

## **Preface**

Sport and active recreation can make a significant contribution to a country's economy. Sport creates direct economic benefits in the form of jobs, income and taxation revenue. It also benefits the economy indirectly by improving people's health and wellbeing, which can reduce healthcare costs and increase labour productivity. Sport also generates economic benefits by contributing to the tourism and entertainment industries.

To illustrate how Hong Kong's economy can benefit from its sport and active recreation sector, this report by Business and Economic Research Ltd (BERL) describes the range and value of economic benefits generated by sport in countries such as Australia, New Zealand, Canada, the US and UK. BERL also concluded that it was feasible to quantify the economic impact of sport in Hong Kong; the results of the feasibility study are in a separate, unpublished report.

The Hong Kong Sports Development Board (SDB) commissioned this study as part of its research programme to demonstrate the value of sport for Hong Kong. Reviews of the health, and community and social benefits of sport also are being carried out as part of this programme.

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# **The Economic Benefits of Sport**

## **A Review**

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The study was carried out for SDB by:

Business and Economic Research Ltd (BERL); a New Zealand-based company experienced in conducting economic impact studies. BERL's study team included:

Kel Sanderson, Frances Harris, Sarah Russell and Sheryl Chase.

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Report to:

**Hong Kong Sports Development Board**

# **The Economic Benefits of Sport A Review**

**August 2000**

Prepared by

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BERL  
August 2000.

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# EXECUTIVE SUMMARY

## 1. INTRODUCTION

- The potential for Hong Kong's economy to benefit from its sport and active recreation sector<sup>1</sup> can be understood by describing the types and levels of economic benefits from sport in other economies. The purpose of this report is to demonstrate the scope and level of economic benefits of sport to an economy, using examples from the US, Canada, the UK, Australia and New Zealand.
- Business, people and governments are generally aware of major sport events, but are not aware of the size of their sports industry. The contribution other industries make to the economy is more apparent. For example, everyone is aware of the heavy construction industry from its tower cranes, scaffolds, and earthmovers, and its "worth" to the economy is measured separately in official national statistics.
- The sports industry is not so visible, as its sales and purchases come from a range of other industries, such as the manufacture of sports clothing, the operation of sports facilities and venues, and the services provided by sports professionals. These sales and purchases are not recorded separately in the official figures of any economy. In consequence, a dedicated investigation of all the industries that make up the sport and active recreation sector is required in order to measure the type and scale of economic benefits from sport.
- This review looks at how a number of other countries have estimated the economic impact of their sport and active recreation sector, and at the scale and nature of the economic benefits. The economic benefits of sport are *direct* and *indirect*, and both types of benefit are described.

## 2. DIRECT ECONOMIC BENEFITS OF SPORT

- Producing and selling sports goods and providing sports services generate direct, tangible economic benefits and these can be measured in relation to the size of the national economy - the Gross Domestic Product (GDP).
- Spending on sport and active recreation is the most apparent direct economic benefit and was about 2% of household spending in Australia, Canada, New Zealand, and the UK in 1995-96. Exports and imports of sport goods and services also contribute directly to GDP and, along with spending on sport, are growing faster than the overall economy in most countries.

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1. Following the approach adopted by all the overseas studies reviewed, the *sports sector* includes not only organised sport but also active recreation, such as walking, jogging, exercising, hiking and camping, and sport-related tourism.

- The experience of other countries shows that there are good business opportunities in sports goods and services. To assess the actual size of household spending on sport and the scale and value of exports and imports in Hong Kong requires a separate economic analysis of the available data.
- Sport tourism is a separate market segment and sport increases the number of domestic and international tourists. Although it tends to be a small sector of the market, spending by "sports tourists" can increase the total expenditure on sport in the host countries noticeably.
- Where sporting cultures of neighbouring countries are similar, there are high levels of sport tourism between them, as is evident between Canada and the US, and Australia and New Zealand. Major sporting events extend both the tourist markets and raise the profile of the host country among potential markets. For Hong Kong, expanding sports popular in the region could increase tourists from neighbouring countries. Hong Kong also could expect to benefit from major events elsewhere in the region, for example, if Beijing attracts the 2008 Olympic Games, Hong Kong could offer training and support services to other competing nations in the lead up to the Games.
- Sport contributes directly to an economy through employment. Sport employed about 2% of all people in paid work in Canada, the UK, Scotland and Australia, and 1.3% in New Zealand. The employment generated by sport is on a par with, or greater than, that generated by some of the more traditional industries. For example, the number of people working in the sport and recreation industry in New Zealand in 1996 was more than in the insurance industry, nearly the same as in the heavy construction industry, and more than the combined total for forestry, fishing, petroleum and all mining industries.
- In all of the countries reviewed in this study, sport and recreation is now an important and growing generator of paid employment.
- Sporting skills are learned first in the family and school, often with the support of unpaid volunteers. Countries that have a strong sport culture, such as Australia and New Zealand, have a high proportion of their population working voluntarily in sports administration and coaching. These people provide a low-cost network to support sports initiatives and expand the sport sector. In Hong Kong, a recent preliminary estimate is that around 8% of the population work in sport and around 80% of these (or 300,000) are volunteers. This is a substantial network but, on a per capita basis, is small relative to other countries.
- Public sports programmes in most countries provide physical infrastructure, promotion of active recreation and sport, specific promotion of sports and sports people, and support of major sporting events. This provision is generally through dedicated sport organisation(s), with funding from central government, local government, sports lotteries, charitable bodies, and from commercial sponsorship.

