Research

Economic importance of sport in Scotland 1998 – 2008

September 2011 | Sport Industry Research Centre | Sheffield Hallam University

Putting sport first

sportscotland
the national agency for sport

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Executive summary

- This report is part of **sport**scotland's ongoing commitment to build the evidence of the economic value of sport. The research has been carried out by The Sport Industry Research Centre (SIRC) at Sheffield Hallam University.
- 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 to Scotland based on the latest economic data which is 2008, providing comparisons with estimates from earlier years and English regions. Unless specified, the analysis is conducted in market prices.
- The methodology employed in this report is based on national income accounting and the income and expenditure flows between sub-sectors of the economy. By using the latter we can derive a monetary value for the sport production (value added) which is consistent with the national statistics frame work and crucially avoids the problem of double counting.
- In 2004 and 2008 consumers spent £1,567m and £1,830m on sport respectively at current prices. Consumer expenditure on sport as a percentage of total expenditure (2008):
    - Scotland: 2.5%
    - England: 2.3%

Figure 1
Sport consumer expenditure in Scotland, 2008

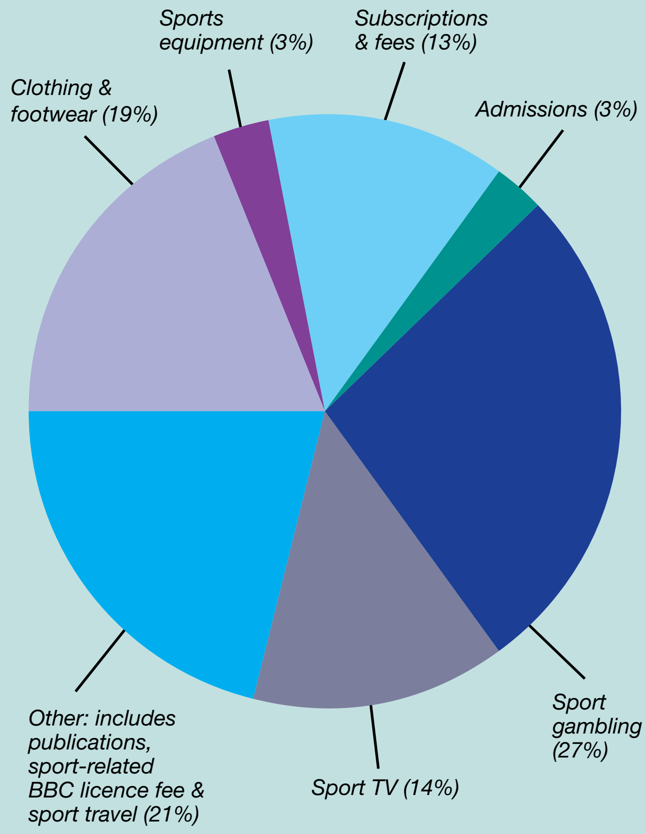
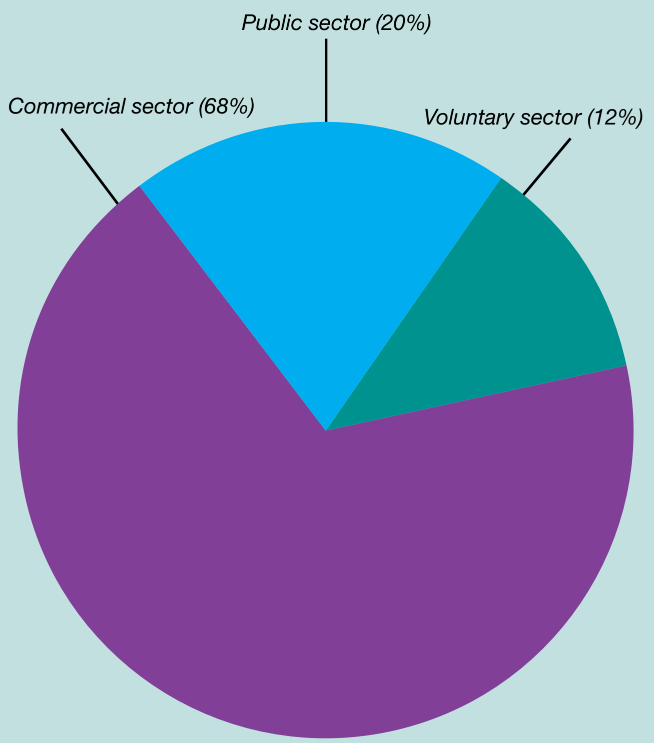


Figure 2
Sport employment in Scotland, 2008



- There has been a continuous rise in the share of sport related employment, as percentage of total spending from 1998 to 2008. Sport related employment held its ground during the initial phase of the recession.
- Sport related economic activity generated £1,537m and £1,737m in 2004 and 2008 respectively based on current prices. This is equivalent to 1.7% of total value added in Scotland (2008). The importance of sport, in terms of GVA, increased from 1.5% of the national economy in 1998, to 1.7% in 2008. The recession negatively affected the profit margins in the commercial sector. Sport and associated industries are estimated to account for 51,500 full time equivalent jobs in Scotland corresponding to 2.0% of total employment (2008). This compares favourably to England (1.8%). The vast majority of sport employment comes from the commercial sector.
- The five Scottish ski resorts are major factors for winter tourism and are developing into centres for mountain biking in the summer months.
  Event tourism, football and golf have resulted in a continuous rise in the economic importance of sport in the last ten years. Golf within the sport sector in Scotland is among the strongest globally and with the greatest potential for future growth. It attracts significant private investment, partly because Scotland is the birthplace of the modern game, and it generates spill-over benefits between local economies. Private investment on golf exceeded £100m in 2008. Golf on its own generates £123m of the Scottish GVA. This is equivalent to supporting 3,800 jobs.

