121.9	15.4	55.9	80.6	60.43	43.7	26.3	11.3	10.7
Retailing	215.7	112.6	282.1	60.3	149.6	194.6	135.82	180.6	136.7	85.9	195.9
Manufacturing	77.2	46.2	75.6	24.7	58.9	65.8	39.5	54.9	58.5	22.1	54.6
TV and Radio	34.6	27.0	81.2	15.9	42.6	50.0	32.3	32.4	31.6	18.2	36.5
Commercial non-sport	1,085.6	705.8	1,294.8	444.7	1,085.5	1,273.4	858.1	1,115.2	772.5	466.4	1,122.2
Voluntary sector	302.6	160.7	333.4	91.6	247.7	332.4	260.6	214.4	166.5	97.7	249.3
Public sector	187.4	150.1	222.1	90.6	253.0	233.9	143.1	139.9	175.6	158.5	339.0
Total sport-related economic activity	2,240.5	1,375.3	2,590.5	817.8	2,082.3	2,591.6	1,606.0	1,939.6	1,424.5	897.1	2,127.5
Sport GVA as % of total GVA	2.0%	1.7%	1.0%	2.0%	1.7%	1.4%	1.6%	2.0%	1.6%	2.0%	2.0%

Table 4.3: Summary of sport-related employment in Scotland (2012), Wales (2010), and the English Regions (2008)

	East	East Midlands	London	North East	North West	South East	South West	West Midlands	Yorkshire & Humber	Wales	Scotland
	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)
Commercial sport	25.2	12.5	20.9	7.2	18.8	25.5	12.7	18.1	9.8	5.4	11.9
Spectator sports	3.9	2.9	5.5	3.7	9.0	5.9	3.7	4.2	2.9	1.7	4.2
Participation sports	3.0	1.3	3.6	0.7	2.5	3.3	2.8	1.9	1.3	0.2	0.4
Retailers	6.5	3.4	8.6	1.8	4.5	5.8	4.1	5.4	4.0	2.5	4.9
Manufacturing	2.3	1.0	1.5	0.6	1.6	1.3	0.9	1.8	0.5	0.6	1.5
TV and Radio	0.8	0.8	1.7	0.5	1.2	1.2	1.2	1.2	1.2	0.5	0.9
Commercial non-sport	23.8	16.5	20.7	11.1	25.3	26.0	20.1	26.1	18.5	11.9	24.6
Voluntary sport	6.2	3.4	4.9	2.2	5.8	7.0	5.7	4.9	4.5	2.4	4.8
Public sector	6.8	5.4	6.3	3.4	9.7	8.1	5.5	5.1	7.0	6.3	11.1
Total jobs in sport	62.1	37.9	52.8	24.0	59.5	66.7	44.0	54.2	39.8	26.0	52.3
Proportion (%) of total employment in sport	2.2%	1.8%	1.4%	2.1%	1.9%	1.6%	1.7%	2.2%	1.6%	1.8%	2.5%

5. Appendices

A1: Statistical sources

Sources of data used in the model include the following publications:

- Annual Survey of Hours and Earnings
- Consumer Trends
- Travel Trends
- Family Spending
- Local Government Finance statistics
- Annual Business Survey
- New Earnings Survey
- **sportscotland** Annual Report
- Regional Accounts
- National Travel Survey
- Labour Trends
- Housing and Construction Statistics
- UK National Accounts
- BBC Annual Report and Accounts
- PRODCOM Annual Industry Reports
- HM Customs and Excise Report
- Monthly Digest of Statistics
- Financial Statement and Budget Report
- Horserace and Betting Levy Board Report
- Government's Expenditure Plans
- Deloitte: Annual Review of Football Finance
- BSkyB Annual Report
- Labour Force Survey

A2: Model output

Consumer expenditure on sport-related goods & services, 2012	
	£million
Admissions	54.3
Sports goods	111.7
Bicycles	85.3
Boats	115.0
Participants sports subscriptions & fees	253.2
Clothing sales	370.0
Footwear sales	151.4
Repairs and laundry	2.1
Travel	105.2
Books and magazines	13.5
Newspapers	40.9
Video: purchase and rental	1.6
BBC licence	37.3
TV and video rental, cable & satellite subscriptions	303.0
Internet subscriptions	5.3
Skiing holidays	65.1
Independent schools	5.8
Gambling: football pools	12.2
Horse racing	349.9
Raffles and gaming.	36.7
Total	2,119.6