- In return Governments receive considerable direct tax revenue from the sports sector, and indirect fiscal benefits, such as reduced healthcare costs.
- The total direct economic impact of sport is in the range 0.5% to 2% of GDP. In Canada, the 1% contribution to GDP is similar to that made by the wood, logging, and paper industry, and one-half the size of the food industry. In the UK, sport is one quarter the size of the health industry. This shows that sport is relatively "big business" in these countries.

### **3. INDIRECT ECONOMIC BENEFITS AND COSTS OF SPORT**

- Better health, reduced healthcare costs, and better labour productivity at work are some of the benefits of individuals participating in sport, and these give indirect benefits to the individual, society and the economy.
- Indirect economic effects include: industry linkages, measured as multipliers; and benefits to business from increased labour productivity through reduced absenteeism and higher productivity from those who have sporting and active lifestyles. The reduced incidence of a range of diseases in those who are active also reduces healthcare costs. It has been shown that this more than compensates for costs resulting from sports injuries.

### **4. MARKET SIZE AND POTENTIAL**

- The overall size of the sports market is determined by the sport culture of the society, and public sports programmes. These give young people the skills to play sport, help breakdown barriers to participation among busy people of working age, and encourage older people to continue participating. In general, people recognise the value of sport and active recreation and, consequently, as incomes rise, spending on sport rises faster. Sport is a growing market worldwide.
- The size of the sports market in Hong Kong is relatively large, with around one-half of the population participating in some sport or active recreation, but many people only take part infrequently. In Hong Kong, if this "interest" is converted into committed, frequent participation, sport will grow rapidly, and significant direct and indirect benefits will accrue to the economy.

### **5. NEXT STEPS**

- A separate report by BERL concludes that it is feasible to complete a study to estimate the economic impact of sport in Hong Kong. This would describe the components of Hong Kong's sports industry and compare the contribution it makes to the economy with that made by other industries. Some of the indirect benefits from an active and healthier population and workforce also can also be estimated.



- As other countries have found, quantifying the economic impact of sport is invaluable for raising the profile of sport and providing the "hard facts" to demonstrate to government and the commercial sector that sport is good business and an excellent investment.
- In conclusion, this review indicates that Hong Kong has a significant potential for achieving increased benefits to business and the economy from sport and active recreation. Assessing the economic impact of the sports sector will be an important step towards realising this potential.

# 1 INTRODUCTION

## 1.1 PURPOSE OF THIS REPORT

The purpose of this report is to demonstrate the scope and level of economic benefits of sport to an economy. It begins by describing the *sport and active recreation sector*<sup>1</sup>, including the range of business activities that comprise the sector. Describing the main components of the sport and active recreation sector indicates the types and levels of economic benefits (and costs) which sport can deliver to an economy. Describing the benefits in other economies also illustrates how Hong Kong's economy can be expected to benefit from its sport and active recreation sector.

The report indicates the key issues that have to be considered when estimating the direct and indirect economic impacts of sport on an economy.

## 1.2 STRUCTURE OF THIS REPORT

The remainder of the **Introduction** describes the business and economic nature of the sports sector. This provides the basis for outlining the economic benefits and costs of sport in the following sections.

**Section Two** describes the range of *direct* economic benefits of sport and active recreation, and the levels of these benefits in selected national economies. These direct benefits include production and consumption of goods and services, sport tourism and entertainment, export and import of sport goods, and the employment generated by all of these activities, as well as participation in sport itself. As well as the direct private benefits to individuals in purchasing sports goods and services, there are direct public benefits from sport. Many countries have public sport and recreation programmes funded from government and a range of other sources which capture these public benefits.

Combining the direct benefits gives an estimate of the contribution of sport to the measured size of the national economy, which is the Gross Domestic Product (GDP). The direct contribution of sport to the economy can then be compared with the contribution of other industries.

**Section Three** considers *indirect* economic benefits and costs of the sports sector, which includes the downstream industry benefits, and various other impacts which are not measured directly in the nation's GDP. These include labour productivity, health benefits and healthcare cost reduction; costs of injury, and some less tangible benefits which nations receive from a sporting culture, such as heightened national identity and pride following international sporting success.

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<sup>1</sup> Following the approach adopted by all the overseas studies reviewed, the *sports sector* includes not only organised sport but also active recreation, such as walking, jogging, exercising, hiking and camping, and sport-related tourism.

**Section Four** considers the size and nature of the sports market. It notes some strong universal drivers of growth in the sports market and other characteristics of communities and societies, which tend to determine the extent of the sporting culture, and so the size and growth of the sports market. These and other factors are considered in relation to the Hong Kong sports market.

Finally, **Section Five** outlines some potential ways for increasing sport's benefits to Hong Kong.

### **1.3 THE SPORTS SECTOR**

Business, people and governments are generally aware of the approximate contribution of the main industries to their economy. The size and extent of the banking, insurance and finance sector's buildings and advertising make us aware of the finance industry; the activity of tower cranes, scaffolds, and earthmovers make the construction industry apparent; apparel with the 'Made in ...' labels make us aware of our textile and clothing industry. With sport, we will certainly be aware of the main sport events, but we are not usually aware of the whole range of components that make up the broader sports sector.

In fact, sport is a composite sector, including: enterprises that provide sport services direct to consumers; part of the clothing and footwear industry; the part of the hospitality industry that provides accommodation and food to sports participants and spectators; and a wide range of other industries providing sport-related goods and services. Because sport sales and purchases are related to a range of other industries, they are not recorded separately in the official figures of any economy. The sport sector is like the tourism industry, which also buys goods and services from a wide range of other industries, and unlike a manufacturing industry, such as textiles, which buys a simple range of goods, converts these into finished consumer goods and then sells them.