1. Introduction

1.1 Terms of reference

This report has been prepared by the Sport Industry Research Centre (SIRC) at Sheffield Hallam University on behalf of **sport**scotland. The purpose of the report is to provide an estimate of the economic importance of sport in Scotland. It builds on similar research carried out by SIRC in 2004 and 2001 that measured the value of the sport economy in Scotland. We modified the model to enhance the use of ABI supply related statistics.

Selected comparisons have been made with previous studies to illustrate the change in the importance of sport to the Scottish economy. This report informs about the direct economic contribution of sport to the national economy and, in doing so, it enhances the monitoring of progress under the **sport**scotland's corporate plan 20011-2015. The full effect of the recession is as yet unknown but this report captures in percentage terms the effect of the 2008 recession.

1.2 Methodology

The SIRC model of economic impact assessment, uses as its basic input – where possible – economic variables from official statistics. 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 good manufacturers and retailers. In this sector we would classify companies such as Nike, JJB and football clubs. We also include a section of the media where a sport product/ service is produced such as sport TV, sport publications etc.
- **Commercial non-sport** including 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. An example is a bank sponsoring a football club. The advertising 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. Professional football clubs are not included in this category even if they are managed on a non-profit basis.

- **Local government** including income from local government 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 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 every expenditure flow from sector A to sector B is also an income flow in the sector B accounts. 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.

The method used is consistent with the Office for National Statistics (ONS) estimate, as reported in the publication Consumer Trends.[1] Inflation adjustment has been used for comparisons of the year 2008 with past data. The sport generated product (GVA) as percentage of the total product is usually the most important statistic to consider.

[1] *Consumer Trends Quarter 1 2010 (ONS)*

1.3 Sport in Scotland

sportscotland's new corporate plan 2011-2015 has one clear focus: to invest time, expertise and public funding in developing and consolidating a world class sporting system at all levels.[2] This is driven by the belief that sport has the power to enrich and enhance Scotland, its people and communities. This will be done through the programmes supported by **sport**scotland including school sport, club sport, high performance, people, places and partnerships and planning.

Strong emphasis is placed on school sport through Active Schools which runs across every local authority in Scotland. The success measure for **sport**scotland in relation to Active Schools is 'increased sports opportunities for children and young people through schools and improved access to the school estate'.

Reaching Higher: Building on the success of sport 21 is the Scottish Government strategy that sets out the long-term objectives of sport until the year 2020 and plans for delivery and evaluation. It explores how sport in Scotland could be strengthened to ensure that the benefits and opportunities offered by the London Olympics and the Glasgow Commonwealth Games could be extended across the wider population. The national strategy puts particular emphasis on:

- strengthening links between sport governing bodies and sharing resources and expertise
- investing in club development
- improving coach education
- making greater use of the school estate for the provision of sport facilities
- providing a wider range of sport opportunities at an early age.

Within the greater Scottish Government economic strategy, sport is seen as a means towards creating conditions for attracting and retaining skilled workers in Scotland.

There is a strong element of golf, rugby and cycling in Scottish sport. Golf attracts high levels of private investment and revenue through event tourism.

[2] *Developing a world class sporting system: **sport**scotland corporate plan 2011-2015*

2. The sport economy in Scotland

2.1 Summary of key indicators

Table 2.1 summarises the most important sport-related indicators for Scotland, namely consumer expenditure, gross value added (GVA) and employment for the years 1998, 2001, 2004 and 2008. The table also draws comparisons with the UK or England. The estimate for total consumption expenditure is derived using Family Spending and Consumer Trend statistics.

According to Table 2.1, over £1.8 billion was spent on sport-related goods and services in Scotland in 2008. In the same year, consumer expenditure on sport accounts for 2.5% of the total expenditure in Scotland, which is higher than the national average for England (2.3%).

During the period 2004-2008, the proportion of consumer spending on sport within the economy decreased from 2.7% to 2.5%. However, there has been an overall increase from the 2.2% level of 1998.

In 2008, sport-related economic activity added over £1.7 billion to the Scottish economy, which, in current prices, represents an increase of 13% over the year 2004. The contribution to GVA by sport in Scotland has increased from 1.5% in 1998 to 1.7% in 2008. However, because of the recession, the GVA percentage declined slightly since 2004 (1.9%).

Sport-related employment in Scotland grew from 45,500 in the year 2004 to 51,500 in 2008. As a percentage of total employment, the contribution of sport in Scotland increased from 1.8% in 2004 to 2.0% in 2008. This is a higher figure than that of England where, in 2008, sport employment as a percentage of total employment reached 1.8%.

Table 2.1: Main sport-related indicators for Scotland

	1998	2001	2004	2008
Consumer expenditure on sport (£million), current prices	**1,019**	**1,266**	**1,567**	**1,830**
percentage of Scottish total	2.2	2.5	2.7	2.5
UK average, % (England in 2008)	*2.3*	*2.4*	*2.6*	*2.3*
Gross value added by sport (£million)	**965**	**1,196**	**1,537**	**1,737**
percentage of Scottish total	1.5	1.7	1.9	1.7
UK average, % (England in 2008)	*1.5*	*1.6*	*1.6*	*1.5*
Sport related employment (thousands)	**37.3**	**42.0**	**45.5**	**51.5**
percentage of Scottish total	1.5	1.7	1.8	2.0
UK average, % (England in 2008)	*1.4*	*1.5*	*1.6*	*1.8*

Table 2.2: Sport-related consumer spending in Scotland (£m, current prices)

	1998	2001	2004	2008
Sport clothing and footwear	246	277	336	356
Sports goods	78	127	108	51
Participation subscriptions and fees	204	261	279	236
Admissions to events	51	54	62	48
Sport-related gambling	168	173	312	490
TV/video rental, cable and satellite subscriptions	83	124	167	264
Other sport-related spending	189	350	303	385
Total	**1,019**	**1,266**	**1,567**	**1,830**

2.2 Consumer spending

Table 2.2 summarises the value of sport-related consumer spending in Scotland. The estimates are consistent with the total reported in the ONS Consumer Trends publication.