Commercial sport income, 2012

£ million

Spectator clubs:

Admissions	52.0
Sponsorship & advertising	65.6
Corporate entertainment	11.7
Horserace Betting Levy	6.2
TV rights	31.3

Participation clubs:

Subscriptions & fees	19.5
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Retailers (net of Vat):

Equipment	210.8
Clothing and footwear	429.3
Books, newspapers and magazines & videos	55.7
Exports and manufacturers' sales of clothing, footwear & equipment	158.3

TV and radio:

BBC	37.3
Commercial	34.3
Exports	3.1
Internet subscriptions	4.4

Total income	1,119.9
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Commercial sport expenditure, 2012

£ million

Current factor expenditure

Spectator clubs:

Wages	115.4
Other inputs	54.8

Participation:

Wages	9.7
Other inputs	8.8

Retailers:

Wages	101.5
Other inputs	499.9

Manufacturers:

Wages	32.8
Other inputs	103.7

TV and radio:

Wages	34.8
Other inputs	21.0

Total factor expenditure

Total wages	294.3
Total other inputs	688.3

Total factor surplus 122.5

Total value added 416.8

Current transfers

Corporation tax	14.5
Rates	12.5

Capital expenditure

Investment 34.7

Total expenditure leaving sector 1,044.2

Voluntary sector income, 2012

£ million

Factor income (monetary)

Players' subscriptions and match fees	141.8
Equipment	1.6
Sponsorship and advertising	44.6
Raffles and gaming machines	36.7
Bar receipts	224.7
Subtotal (factor income)	449.5

Other monetary income

Grants	86.0
Foundation for Sport and Arts	0.7
Employers' subsidies	60.7
Interest	8.6
Lottery awards	10.2
Lottery partnerships	12.2
Total monetary income	403.2
(excluding bar receipts)	

Voluntary sector expenditure, 2012

£million

Factor expenditure

Wages	139.3
Ground hire and rents	19.5
Equipment	1.6
Other	34.9
(Bar purchases)	157.3

Subtotal (factor expenditure) 352.6

Rates 10.9

Interest 1.8

Investment 23.1

Total monetary expenditure 231.1

(excluding bar purchases)

Commercial non-sport income, 2012

£million

Receipts net of tax from consumer spending:

Travel	23.0
Gambling	327.6
Skiing	28.6
Independent schools	4.6
TV rental, cable & satellite subscriptions	242.4

Sales of current inputs to:

Central government	27.4
Local government	97.9
Commercial sport	506.6
Voluntary sector	37.7
Interest from voluntary sector	1.8

Sales of capital inputs to:

Local government	139.3
Commercial sport	20.8
Voluntary	18.5
Promotion expenditure for sponsorship (intra-sectoral flow)	153.9

Total income **1,476.5**

Commercial non-sport expenditure, 2012

£million

Producers of inputs to sport:

wages	722.7
imports	369.7
(factor surplus)	399.5
(value added)	1,122.2

Corporation tax	47.1
Rates	33.7

Purchases of inputs from sport:

Sponsorship and advertising	165.7
ITV and radio advertising	34.3
Corporate entertainment at sports events	11.7
Employees' sports subsidies	10.1
Horserace Betting Levy	6.2
Interest payments to voluntary sector	8.6

Promotion expenditure for sponsorship:

(to elsewhere in commercial non sport sector)	153.9
Cost of the rights to top league matches	31.3
Lottery awards	31.0
Lottery partnerships	25.9

Total expenditure leaving sector	1,498.0
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Central government income, 2012

	£ million
Taxes:	
on expenditure	441.8
on incomes generated in:	
commercial sport	93.6
voluntary sector	38.5
commercial non-sport	269.2
local government	84.4
Total income	947.0
Lottery awards	6.2
Lottery partnerships	4.2