It is only possible to estimate the sales and purchases of the sports sector, therefore, by detailed investigation of all the industries involved. Only some countries have carried out the work required to estimate the range of sales and purchases made by the sports sector, and so people in most countries are not aware of the extent of the benefits and costs of sport.

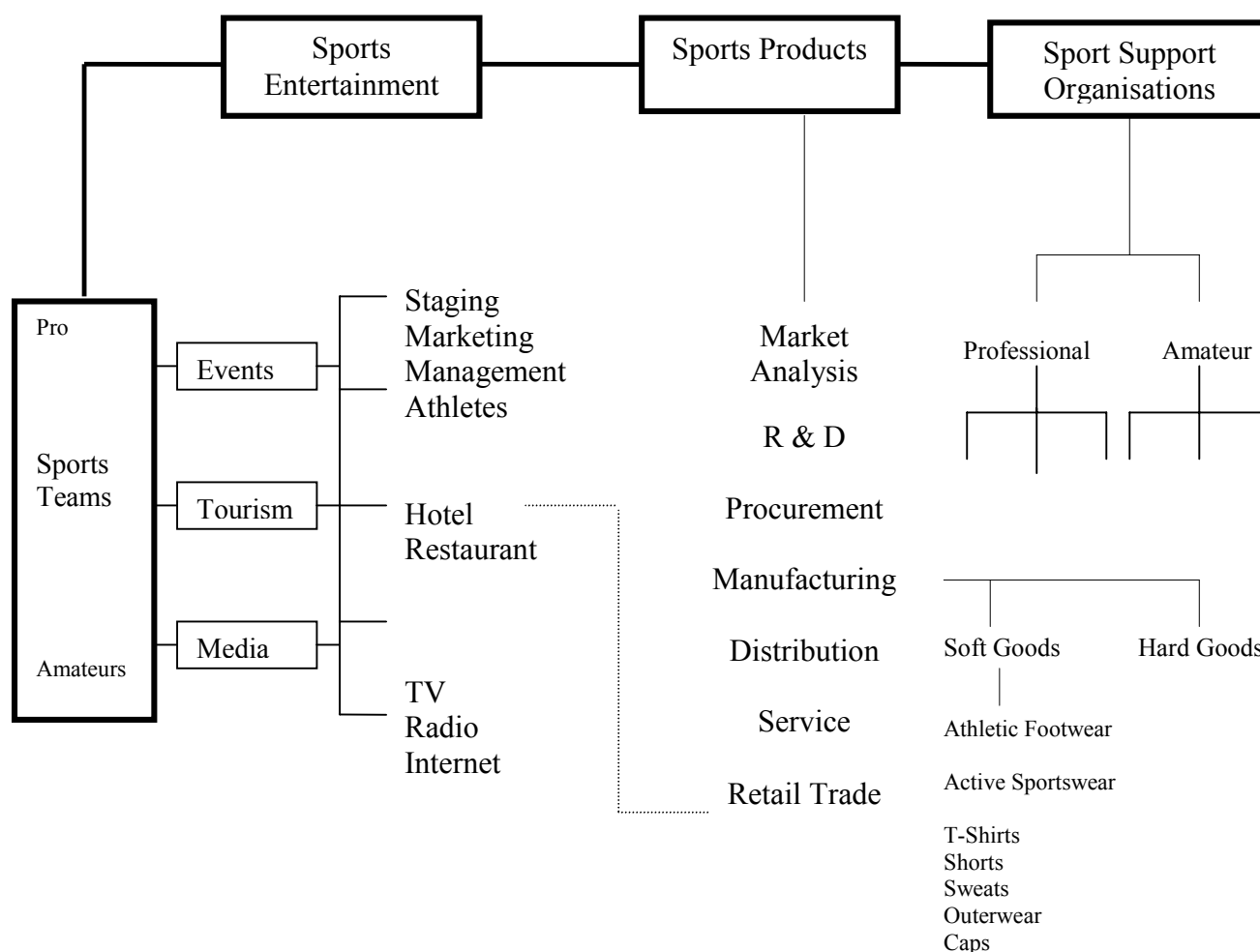
As noted earlier, the sports sector includes not only organised sport but also active recreation, both organised and casual. Active recreation includes people walking, jogging, and doing Tai chi exercises, individually or in groups, and similar activities. Whether people walk in organised events or go for a casual walk in the evening, they will require sports shoes and clothing, and so this active recreation impacts on the domestic economy in the same way that organised sport does.

## 2 DIRECT ECONOMIC BENEFITS OF SPORT

### 2.1 SPORT AND RECREATION BUSINESS ACTIVITY

Sport and active recreation generates business activity across a range of industries and sectors. Sport and active recreation participants require sports clothing and equipment to be manufactured or imported, distributed and sold. They need sports facilities from grounds to gymnasias, and large international stadiums, and they need a range of services including instructors, coaches, and also physiotherapists and other health professionals. These are all part of the contribution sport makes to the economy. One author, A. Meek, pictures the sports sector in the USA in the following diagram.

#### The Sports Sector in the USA<sup>2</sup>



<sup>2</sup> Meek A (1997); *An Estimate of the Size and Supported Economic Activity of the Sports Industry in the United States*, Industry Analysis, Sport Marketing Quarterly, vol 6. no4. pages 15-21.

This diagram shows the wide range of businesses involved. The range would be even wider if the diagram was expanded to include services like grounds maintenance and the support athletes receive from sports science and medicine.