The summary table above shows that the total value of sport-related consumer spending was £1,830 million in 2008, representing an increase of 17% over the year 2004 based on current prices. Sport clothing and footwear is the single largest participation related category of consumer spending on sport, accounting for £356 million or 19% of the market in 2008. The combined participation-related sectors of subscriptions and fees (£236 million), sport goods and sport wear account for 35% of the market.

The spending associated with the three aforesaid participation-related categories increased by 22% from 1998 to 2008, but only sport clothing and footwear increased from 2004 to 2008.

However, the most important changes occurred in gambling and TV services. Gambling accounted for £490 million or 27% of the market in 2008. The increase (283%) in sport-related gambling expenditure during the period 2001-08 can be explained by the abolition of gaming tax.

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 2.3: Sport-related consumer spending in Scotland (£m, 2006 prices)

	1998	2001	2004	2008
Sport clothing and footwear	203	250	323	371
Sports goods	72	121	104	49
Participation subscriptions and fees	309	326	276	211
Admissions to events	69	63	68	43
Sport-related gambling	198	192	335	462
TV/video rental, cable and satellite subscriptions	112	172	182	249
Other sport-related spending	222	283	327	343
Total	**1,185**	**1,407**	**1,615**	**1,728**

2.3 Consumer spending in 2006 prices

Table 2.3 summarises the value of sport-related consumer spending in Scotland using 2006 prices. The estimates are consistent with the price indices for sport produced in the publication Sport Market Forecasts 2010-2014 and overall with the Consumer Price Index.

During the period 2004-2008, sport related consumer spending increased by 7% in real terms. This is a strong performance, especially since the economic recession had influence by the end of 2008.

However, this increase was not observed equally throughout the sport economy. The consumer market was driven by sports clothing and footwear, gambling and sport TV, each one of them increasing by 15%, 38%, and 37% correspondingly, during the 2004-2008 period. The market that suffered mostly from the emerging recession was sports goods which declined by 47% during the aforementioned period.

Table 2.4: Sport-related value added in Scotland (£m, current prices)

	1998	2001	2004	2008
Commercial sport	256	325	382	298
of which: Spectator sports	*29*	*62*	*72*	*71*
Retailing	*156*	*177*	*215*	*120*
Commercial non-sport	472	553	767	1,025
Voluntary sector	120	161	205	181
Public sector	116	158.5	183	233
Total	**965**	**1,196**	**1,537**	**1,737**

2.4 Sport-related output

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 in the sector. Table 2.4 summarises the value added by sport in Scotland. According to the table, sport-related economic activity increased from £1,196 million in 2001 to £1,737 million in 2008, based on current prices.

The majority of this economic activity (£1,025 million, 59%) is generated by the commercial non-sport sector. The next largest sector is commercial sport (£298 million, 17%). Approximately two-thirds of the valued added in this sector is attributable to spectator clubs and retailing. The latter includes sport-related clothing and footwear, equipment and publications.

The voluntary and public sectors account for the remainder (£414 million, 24%) of the sport-related economic activity in Scotland. Within the commercial sport sector, GVA produced in retailing decreased significantly in 2008 because of the recession, indicating a recession related decline in profitability.

Table 2.5: Sport-related employment in Scotland ('000s)

	1998	2001	2004	2008
Commercial sport	11.3	13.7	13.6	11.0
of which: Spectator sports	*3.0*	*3.3*	*2.9*	*4.3*
Retailing	*5.6*	*7.5*	*8.2*	*3.5*
Commercial non-sport	16.3	16.8	20.5	24.0
Voluntary sector	3.8	4.3	4.0	6.0
Public sector	6.0	7.2	7.4	10.5
Total	**37.3**	**42.0**	**45.5**	**51.5**

2.5 Sport-related employment

Table 2.5 provides estimates for sport-related employment in Scotland. The employment estimates are derived from calculations based on wage payments and average salaries per sector.

Sport and associated industries are estimated to account for 51,500 full time equivalent jobs in Scotland, accounting for 2.0% of all employment in Scotland in 2008.

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 2008, as with value added, the largest sector is commercial non-sport, supporting 24,000 jobs or 47% of all sport-related employment in Scotland.

The commercial sport, voluntary and public sectors support 21%, 12% and 20% of the nation's sport-related jobs respectively. It is significant that sport employment did not decline as percentage of total employment defying the trend in spending and GVA.

Since wages did not decline during the period 2005-08, it seems likely that this inconsistency between employment and value added was caused by declining profit margins in the commercial sector and by firms increasingly relying on part time employment to cope with the recession; in the initial period of the recession full time sport jobs remained largely unaffected.

This does not reflect a weakness of commercial operators to maintain their margins; it is rather implied by the out of scale profitability of the past, often following government legislation such as in the case of gambling. For example, the pre-tax profits of William Hill increased by 525% in 2003. This level of profitability is unsustainable in the long run. We will not see the full effect of the recession until further economic data is available.

2.6 Summary of income and expenditure flows

Table 2.6 below summarises the income and expenditure flows for the seven sport-related sectors in 2008. The majority of income is generated in the commercial non-sport sector, accounting for £1,347 million. This is followed by the commercial sport sector (£818 million) and the consumer sector (£801 million).

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 £1,830 million of expenditure. This is followed by the commercial non-sport (£1,293 million) and commercial sport (£739 million) sectors.

Over half of the expenditure within the commercial sport sector relates to current factor spending, such as wages, in the retailing sub-sector.