Central government expenditure, 2012

	£ million
Transfer payments	
Grants	72.4
Grant support for local government expenditure on:	
sport (net spending)	125.5
education	92.5
Foundation for Sport and Arts	0.9
Factor expenditure	
sportscotland: capital spending, wages and other inputs	23.5
Other spending: royal parks	
wages and other inputs	6.0
Total	386.0

Local government income, 2012

£ million

Local authority sports facilities:

fees and charges	69.7
sales of equipment	38.8
ground hire	9.8

Grants from central government:

to fund net expenditure on sport	125.5
sport education	92.5
via sportscotland	10.9

Rates:

voluntary sector	10.9
commercial sport	12.5
commercial non-sport	33.7

Payments for policing 1.6

Lottery awards 14.3

Lottery partnerships 9.3

Total income 429.4

Local government expenditure, 2012

£ million

Current expenditure

Direct gross expenditure:

Wages 160.0

Other current expenditure 136.3

Education:

Wages 113.7

Research 4.2

Local transport and policing:

Wages and other inputs 32.0

Grants to voluntary clubs 24.5

Capital expenditure

Investment 174.2

Total expenditure 644.7

Outside the area income, 2012

	£ million
Sports, clothing, footwear and equipment	125.2
Import content of skiing	23.4
TV imports	5.3
Prize income	23.6
Import content of UK production of:	
Sport-related goods and services	32.9
Commercial non-sport sector output	369.7
Total income	580.1

Outside the area expenditure, 2012

	£ million
Sports, clothing, footwear and equipment	144.1
Admissions to sports events	10.7
TV exports	3.1
Prize income	23.6
Total expenditure	181.6

Value added by sport-related economic activity, 2012

	£million	Index
Commercial sport:		
Wages	294.3	
Surplus	122.5	
Total	417.0	19.6
Voluntary sector:		
Wages	139.3	
Surplus	96.9	
Lottery projects	13.1	
Total	249.3	11.7
Commercial non-sport:		
Wages	722.7	
Surplus	399.5	
Total	1,122.2	52.7

Central government:		
Wages	13.5	
Lottery projects	6.1	
Total	19.6	1.0
Local government:		
Wages (education)	113.7	
Wages (sports facilities)	160.0	
Wages (transport and policing)	32.0	
Lottery projects	13.8	
Total	319.4	15.0
Total value added	<u>2,127.5</u>	100.00

Employment, 2012

Employment ('000s)

Sector

Commercial sport

Spectator clubs	4.2
Participation clubs	0.4
Retailers	4.9
Manufacturing (exports)	1.5
TV and Radio	0.9
Subtotal	11.9

Voluntary sport	4.8
Commercial non-sport	24.6

Central government

Administration	0.2
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Local government

Sports facilities	5.8
Education	3.8
Transport/police	1.0
Subtotal	10.6

Total	52.3
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The expenditure flows matrix, 2012 (£m)

Flows from:	Flows to:						
	CON	CS	VOL	CNS	CG	LG	OV
Consumer sector	0.0	799.1	180.1	626.3	374.9	108.4	23.4
Commercial sport	213.0	0.0	0.0	527.5	102.7	14.1	187.0
Voluntary sector	100.8	1.3	0.0	58.0	50.4	20.6	0.0
Commercial non-sport	554.7	161.3	85.8	0.0	269.2	57.2	369.7
Central government	13.5	3.1	112.9	27.4	0.0	229.0	0.0
Local government	224.3	11.1	24.5	237.2	147.7	0.0	0.0
Overseas	23.6	155.8	0.0	0.0	2.1	0.0	0.0

A3: Sources and methods

This section attempts to explain how the estimates are derived. Many are generated through the flows in the model. The flows among the sectors in the SIRC model are based on a double entry principle between income and expenditure. Data sources mostly relate to the expenditure side, especially in the case of consumers. The Outside the Area sector is treated as residual in the flow system. No data exist to adequately describe the Voluntary sector; however the income and expenditure relationships suggested by the **Survey of Sport Clubs for Scotland (CCPR, 2009 and 2011)** have been taken into account. Overall, past studies and surveys have been used to link the Voluntary sector to the sport economy. The estimation of the remaining five sectors is explained below:

Consumer expenditure

Many items of sport-related consumer expenditure are located in the Family Expenditure Survey (FES) at the UK level. Only broader categories of spending exist for UK regions. The latter are used to extract the relative statistics from the UK figures in a proportionate manner, or directly using the Essex Archives.