## 2.2 PRODUCTION OF SPORT GOODS AND SERVICES

There is a wide range of goods and services produced by the sport and active recreation sector, including products such as sports clothing and footwear, equipment like racquets, golf clubs and yachts. Services include coaching and tuition, gym and fitness services, and hospitality services for sports people and teams travelling and competing at events.

The nature of goods and services produced is reflected in the consumption expenditure detailed in the following section.

## 2.3 HOUSEHOLD EXPENDITURE ON SPORT

Individual consumer demand determines spending on sport and active recreation. It is a small component of household spending but has been increasing in most countries.

### 2.3.1 Average Level of Household Spending on Sport

A number of countries have carried out specific surveys on consumers' expenditure on sport and active recreation, while others have obtained this information from official household expenditure surveys. The table shows information for spending in 1995 or 1996.

Consumption Expenditure on Sport 1995-96				
Country	Currency Unit	\$ Million Local Currency	Per Capita Local Currency	Per Capita US Dollars
Australia	Aus\$	3,360	185.94	\$137.88
Canada	Can\$	7,826	261.13	\$191.51
New Zealand	NZ\$	967	264.21	\$173.43
United Kingdom	UK£	10,565	180.26	\$284.54
United States	US\$	144,848	551.26	\$551.26

Sources : Hillary Commission (1998), *The Growing Business of Sport and Leisure - An Update to 1996*, New Zealand House of Commons, Canada (1998), *Sport in Canada, Leadership, Partnership and Accountability*, Canada Meek A. (1997), *An Estimate of the Size and Supported Economic Activity of the Sports Industry in the U S*, USA Tasman Asia Pacific, Ernst & Young (1998), *Economic Impact of Sport*, Australia Sport England (1998), *The Value of Sport, Best Value through Sport*, United Kingdom

These figures come from a range of sources and the precise definitions vary between countries, so they must be interpreted with caution. The figures for the US were a separate estimate, rather than the result of a survey, and appear to include some corporate expenses that are not included in estimates for other countries.

As a general assessment, the figures for these countries indicate that per capita spending on sport in moderately high-income countries could be expected to fall in a range of US\$100 to US\$300 per annum.

The average GDP per capita of Hong Kong expressed in \$US is nearly twice that of New Zealand and so Hong Kong is within the 'moderately high income' description. Therefore, it is likely that expenditure in Hong Kong will be in this range, i.e. US\$100 and US\$300 per capita per year. If this was the case, the annual expenditure would be between approximately HK\$5,000 million and HK\$15,000 million per annum. This is supported by the figure from the Hong Kong Sports Development Board's (SDB) Sports Participation Survey, which estimated annual spending on sport in 1998 to be \$10,900 million.

To have a sound assessment of actual size of expenditure on all sport-related goods and services in Hong Kong, it is essential to complete a detailed investigation.

### 2.3.2 Composition and Share of Expenditure on Sport

The composition of expenditure on sport-related goods and services is well-illustrated by the following table comparing expenditure in Canada and New Zealand.

<b>Total Household Expenditure for Sport-Related Spending</b>				
<b>Canada and New Zealand, 1996</b>				
	Total Annual Spending			
	Canada		New Zealand	
	CAN(\$m)	% of total	NZ (\$m)	% of total
Active sportswear and shoes	2,289	29.2	136	14.1
Sporting & athletic equipment	2,071	26.5	548	56.7
Live sport events	403	5.1	13	1.4
Use of recreational facilities	3,063	39.1	199	20.5
Sporting membership fees			72	7.4
<b>Total Expenditure on Sport (\$m)</b>	<b>7,826</b>		<b>967</b>	
<b>Total GDP (\$m)</b>	<b>833,920</b>		<b>94,940</b>	
<b>% of GDP</b>	<b>0.9</b>		<b>1.0</b>	

Note : Figures may be different from those published due to rounding

Source : House of Commons, Canada (1998)

Hillary Commission. The Growing Business of Sport and Leisure - An Update to 1996

In both countries the share of household expenditure on sport is approximately 1% of Gross Domestic Product (GDP). However the proportions that are spent on each item are different. These may reflect general differences in the two economies, such as the openness to cheap imports of shoes and clothing, rather than different consumer demands.

Figures for the share of GDP in the UK and US in recent years are slightly higher than in Canada and New Zealand. In the UK in 1998 consumer expenditure on sport was 1.5% of GDP, and in the United States the 1995 expenditure on sport and entertainment was estimated at 1.9% of GDP.

### **2.3.3 Growth of Expenditure on Sport**

The growth in expenditure on sport and recreation in recent years has been higher than the growth in the whole economy (GDP) in the two countries for which we have data. In the UK from 1995 to 1998, expenditure on sport-related goods and services grew at 7.3% per annum, whereas GDP grew at only 2.7% per annum. And in New Zealand from 1991 to 1996, expenditure on sport grew at 6.3% per annum, while GDP grew at only 3.5% per annum. (Note: the GDP growth rate figures are estimated from the International Financial Statistics of the IMF.)

Expenditure on sport grew much faster than the overall economy, which may imply that sport is a luxury good, i.e. as income increases, spending on sport increases more. However, it may imply that consumers' demand patterns in these countries have changed, with consumers buying relatively more sports goods over time. Whichever the reason, in these countries there was a strong increase in spending on sport, and consequently good business opportunities in sport goods and services.