Table 2.6 Sport-related income and expenditure flows, 2008 (£m)

		Income	Expenditure
Consumer		800.9	1,829.6
Commercial sport		817.8	739.4
of which:	*Spectator sports*	*105*	*104*
	Participation sports	*38*	*36*
	Retailing	*496*	*426*
Voluntary		367.4	231.2
Commercial non-sport		1,346.5	1,292.7
Central government		787.1	230.9
Local government		324.1	450.5
Outside the area		493.5	119.1

3. The sport economy in context

3.1 Spending, output and employment

Tables 3.1 to 3.3 compare Scotland to the nine English regions in terms of sport-related consumer spending, value added and employment for the year 2008. Table 3.1 refers to consumer spending, table 3.2 refers to value added, while the last table presents the picture of sport related employment. Due to the lag in economic data the full effects of the recession will not be seen for a few years.

From Table 3.1 it can be seen that the consumer spending on sport-related goods and services for Scotland ranks sixth among the English regions in terms of absolute value and fourth in terms of sport related spending per person. Additionally, the proportion of total consumer expenditure made on sport in Scotland, at 2.5%, ranks fourth among the regions and it is greater than the English average.

Similarly, according to Table 3.2, the sport-related output in Scotland (£1,737 million) ranks sixth compared to the English regions. However, this level of output as a proportion of the national gross value added (GVA) (1.7%) is above the English average. Finally, according to Table 3.3, sports-related employment in Scotland (51,500) is ranked sixth compared to the nine English regions, while its importance to overall Scottish employment (2.0%) is again above the English average (1.8%).

3.2 Importance of sport in Scotland

As mentioned previously, the sport-related expenditure in Scotland is above the average English trend, as a whole, with 2.5% of total consumer expenditure in Scotland being sport-related (compared with 2.3% in England overall).

It should be noted that the economy in 2008, generally is underperforming in comparison with the UK average in terms of wages and earnings (the average earnings for men and women in Scotland are 93% and 97% of the UK national average respectively), but it is over-performing in terms of economic activity (as percentage of working age people) and employment.

This can be seen in employment: in 2008, the Scottish unemployment rate (as percentage of economically active people) was 4.2%, significantly lower that the UK's 5.4%.

Factors that influence the growth of sport in Scotland include the following:

Scotland has a well established industry surrounding skiing. There are five resorts, the biggest of them being at the Cairngorm Mountain. Visitors to the Scottish Highlands spend around £38m on snow sport supporting 500 full time jobs. However, climate change has reduced significantly the number of skier days in Scotland, forcing the hand of ski resorts to transform into 12-month destinations.

The resorts are promoted as mountain biking destinations for the summer, which is further assisted by a well developed network of cycling clubs. According to VisitScotland, and the UK Tourism Survey, mountain biking brings an estimated £65 million into the economy, attracting 197,000 visitors annually (2007). Overall, sport tourism in Scotland is estimated to be worth £700m. Since 2003, EventScotland and VisitScotland have supported the UCI Mountain Bike World Cup, hosted in Fort William.

A very large part of sport tourism is generated by golf. Relative to the population, Scotland has one of the world's strongest networks of golf courses.

China is an important emerging market, targeted for golf related holidays. At present, 11,000 Chinese visitors come to Scotland annually, bringing £7m into the national economy.

Celtic and Glasgow Rangers are two of the most wealthy European football clubs, as monitored by Deloitte. The Old Firm generates around £120m a year for the economy, producing around 3,000 jobs.[3] A large part of these are in the commercial sector within the hotel, pub and catering industries.

[3]*The University of Strathclyde, 2004.*

Event tourism is very successfully targeted in Scotland. It is a cornerstone of sports policy with obvious economic benefits. For example the World Team Badminton Championships, held in Glasgow in the summer 2007, generated £6.7m for the city, with more than half of this coming from outside Scotland. The event brought 15,000 visitors from all over the world to Glasgow.[4]

Critically, 38% of people travelling from outside Scotland to attend the event had never been in Scotland before. Other examples include the three major rugby events held at the Murrayfield Stadium, Edinburgh, generating £36m for the national economy, and the Ryder Cup coming to Gleneagles in 2014.

The 2014 Commonwealth Games, to be hosted by Glasgow, already generate investment in infrastructure that help both the city and the national economy against the economic downturn. Projects, worth £500m are planned around the Games, and over 2,500 hotel rooms will be built over the next two years.

An important project is the planned 12,000 seat new National Indoor Arena, built to designs by Foster and Partners.

In the long term, the Commonwealth Games will strengthen the position of Scotland within the UK, attracting more visitors, especially at a time of economic downturn, when domestic tourism becomes the preferable option.

The Scottish Government's legacy plans include: improving sports participation, health and fitness, to encourage learning and culture, to develop green regeneration schemes and to support business and tourism. The Games are likely to be affected to a small extent by the UK's government budgetary policy. A planned £207m rail link between the airport and the centre of Glasgow for the Games had to be abandoned.

The prospects in commercial sport are very encouraging for the future. The £750m golf development near Aberdeen by Trump International, despite the ecological issues raised is going to boost the profile of sport tourism in Scotland. It will enable Scotland to attract more tourism from China and the USA. Goals Soccer Centres, which is based in Scotland, is one of the most prominent five-a-side operators in the UK and in Europe. Five-a-side is now more popular than football, giving great prospects for further growth.