Admissions: They are estimated from FES. Data exist for 'Spectator sports - admission charges' for the UK as a whole and for 'Sports admissions and subscriptions' for the regions. Our estimate for 2012 comes directly from the database deposited in the Essex Archives.

Sports goods: Expenditure is estimated from FES 'Sports and camping equipment' and annual reports of major sports companies.

Bicycles: The basis of the estimate comes from Consumer Trends. This is filtered regionally according to FES. Previous economic studies were further weighting this figure according to sport use. This utility reduction (based on National Travel Survey) is now abandoned following internationally agreed definitions for sport.

Boats: The estimate is derived from a SIRC model for the sector based on statistics from the British Marine Federation.

Participant sports subscriptions and fees: Expenditure is estimated using the FES categories: 'participant sports excluding subscriptions' and 'subscriptions to sports and social clubs'.

Clothing and footwear sales: The estimate is based on a SIRC model, annual reports from sports companies and statistics from Consumer Trends and FES.

Sport-related travel: This is derived from a SIRC model based on NTS statistics and the publication Consumer Trends.

Books, magazines and newspapers: Statistics are based on FES and Consumer Trends.

Video and DVDs purchase and rental: Based on statistics from FES and the British Video Association.

BBC licence: Expenditure is derived from the sport-related content of the BBC licence. It is based on data from the BBC annual report, a SIRC model and the number of households.

TV rental, cable and satellite subscriptions: The basic estimate is derived from FES. Its sport-related element is derived by using BSkyB and BBC statistics.

Sport-related gambling: The basis of the estimates is the UK figure which is derived from official HM Customs and Excise data. A model by SIRC is used to ensure that the value of the overall gambling sector corresponds to the Consumer Trends statistics. Subsequently the regional element is derived by using FES and the number of households. For the year 2012, a small overestimation exists compared to the Consumer Trends figures as ONS have not yet internalised the existing data on remote betting.

Commercial sport income

Spectator club admissions: This is a flow of income coming from the domestic consumer sector and the overseas visitors to Scotland. Data from FES and HM Customs and Excise have been used. Income from Tourists is estimated from Travel Trends and the Digest of Tourist Statistics.

Sponsorship: Most of this income comes from the Commercial Non Sport sector. Various sources are used from the SIRC archive and the current KeyNote report. We also assume that the sponsorship market is associated with the size of the spectator sports industry.

Horserace betting levy: This statistics is calculated using data from the Horserace Betting Levy Board Annual Report and population statistics from Population Trends.

Cost of the rights to top league matches: The basic estimate is derived from BSkyB statistics and newspaper reports.

Subscriptions and fees: This is derived from the income and expenditure flows in the model.

Retailing: Income from retailing is associated with consumer expenditure on sport-related equipment, clothing, footwear, books, newspapers, magazines and DVDs. A part of this expenditure is flowing towards Local Authorities, while VAT is going to the central government.

Exports: Income from exports is estimated using trade assumptions based on Input-Output tables for wider (than sport) sections of the economy. These ratios are applied on the sport-related consumer spending.

TV and radio: Income in the case of BBC comes directly from the license fee. Only the sports-related part is considered.

Commercial sport expenditure

Wages: The calculation of wages is based on the flow of income to the sector and the existing Annual Business Survey data that relate wages to total income. This method of calculating wages is repeated in all sectors of the sport economy.

Other inputs: In the case of spectator and participation clubs an estimation of profits is required. Then 'other inputs' is the residual income after profits and wages have been accounted for. In the case of retailers, 'other inputs' can be estimated directly through statistics from the Input-Output tables and the ABS at regional level.

Investment: In a similar way investment is estimated as a ratio of the generated value added in each sub sector. We do some assumptions so that we end up with the best possible estimates given the existing information. For example the share of investment out of value added in the sport retailing sector is assumed to be the same as in the retailing sector as a whole.