## **2.4 SPORT TOURISM AND ENTERTAINMENT**

Tourism is a valuable industry because it has strong linkages with other industries like hospitality and transport. Sport and active recreation expand tourism in two main ways. Firstly, by domestic and international tourists participating in sport or a recreational activity available in that country during their visit (for example, golf, skiing or hiking), and secondly by people travelling to a country as spectators or participants in major sporting events.

Sport can be the sole reason for making a tourist trip or one of a number of reasons. For example, business visitors may be attracted to a conference not only for business reasons but also because the conference venue offers sports facilities.

### **2.4.1 Impact of Sport on International Inbound Tourism**

Where sports and active recreational activities are a part of a local culture, a number of international tourists can be attracted to take advantage of these activities and facilities.

**Numbers and Expenditure of International Visitors by Type of Holiday Given  
for Main Reason for Visit - New Zealand 1996**

	Numbers	% to total	Expenditure \$m	Expenditure per person \$
Ski holiday	26,277	2.1	65.4	2,489
Golf holiday	1,381	0.1	5.9	4,272
Fishing holiday	2,624	0.2	10.7	4,078
Watch or play sport	14,940	1.2	37.6	2,517
<b>Sub-total, Sports etc</b>	<b>45,222</b>	<b>3.5</b>	<b>119.6</b>	<b>2,645</b>
Other	1,235,926	96.5	3,434	2,779
<b>TOTAL VISITORS</b>	<b>1,281,148</b>		<b>3,554</b>	<b>2,774</b>

Source : Hillary Commission. The Growing Business of Sport and Leisure - An Update to 1996

For example, 3.5 percent of all international visitors travelled to New Zealand in 1996 with the purpose of either participating in, or watching, a sport. More detail of their reasons for visiting New Zealand and their expenditure there are given in the table above.

The overall picture of the impact of sport on tourist *numbers* in Australia and New Zealand is that sport and recreation visitors add over 3% to total visitor numbers. The impact of tourism on sport *expenditure* is that spending by these tourists increases the expenditure on sport and recreation in the countries by up to 12% per annum.

As the detailed figures show, the number of general tourists in New Zealand in 1996 was 1,235,926 and the number of sports tourists was 45,222, increasing total tourist numbers to 1,282,148 - an increase of 3.6%. Likewise, in Australia, 3% of international visitors in 1995 indicated that sport, either as a spectator or participant, was an influencing factor in their decision to visit the country. An additional 7% also indicated that nature-based, outdoor recreational activities influenced their decision to visit Australia.

Looking at the contribution to sport tourism expenditure shows that, in New Zealand in 1996, household spending on sport was \$967 million and sport tourist spending \$119.6 million, which increased total expenditure to \$1,087 million - an increase of 12.4%. In Australia, household expenditure on sport in 1995 was \$3,360 million. Total spending on sports-related tourism can be estimated using either the Tasman Asia Pacific Ernst & Young report or the International Visitors Survey, which indicate sports-related spending of A\$234 million to A\$430 million, respectively<sup>3</sup>. These figures indicate that sport increased tourism expenditure by 7.0% and 12.8%, respectively.

<sup>3</sup> Tasman Asia Pacific and Ernst & Young (1998). Economic Impact of Sport. p 21.



In North America also sports-related travel is a major reason for travel within countries and cross-border. In Canada, The House of Commons study reported findings from a survey that sports-related travel in 1996 represented 26% of all person-trips taken that year by Canadians. (About 20% of these were spectators and 80% participants in sport or an outdoor recreational activity.)

The travel for sport between neighbouring countries Canada and the US in 1997 represented 34% of total overnight trips into Canada from the US. (Of these about 16% were spectators, while 84% of people travelled to Canada to participate in a sport-related or outdoor activity.)

New Zealand and Australia, as neighbouring countries, share a number of sport and recreation interests and actual sport competitions (e.g. for rugby, the Super 12, Bledisloe Cup and Tri-nations competitions; for netball, the Fisher & Paykel Cup; and for racing, the Interdominion Trotting Cup). It is probable that a high proportion of the sport tourism in both countries originates in their neighbouring country.

This suggests that, where cultures of neighbouring countries are similar, including their sport cultures, the potential for sport-related tourism between them is high. In the Hong Kong context, if the sport culture expanded in areas popular in neighbouring countries (for example, badminton, soccer, swimming, horse racing), then the potential for expanding tourism numbers from neighbouring countries could be high.

Sports tourism increases total tourist numbers and total spending on sport in the host country. This gives a higher utilisation of sport and recreation resources and an increase in total business. The figures for New Zealand and Australia indicate that relatively small numbers of tourists can have a disproportionately high impact on sports-related expenditure, as sports tourists spend more per capita than local sports-related visitors.

#### **2.4.2 Tourism Impact of Major Sporting Events**

Hosting major sporting events brings economic activity and employment opportunities into a region, city or country. Initially with the construction and upgrading of sports venues and facilities, and then from the involvement of sports organisers and the hospitality staff required to host such events. Other direct benefits come from the use of sports training facilities at the site of the event and in surrounding regions, and from advertising, ticket printing and sales, and food and beverage sales. Indirectly, accommodation, bar and restaurant facilities will benefit. Some countries also benefit from major events hosted in neighbouring countries, for example New Zealand has successfully marketed its facilities to a number of countries for training in the lead up to the Sydney Olympics. Hong Kong might benefit in a similar way, if Beijing is successful in attracting the 2008 Olympic Games.