[4] *EKOS, Glasgow City Marketing Board, EventScotland, UK Sport (2008)*

The aforementioned characteristics of the Scottish sport economy give some insights on why Scotland performs, in percentage terms, better than England as a whole. This is true since 2001. To summarise the Scottish advantages lie in three areas:

- The economy, with a lesser rate of unemployment than England in 2008.
- The consumer sector, showing a greater tendency to spend on some sport services and goods than in England. According to the Living Costs and Food Survey 2008 (in Essex Archives) a Scottish household spends considerably more on Satellite and Cable TV, boats, trailers, horses, bicycles, and football pools. For example in Scotland, on average, a family spends £0.18 on football pools per week compared to £0.05 in England. The sport element of gambling is much more emphasised in Scotland than in England leading to effects on the commercial output.
- Scotland has a distinct advantage in terms of skiing, and in terms of the relative number and reputation of golf facilities. Golf within the sport sector in Scotland is among the strongest globally and with the greatest potential for future growth. It attracts significant private investment, partly because Scotland is the birthplace of the modern game, and it generates spill-over benefits between local economies. Private investment on golf exceeded £100m in 2008. Golf on its own generates £123m of gross value added. This is equivalent to supporting 3,800 jobs.

3.3 Sport and the leisure industries

Figure 3 below provides a comparison between the gross value added produced by sport and the GVA produced by other leisure related industries in Scotland. The statistics are taken directly from the regional Annual Business Inquiry.

We consider the categories: creative arts (including: performing arts, supporting activities, artistic creation, operation of arts facilities), publishing (including: publishing of books, newspapers, journals, sound recordings), restaurants, 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 2008, sport related GVA is £1,737m. Sport has greater economic importance than the sum of 'accommodation', 'creative arts', and 'publishing'.

Further, the sport sector is significantly greater, in terms of economic importance for Scotland, than 'restaurants' and 'manufacture of computer electronics'. In terms of its size, it is smaller but comparable to the Scottish 'telecommunications' sector.

Figure 3: GVA Scotland, 2008 (£m)

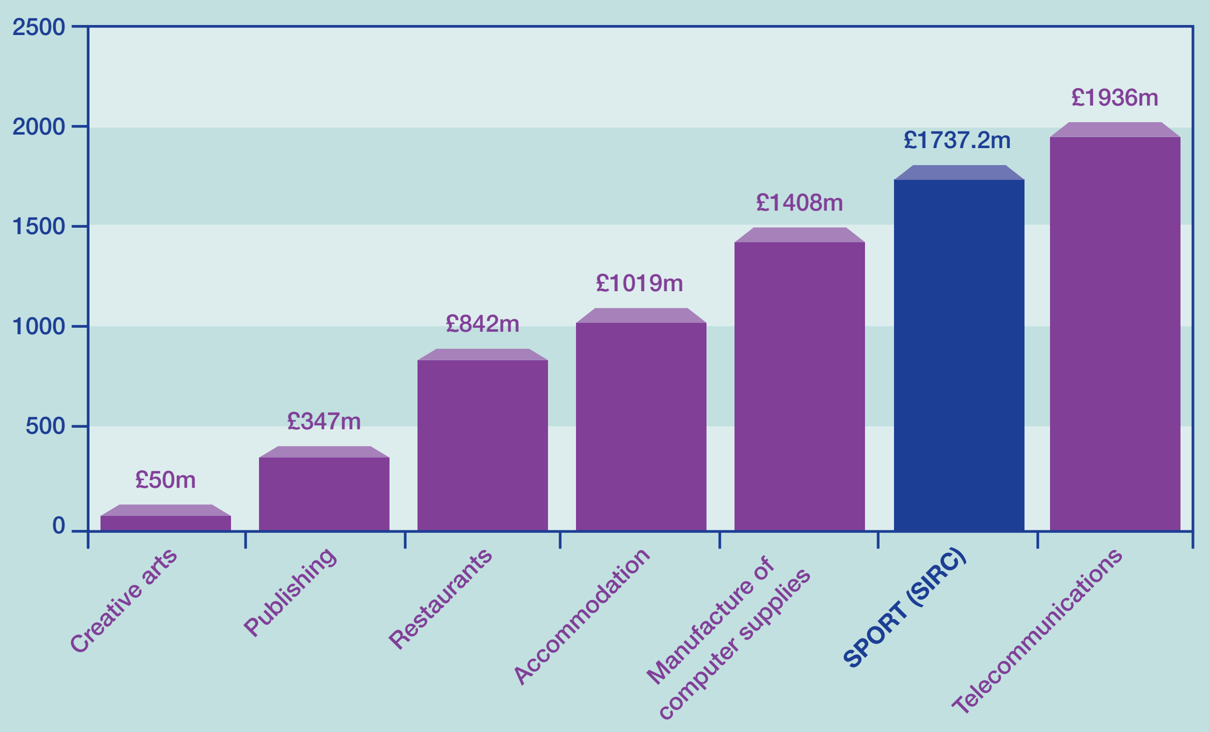


Table 3.1: Summary of sport-related consumer spending in Scotland and the English regions in 2008 (£m)

	East	East Midlands	London	North East	North West	South East	South West	West Midlands	Yorkshire & Humber	Scotland
Sport clothing and footwear	429.6	293.0	633.0	164.9	417.6	520.2	347.6	441.4	290.6	356.2
Sports goods	155.6	118.2	229.2	44.3	133.9	137.0	115.7	100.6	81.0	50.9
Participation subscriptions and fees (£m)	443.6	248.1	518.8	126.1	379.0	524.2	396.2	279.6	258.9	235.5
Admissions to events	82.1	45.9	96.1	23.4	70.2	97.1	73.4	51.8	47.9	47.9
Sport-related gambling	350.13	237.5	369.5	214.6	350.2	385.8	278.0	610.7	303.7	489.6
Other sport-related spending	854.6	455.6	882.5	255.2	710.1	904.2	600.6	651.9	553.0	649.5
Total expenditure on sport	**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**	**1,829.6**
Per capita sport spending	**404.2**	**315.5**	**358.1**	**321.7**	**299.7**	**306.5**	**347.8**	**394.7**	**294.5**	**354.0**
Proportion (%) of total consumer expenditure	**2.6%**	**2.4%**	**2.1%**	**2.6%**	**2.2%**	**1.9%**	**2.3%**	**2.9%**	**2.2%**	**2.5%**