Commercial non-sport income

Income coming from consumer spending (net of tax): This is determined according to the flows of consumer expenditure. For example in the case of gambling, consumer spending is directed towards government as taxes and towards the Commercial Non-Sport sector as income.

Sales of current inputs to other sectors: These are determined again from the flows of the model. For example sales to the commercial sport sector are identified from a part of the commercial sport spending. The latter is directed either to the Commercial Non-Sport sector or overseas. This distribution is determined from the Input-Output tables and the per sector statistics of regional ABS.

Sales of capital inputs to other sectors: They are related to the capital expenditure of the Local Government, Commercial Sector and Voluntary sectors. Some information exists in ABS although the absolute implied figure is not reliable.

Commercial non-sport expenditure

Wages: Spending on wages is calculated as a percentage of total income accruing to the sector. This income can be expressed as wages, profits, or imports (before tax and investment decisions). The part of turnover directed towards wages is estimated from a SIRC model based on the Annual Business Survey (regional data).

Imports: They are estimated using the same method as above (wages).

Corporation tax: It is derived from the profits accruing to the sector (factor surplus, estimated as above) and the tax rate, estimated from the National Accounts (Blue Book).

Rates: The estimate is based on the value added generated in the sector and a model estimating rates as a percentage of value added for the two commercial sectors.

Sponsorship and advertising: They are estimated using non-official statistics and a SIRC model. Some independent information can be found in KeyNote and Mintel reports.

Lottery awards: They are estimated using data from DCMS and the Lottery Fund Accounts of the Sports Council.

Central government income

Income accruing to the central government is mainly in the form of taxation. These estimates are determined from the tax rates and the flows within the model.

Central government expenditure

Grants via Sports Council: Data are provided by the Sports Council's annual accounts.

Wages: Estimates are provided from the Sport Council's annual accounts.

Support for local government expenditure: It is determined in the local government income below.

Local government income

Fees and charges: The estimates are based on the Scottish Local Government Financial Statistics and on a SIRC model for the sector.

Sales of equipment: This is derived from a part of consumer spending on sport equipment above.

Grants from central government: Using the HM Treasury Budget Report, an estimate of grants from central government as a percentage of Local Authority receipts is derived. This is then applied to local government expenditure categories.

Rates: This is tax income received from the voluntary, commercial sport and commercial non-sport sectors. The estimates are derived from the flows of the SIRC model.

Local government expenditure

Total expenditure on sport services: This is derived from the Scottish Local Government Financial Statistics and a SIRC model for processing the data. This is then distributed into wages and other inputs.

Education: Spending on Education is derived from the Blue Book and the Government's Expenditure Plans (DES).

Capital expenditure: This is based on statistics from the Blue Book (table 5.3.7).

A4: Definitions

1. National Income Accounting

The concepts of National Income Accounting were developed for macro-economic analysis in the 1930s and 1940s. The basic principle is that there is accounting equality between total output, total income and total expenditure. The most common definitions of total output in the economy as a whole are the Gross Domestic Product (GDP) and Gross Value Added (GVA). For example, assume that the total output in a factory producing football boots is £100m. This is equivalent to the income generated as wages (say £60m) as profits (say £10m) and as flow to the companies, selling inputs (£30m) required in the production. In this example, GVA is the sum of wages and profits. Further, total income will also be identical to total expenditure because output that is not sold in the current financial year is treated as investment expenditure.

2. Gross Value Added (GVA)

GVA is the difference between total output (based on wages and profits) and the cost of inputs used in the production process (raw materials and services). Alternatively, it can be expressed as:

$GVA = GDP - \text{taxes on products} + \text{subsidies on products}.$

GVA shows the contribution of the sports sector to the economy as a whole.

3. Sport

We follow the definition employed in the publication Sport Market Forecasts⁸. Sport is divided into the following sectors: sport clothing and footwear, sport equipment, health and fitness, other participant sports, boats, spectator sports, sport gambling, sport TV and video, sport-related publications and sport-related travel.

4. Employment

This shows full time equivalent (FTE) jobs. In this case two half-time jobs are measured as one full time equivalent. It is derived by dividing the wage bill of a sector by the associated full time wage (excluding overtime) from ASHE.

⁸ Sport Market Forecasts, 2011-2015, SIRC.