Major sporting events are perceived to have a substantial economic impact on the host regions, though their effects are generally quite small at the national level. A Canadian example is the Toronto Blue Jays. According to the House of Commons in Canada it estimated that the Blue Jays, and other Sky Dome events created 1,800 jobs in 1991. They also estimated that these events generated some \$39.4 million for the tourism industry, while including the multiplier effects on upstream industries resulted in spending totalling \$91.1 million<sup>4</sup>. These numbers are small in national terms - total household spending on sport was nearly CAN\$8,000 million in 1996 – yet, as a regular flow of spending, they are likely to be significant at the regional level.

Major events expand the market of future tourists by attracting to a country/city some visitors who would otherwise not visit. In Canada, for example, almost 40% of visiting spectators at the 1988 Winter Olympic Games in Calgary were visiting the city for the first time, and 27% had never heard of Calgary prior to the Olympics. (Calgary Tourism and Convention Bureau Research). This attraction of first-time visitors can generate spin-off effects, as some of these travellers are likely to visit Calgary again or recommend a visit to friends or relatives.

Finally, major sporting events provide a country with the opportunity for substantial international media coverage. There are many examples of large worldwide television audiences for particular events such as the soccer World Cup final. In car racing, the Formula One Montreal Grand Prix is reportedly broadcast in 130 countries and has a television audience of 300 million people. Moreover, all major newspapers follow the event, which attracts more than 200,000 people annually, about 20% of which come from outside Canada, 14% from the United States, 4% from Europe and 2% from Asia.

The Hong Kong Rugby Sevens is a major event that attracts large numbers of spectators, especially young rugby fans who are unlikely to visit Hong Kong for other reasons. However, having experienced the city, they are likely to return for further visits, either as general tourists or business travellers. The employment impact is relatively short term, but the media impact gives Hong Kong recognition among the rugby-following nations that might not be achieved by other means.

## **2.5 SPORT GOODS EXPORTS AND IMPORTS**

This section of the report looks at the impact that the sports sector of an economy can have on international trade. Estimating data on exports and imports of sporting goods requires targeted investigation of trade data at a detailed level. No such analysis of data for the export of sporting goods from Asian countries has been found by the researchers. However, the volume of export of sporting goods and equipment from Asian countries is likely to be large, due to the comparative advantage of these countries in producing sporting goods.

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<sup>4</sup> House of Commons, Canada p32

The following table shows the trade in active leisure goods for Australia, Canada, New Zealand and the US, to illustrate how exports and imports of sports goods impact on the economy.

<b>Imports and Exports in the Sport and Active Recreation Industry</b>					
Description	1991	1993	1995	1996	1991-1996 % Growth pa
Australian - Exports AUS (\$m)		172.1 (1994)	141.0	197.6	
Canada - Imports CAN (\$m)	599.2	794.4	1,081.2	948.4	9.6
- Exports CAN (\$m)	214.8	338.4	506.5	556.3	21.0
New Zealand - Imports NZ (\$m)	118.2	134.4		203.5	11.5
- Exports NZ (\$m)	29.0	63.2		92.8	26.2
US - Imports US (\$m)			10,151.0		
- Exports US (\$m)			4,544.0		

Source : Hillary Commission. The Growing Business of Sport and Leisure - An Update to 1996

House of Commons, Canada (1998)

Meek A. Sport Marketing Quarterly (1997)

Tasman Asia Pacific, Ernst & Young (1998)

The magnitude of the numbers is not great, (all are between 0.04% and 0.2% of GDP), however the growth rates for both New Zealand and Canada over a five-year period are high, ranging from 10% to 26% per annum. The Australian figures are volatile but over the two years increased by 7.2% per annum.

New Zealand and Australia are both nations with a sea-going culture and a high profile in sporting and recreational boats. Consequently, about 55% to 65% of the value of sports goods exported from these countries is leisure boats.

Meek in his article estimated that the United States exported \$4,544 million in sporting goods in 1995, with sport-related motorcycles, golf clubs, bowling equipment, and gymnasium equipment leading the list and accounting for more than 28% of total sporting goods exports. He also notes that the US received nearly \$1 billion in international licensing revenues, presumably from manufacturers (many in Asia) of brand-named sports shoes, clothes and equipment.

The overall picture is that exports and imports of sports goods do not make a major impact on the economies of these countries but, in the industries where individual countries excel, there are high growth rates in the sports goods industry export and import markets.

## 2.6 EMPLOYMENT IN SPORT

The sport and active recreation industry differs from most other industries in that varying proportions of the work involved in organising and delivering sport is done on a voluntary, unpaid basis. The proportion of work done by volunteers varies in each country, but in most countries volunteers are an essential part of the sports industry. This section, therefore, looks firstly at paid employment in sport, and then secondly at the voluntary sector.

### 2.6.1 Paid Employment in Sport

Current labour force surveys do not show people employed in sport and active recreation as a separate industry. In consequence, estimates of the employment in the sport and active recreation sector require specific surveys to be carried out or a detailed analysis of employment statistics. Surveys in different countries use different approaches and definitions, but our analysis shows that there is a remarkable similarity in the share of employment that the sport and active recreation industry provides.

Estimates from a range of sources show that 2% of all Canadian employment was generated by the sports sector over the 1994 to 1995 period<sup>5</sup>. This compares with 1.7% in the UK, 1.9% in Scotland and 1.9% in Australia (all in 1995). Employment in the New Zealand sport and active recreation industry accounted for 1.3% of total employment in 1996.

In the table following, the **New Zealand** data has been broken down into three sections of the economy: manufacturing, distribution and retail, and servicing households. This gives an indication of the impact that sport has on employment in the industries that support it.