Table 3.2: Summary of sport-related output in Scotland and the English regions in 2008 (£m)

	East	East Midlands	London	North East	North West	South East	South West	West Midlands	Yorkshire & Humber	Scotland
Commercial sport	664.9	358.8	740.3	190.9	496.0	752.0	344.2	470.1	309.8	298.2
of which: - *Spectator sports*	*83.9*	*66.8*	*178.7*	*73.7*	*187.2*	*135.5*	*75.64*	*90.0*	*55.7*	*71.3*
- *Participation sports*	*67.4*	*31.5*	*121.9*	*15.4*	*55.9*	*80.6*	*60.43*	*43.7*	*26.3*	*21.0*
- *Retailing*	*215.7*	*112.6*	*282.1*	*60.3*	*149.6*	*194.6*	*135.82*	*180.6*	*136.7*	*120.1*
- *Manufacturing*	*77.2*	*46.2*	*75.6*	*24.7*	*58.9*	*65.8*	*39.5*	*54.9*	*58.5*	*51.3*
- *TV and radio*	*34.6*	*27.0*	*81.2*	*15.9*	*42.6*	*50.0*	*32.3*	*32.4*	*31.6*	*32.7*
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	1,024.5
Voluntary sector	302.6	160.7	333.4	91.6	247.7	332.4	260.6	214.4	166.5	181.1
Public sector	187.4	150.1	222.1	90.6	253.0	233.9	143.1	139.9	175.6	233.3
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**	**1,737.2**
Sport GVA as % of total GVA	**2.0%**	**1.7%**	**1.0%**	**2.0%**	**1.7%**	**1.4%**	**1.6%**	**2.0%**	**1.6%**	**1.7%**

Table 3.3: Summary of sport-related employment in Scotland and the English regions in 2008 ('000s)

	East	East Midlands	London	North East	North West	South East	South West	West Midlands	Yorkshire & Humber	Scotland
Commercial sport	25.2	12.5	20.9	7.2	18.8	25.5	12.7	18.1	9.8	11.0
of which: *- Spectator sports*	*3.9*	*2.9*	*5.5*	*3.7*	*9.0*	*5.9*	*3.7*	*4.2*	*2.9*	*4.3*
- Participation sports	*3.0*	*1.3*	*3.6*	*0.7*	*2.5*	*3.3*	*2.8*	*1.9*	*1.3*	*1.2*
- Retailers	*6.5*	*3.4*	*8.6*	*1.8*	*4.5*	*5.8*	*4.1*	*5.4*	*4.0*	*3.5*
- Manufacturing	*2.3*	*1.0*	*1.5*	*0.6*	*1.6*	*1.3*	*0.9*	*1.8*	*0.5*	*1.0*
- TV and radio	*0.8*	*0.8*	*1.7*	*0.5*	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*	*1.1*
Commercial non-sport	23.8	16.5	20.7	11.1	25.3	26.0	20.1	26.1	18.5	24.0
Voluntary sport	6.2	3.4	4.9	2.2	5.8	7.0	5.7	4.9	4.5	6.0
Public sector	6.8	5.4	6.3	3.4	9.7	8.1	5.5	5.1	7.0	10.5
Total jobs in sport	**62.1**	**37.9**	**52.8**	**24.0**	**59.5**	**66.7**	**44.0**	**54.2**	**39.8**	**51.5**
Proportion (%) of total employment in sport	**2.2%**	**1.8%**	**1.4%**	**2.1%**	**1.9%**	**1.6%**	**1.7%**	**2.2%**	**1.6%**	**2.0%**

Appendices

A1: Statistical sources

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

- Consumer Trends
- Travel Trends
- Family Spending
- Regional Trends
- 'Focus on...' reports
- Annual Business Inquiry
- New Earnings Survey
- **sport**scotland Annual Report
- Regional Accounts
- Scottish Local Government Finance Statistics
- General Household Survey
- National Travel Survey
- 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 Trends

A2: Model output

Consumer expenditure on sport related goods & services, 2008 (£m)	
Admissions	47.9
Sports goods	50.9
Bicycles	2.9
Boats	125.1
Participants sports subscriptions & fees	235.5
Clothing sales	260.7
Footwear sales	95.5
Repairs and laundry	1.0
Travel	78.6
Books and magazines	15.9
Newspapers	42.7
Video: purchase and rental	2.7
BBC license	32.6
TV and video rental, cable & satellite subscriptions	263.8
Internet subscriptions	0.9
Skiing holidays	70.8
Independent schools	12.6
Gambling: football pools	7.3
Horse racing	436.4
Raffles and gaming	45.8
Total	**1,829.6**

Commercial sport income, 2008 (£m)	
Spectator clubs:	
Admissions	47.4
Sponsorship & advertising	17.0
Corporate entertainment	10.7
Horserace Betting Levy	7.7
TV rights	22.4
Participation clubs:	
Subscriptions & fees	38.2
Retailers (net of Vat):	
Equipment	122.0
Clothing and footwear	312.9
Books, newspapers and magazines & videos	60.8
Exports and manufacturers' sales of clothing, footwear & equipment	101.7
TV and radio:	
BBC	32.6
Commercial	29.8
Exports	2.4
Internet subscriptions	0.8
Lottery awards	3.1
Lottery partnerships	1.1
Total income	**810.6**

Commercial sport expenditure, 2008 (£m)	
Spectator clubs:	
Wages	69.1
Other inputs	34.6
Participation:	
Wages	19.1
Other inputs	17.2
Retailers:	
Wages	50.0
Other inputs	375.6
Manufacturers:	
Wages	20.2
Other inputs	50.4
TV and radio:	
Wages	31.3
Other inputs	17.1
Total factor expenditure	
Total wages	189.6
Total other inputs	495.0
Total factor surplus	106.9
Total value added	296.4
Current transfers	
Corporation tax	15.4
Rates	8.9
Capital expenditure	
Investment	30.5
Total expenditure leaving sector	**739.4**

Voluntary sector income, 2008 (£m)	
Factor income (monetary)	
Players' subscriptions and match fees	131.9
Equipment	0.9
Sponsorship and advertising	11.6
Raffles and gaming machines	45.8
Bar receipts	190.2
Subtotal (factor income)	380.4
Other monetary income	
Grants	48.1
Foundation for Sport and Arts	1.5
Employers' subsidies	37.8
Interest	9.1
Lottery awards	12.6
Lottery partnerships	11.1
Total monetary income (excluding bar receipts)	**310.4**

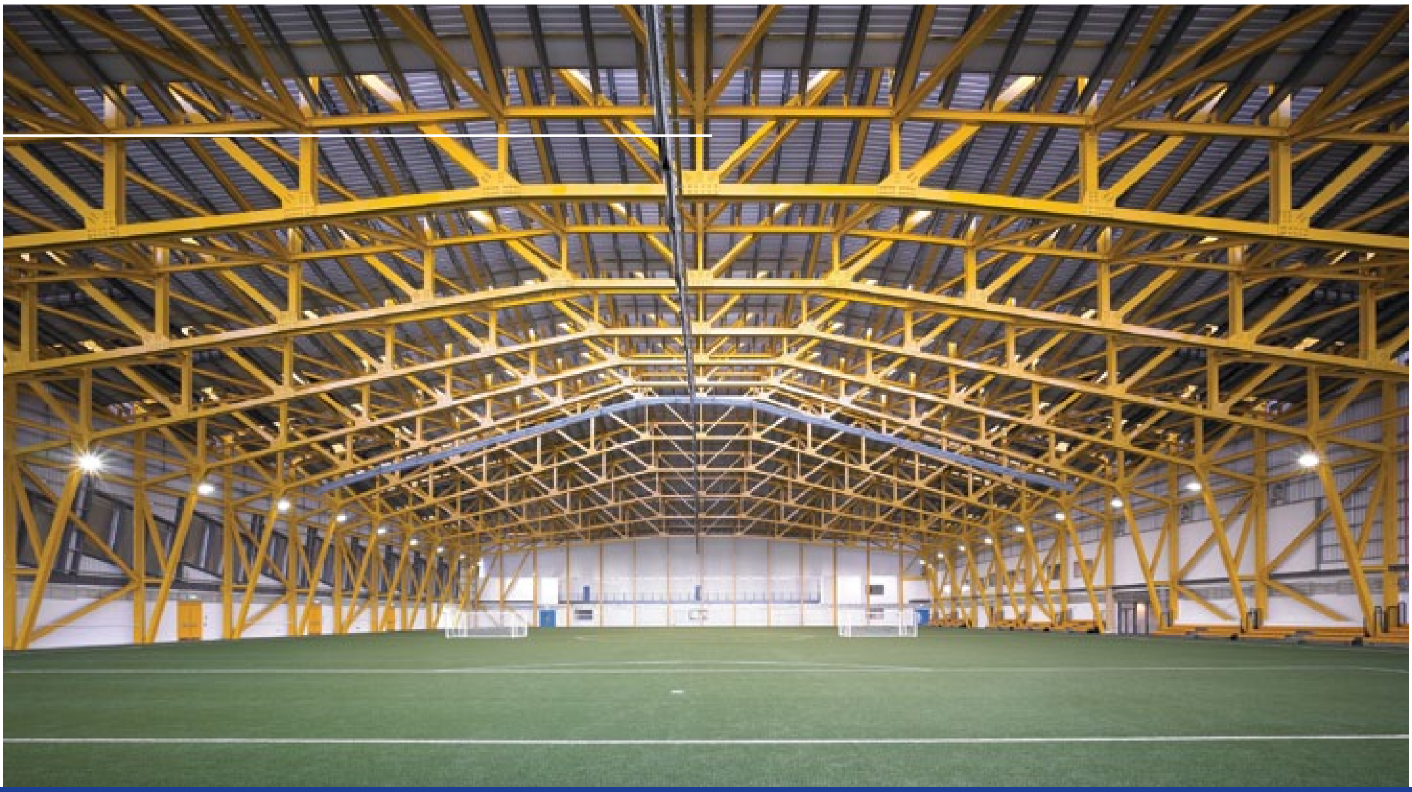
Voluntary sector expenditure, 2008 (£m)	
Factor expenditure	
Wages	109.7
Ground hire and rents	13.2
Equipment	0.9
Other	62.3
(Bar purchases)	133.1
Subtotal (factor expenditure)	319.2
Rates	7.8
Interest	2.8
Investment	34.5
Total monetary expenditure (excluding bar purchases)	**231.2**

Commercial non-sport income, 2008 (£m)	
Receipts net of tax from consumer spending:	
Travel	26.8
Gambling	393.3
Skiing	32.1
Independent schools	10.4
TV rental, cable & satellite subscriptions	217.6
Sales of current inputs to:	
Central government	8.5
Local government	71.4
Commercial sport	368.5
Voluntary sector	58.0
Interest from voluntary sector	2.8
Sales of capital inputs to:	
Local government	109.6
Commercial sport	18.9
Voluntary	28.4
Promotion expenditure for sponsorship (intra-sectoral flow)	40.0
Total income	**1,346.5**