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<sup>5</sup> Sport Canada (1998) p15

Employment in Sport and Active Recreation Industry in New Zealand					
Sector	1991		1996		1991-96 growth %pa
	FTE's	% of total	FTE's	% of total	
Manufacturing	2,587	16.9	2,213	11.5	-3.1
Distribution and Retail	2,602	17.0	3,190	16.6	4.2
Servicing Households	10,149	66.2	13,797	71.9	6.3
<b>Total</b>	<b>15,338</b>		<b>19,200</b>		<b>4.6</b>
<b>Share of NZ Employment</b>	1.2%		1.3%		

Source : Hillary Commission. The Growing Business of Sport and Leisure - An Update to '1996'

In 1996, there were approximately 19,200 full-time equivalent (FTE) employees, or 1.3% of New Zealand's workforce, in paid employment in the sport and recreation industry. BERL has compared this with employment in other industries at that time, using the BERL database derived from the Household Labour Force Survey of Statistics New Zealand. The comparison shows that the number of people working in the sport and recreation industry was more than in the insurance industry, nearly the same as in the heavy construction industry, and more than the combined total for forestry, fishing, petroleum and all mining industries.

The New Zealand figures also show that, while the average increase in employment in the New Zealand economy from 1991 to 1996 was 13%, employment in the sports sector increased by over 25% (an average of 4.6% per annum).

The following table shows the impact of employment in **Canada's** diversified sport economy. It has more detail than that for other countries. Hospitality (sport and recreation clubs) has the largest share of people employed in the industry, with 25.6%, followed closely by coaches, referees and athletes, and the sporting goods industry, both with 22.5%.

<b>Impact of Sport in Canada 1994-95</b>		
	<b>Employment</b>	<b>% of sport employment</b>
Coaches, referees and athletes	<b>58,919</b>	<b>22.5</b>
<i>Sporting goods industry</i>		
Manufacturing, wholesale & retail	<b>59,122</b>	<b>22.5</b>
<i>Sport and recreation service industry</i>		
Professional sport clubs	19,071	7.3
Sport and recreation clubs	67,033	25.6
Live sport spectacles	4,644	1.8
Use of recreation facilities	28,897	11.0
Other sports related-services	20,416	7.8
<b>Total sport services</b>	<b>140,061</b>	<b>53.4</b>
<b>National sport organizations</b>	<b>331</b>	<b>0.1</b>
<i>Government</i>		
Federal	1,634	0.6
Provincial	950	0.4
Municipal	1,307	0.5
<b>Total Government sport</b>	<b>3,891</b>	<b>1.5</b>
<b>Total sport</b>	<b>262,324</b>	
<b>Total economy</b>	<b>13,399,000</b>	
Sport share (%)	<b>2.0</b>	

Source : House of Commons, Canada (1998);

A Review of Commonwealth Involvement in Sport and Recreation in Australia estimated that 1.9% of total Australian employment was in the sports industry (163,000 people). As in Canada, the main source of employment was the clubs (hospitality), with 63,000 people employed, closely followed by sports, with 58,000 people.

A different survey in Australia showed that 57,000 people were paid as players in 1993. By 1997 this grew to 143,000 players<sup>6</sup>, an indication of the strong move to professional sports players.

In all of the countries reviewed here, sport and active recreation are now an important and growing generator of paid employment.

## **2.6.2 Professionalism in Sport**

As individual sports and recreation activities become more popular (either as spectator (TV) sports, or as participation activities e.g. gymnasiums, 'walk for health' groups), then the share of employees who are paid, rather than voluntary, increases.

<sup>6</sup> Tasman Asia Pacific and Ernst & Young (1998), p9.

Professional sports people (playing sport for an income) have become a major part of the sport industry. In general, athletes receive large salaries if the sport they play attracts large audiences (through actual ticket sales, media sources and sponsorship). It is estimated that more than half of the gross revenue a team generates goes to the athletes themselves, and a significant portion of the rest goes to the owners, managers, executives, on-field managers, coaches, agents and scouts<sup>7</sup>.

The increase in the number of professional teams in more sports, and the growing practice that teams are multi-national rather than country-representative, means that professional teams can be purchased, owned and domiciled elsewhere than the players' country of origin. Businesses may now purchase teams to participate in lucrative competition, even in countries or regions where that particular sport is not traditionally played. Opportunities in professional sport have increased substantially and there is no sign that this growth is slowing.

### **2.6.3 Voluntary, Unpaid Employment in Sport**

Sporting skills are learned first in the family and the school. In countries with a strong sporting culture, parents, teachers and others devote a large amount of voluntary time to sport coaching and organising. In these societies, a large proportion of coaching, refereeing and administration for youth sport is voluntary. This voluntary involvement continues through all levels of sport: local, regional and national. However, as individual sports grow in size and increase in popularity as a live spectacle, or for entertainment of commercial media audiences, funding increases and paid employees carry out more functions.

Surveys on voluntary participation use widely varying definitions of 'voluntary work'. However, the following table gives some indication of the relative levels of voluntary work in sport in the different countries.

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<sup>7</sup> Noll R. & Zimbalist A. (1997); *Sports, Jobs & Taxes*, The Economic Impact of Sports Teams and Stadiums, In Roger Noll and Andrew Zimbalist (eds.), Brookings Institution Press, Washington DC. P71.