Commercial non-sport expenditure, 2008 (£m)	
Producers of inputs to sport:	
Wages	657.5
Imports	335.8
(Factor surplus)	367.0
(Value added)	1,024.5
Corporation tax	52.8
Rates	30.7
Purchases of inputs from sport:	
Sponsorship and advertising	47.2
ITV and radio advertising	29.8
Corporate entertainment at sports events	10.7
Employees' sports subsidies	10.7
Horserace Betting Levy	7.7
Interest payments to voluntary sector	9.1
Promotion expenditure for sponsorship:	
(to elsewhere in the commercial non sport sector)	40.0
Cost of the rights to top league matches	22.4
Lottery awards	36.0
Lottery partnerships	42.5
Total expenditure leaving sector	**1,292.7**

Central government income, 2008 (£m)	
Taxes:	
On expenditure	317.8
On incomes generated in:	
Commercial sport	77.5
Voluntary sector	36.7
Commercial non-sport	285.6
Local government	69.3
Total income	**787.1**
Lottery awards	5.4
Lottery partnerships	3.3

Central government expenditure, 2008(£m)	
Transfer payments	
Grants	38.7
Grant support for local government expenditure on:	
Sport (net spending)	89.4
Education	58.5
Foundation for Sport and Arts	2.0
Factor expenditure	
sportscotland: capital spending, wages and other inputs	11.2
Prison service, MOD, royal parks: wages and other inputs	3.8
Total	**230.9**



Local government income, 2008 (£m)	
Local authority sports facilities:	
Fees and charges	47.2
Sales of equipment	25.6
Ground hire	6.6
Grants from central government:	
To fund net expenditure on sport	89.4
Sport education	58.5
Via **sport**scotland	5.8
Via Foundation for Sport and the Arts	0.5
Rates:	
Voluntary sector	7.8
Commercial sport	8.9
Commercial non-sport	30.7
Payments for policing	1.3
Lottery awards	14.9
Lottery partnerships	26.9
Total income	**324.1**

Local government expenditure, 2008 (£m)	
Current expenditure	
Direct gross expenditure:	
- Wages	111.8
- Other current expenditure	95.2
Education:	
- Wages	72.6
- Research	0.5
Local transport and policing:	
- Wages and other inputs	22.4
- Grants to voluntary clubs	15.2
Capital expenditure	
Investment	132.9
Total expenditure	**450.5**

Outside the area income, 2008 (£m)	
Sports, clothing, footwear and equipment	93.7
Import content of skiing	26.3
TV imports	4.3
Prize income	14.7
Import content of UK production of:	
- Sport related goods and services	18.9
- Commercial non-sport sector output	335.8
Total income	**787.1**

Outside the area expenditure, 2008 (£m)	
Sports, clothing, footwear and equipment	92.5
Admissions to sports events	9.5
TV exports	2.4
Prize income	14.7
Total expenditure	**119.1**

Value added by sport related economic activity, 2008	£m	index
Commercial sport:		
Wages	189.6	
Surplus	106.9	
Lottery projects	1.8	
Total	**298.2**	**17.2**
Voluntary sector:		
Wages	109.7	
Surplus	61.2	
Lottery projects	10.3	
Total	**181.1**	**10.4**
Commercial non-sport:		
Wages	657.5	
Surplus	367.0	
Total	**1,024.5**	**59.0**
Central government:		
Wages	4.7	
Lottery projects	3.8	
Total	**8.5**	**0.5**
Local government:		
Wages (education)	72.6	
Wages (sports facilities)	111.8	
Wages (transport and policing)	22.4	
Lottery projects	18.1	
Total	**224.8**	**12.9**
Total value added	**1,737.2**	**100.00**

Employment, 2008 ('000s)	
Commercial sport	
Spectator clubs	4.3
Participation clubs	1.2
Retailers	3.5
Manufacturing (exports)	1.0
TV and radio	1.1
Subtotal	11.0
Voluntary sport	6.0
Commercial non-sport	24.0
Central government	
Administration	0.2
Local government	
Sports facilities	7.0
Education	2.6
Transport/police	0.7
Subtotal	10.3
Total	**51.5**

The expenditure flows matrix, 2008 (£m)

Flows from:	Flows to:						
	CON	CS	VOL	CNS	CG	LG	OV
Consumer sector	0.0	606.1	178.6	680.2	252.5	72.8	26.3
Commercial sport	126.1	0.0	0.0	387.4	84.2	10.2	131.5
Voluntary sector	72.9	0.7	0.0	89.3	53.8	14.4	0.0
Commercial non-sport	444.7	99.0	55.1	0.0	285.6	72.5	335.8
Central government	4.7	2.0	61.5	8.5	0.0	154.2	0.0
Local government	137.8	7.1	15.2	181.1	109.3	0.0	0.0
Overseas	14.7	102.8	0.0	0.0	1.7	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; for this reason we use relationships that arise from previous studies and surveys to relate 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 2008 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 and the proportion of sport related bicycle journeys form the National Travel Survey (NTS).

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.

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 estimate is filtered 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 statistic. Subsequently the regional element is derived by using FES and the number of households.

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. 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.

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 estimated statistics (on the basis of the old Business Monitors and the Annual Business Inquiry) that relate wages to total income. This method of calculating wages is repeated in all sectors at a UK regional level.

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 ABI at a UK 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 the 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.

Sales of capital inputs to other sectors: They are related to the capital expenditure of the local government, commercial sector and voluntary sectors.

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 can be estimated from a SIRC model based on the Input-Output tables for Scotland.

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.

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 SIRC model.

Central government expenditure

Grants via Sports Council: Data are provided in **sport**scotland'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 opposite.

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 - taxes on products + 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 Forecasts.[5] 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 is full time equivalent (FTE) jobs. In this case two half-time jobs are measured as one full time equivalent.

[5] *Sport Market Forecasts, 2010-2014, SIRC.*

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