Volunteer and Paid Adult Employment in Sport					
Country	Volunteers		Paid Employees		Approx. Ratio
	Number ('000)	% of Adults	Number ('000)	% of Adults	Volunteer: Paid
Australia	2,281.6	16.0%	388.2	2.7%	6 : 1
Canada	1,800.0	8.0%	145.1	0.7%	12 : 1
Hong Kong	4.5	v small	n.a.	n.a.	n.a.
New Zealand	344.5	13.0%	13.8	0.5%	25 : 1
U K	1,500.0	3.3%	425.3	0.9%	3.5 : 1

Note : The above numbers are taken from different time frames and dates - they are an indication only.

The differences in the figures reflect the sporting cultures in the different countries and the level of commercial involvement. For example, both **Australia** and **New Zealand** have strong sporting cultures but Australia has a stronger and longer-established commercial association with sport than New Zealand, particularly for Rugby League. This may be part of the reason why the ratio of volunteers to paid employees is 6:1 in Australia and is much lower than the ratio of 25:1 in New Zealand.

In the **UK** there is not a large voluntary involvement in running sport and this is likely to be because there have been commercial sources of income to pay the support people in the main national sports for many years. The situation in **Canada** would seem to be in between the position in New Zealand and the UK.

There is some information on the level of voluntary involvement in **Hong Kong**. The Hong Kong Sports Development Board has long recognised the importance of the volunteer sector in Hong Kong and commissioned a report on 'Volunteerism in Sport'. This came up with the following results:



Number of Volunteers in the Sport Sector in Hong Kong		
	1997	
	No.	%
Helpers	1,485	33.0
Coaches	855	19.0
Umpires	945	21.0
Executive Committees	810	18.0
Administrators	45	1.0
Other Professionals	45	1.0
Others	315	7.0
<b>TOTAL</b>	<b>4,500</b>	<b>100.0</b>

Source : Volunteerism in Sport. Thinktank Research Consultancy (1997)

It was estimated that 4,500 people were volunteers in Hong Kong in 1997, of which the majority were general helpers (33%), then coaches (21%) and umpires (19%). The Survey found that recruiting professionals, like doctors, therapists, and technicians, to act as volunteers was difficult. It was also noted that the major source of volunteers came from personal connections.

The study's estimate of the number of volunteers is likely to be very conservative, as it is based on a partial response to the survey. A more recent (although preliminary) estimate indicates that around 8% of the population are involved as sports coaches, officials, administrators, or casual/parent helpers. Of these, around 80% are unpaid, suggesting that there are around 300,000 sports volunteers. SDB plans to carry out further work to confirm these figures.

The *value* of the voluntary contribution to sport and recreation, in terms of time or labour, can be calculated as a 'shadow price', in order to estimate the approximate contribution that volunteers makes to notional GDP. It should be noted that, when calculating the contribution of the voluntary sector to GDP, total GDP should be adjusted for the value of the voluntary sector, as it is not measured in the national accounts.

Estimates have been made of the value of voluntary employment in sport in a number of countries. Again the surveys are not completely comparable, so it is useful to look at the detail from New Zealand, where volunteers comprise a large proportion of the employment. The following table shows an estimate of the value of voluntary work in different roles in sport in 1996.

<b>The New Zealand Economic Contribution of the Voluntary Sector In Physical Leisure - 1996</b>				
	Coach or instructor	Referee or other official	Administrator	Total
Average hours per week	3.9	2.0	3.45	
Number of volunteers	158,981	121,885	164,280	
Total Voluntary hours p.a.(Million)	32.24	12.68	29.47	74.39
Value per hour	\$7.85	\$7.85	\$7.85	\$7.85
<b>Value of Voluntary work (\$m)</b>	<b>253.0</b>	<b>99.5</b>	<b>231.3</b>	<b>583.8</b>
% of total	43.3%	17.0%	39.6%	100.0%
Total GDP for NZ (NZ \$m)				94,940
Voluntary Contribution to GDP %				<b>0.6%</b>

Source : Hillary Commission. The Growing Business of Sport and Leisure - An update to 1996

In New Zealand, the average hourly contribution of volunteers is 215 hours per year, or 4 to 5 hours per week. This results in the voluntary contribution to sport being estimated at \$583.8 million. Measured GDP was \$94,940 million, and with the voluntary sport contribution added, this comes to a total of \$95,523.8 million, and thus the voluntary sport contribution is 0.6% of GDP.

It is not so much the monetary value of volunteers' contribution, but the fact that volunteers are stakeholders in sport that is important. Where there are large numbers of volunteers, they form a network that can be mobilised as a low-cost infrastructure to support sports initiatives. The level of voluntary involvement, therefore, can be a major factor determining the size of the sport sector.

## **2.7 PUBLIC SPORT PROGRAMMES AND FUNDING**

Apart from the normal purchase and sale of sports goods, services and entertainment in private business, there is significant purchase, sale and funding of public infrastructure and services in public sports programmes. These public programmes can be likened to those of education and health, including the curriculum for physical education and public health programmes that promote good nutrition and physical activity.

At the other end of the scale, public programmes can include the 'purchase' of the services of teams in a particular sport in sponsorship deals, which promote the sponsors' products. The sponsorship funds hire the professional players and pay other costs of the games, and also are distributed to purchase equipment, coaching tuition and other elements, for the general good of the sport. This section describes some of the characteristics of these public programmes.

## 2.7.1 Public Sport Programmes

The main public programmes supporting sport and active recreation provide infrastructure for the sector. They promote participation in active recreation and sport, promote specific sports, and support sports people and their performance. They also provide support for major sporting events.

In most countries the provision and upkeep of *physical infrastructure*, like public sports grounds, sports halls, swimming pools, aquatic centres and stadiums at a local level, rests with local government. Increasingly funding comes from fees for usage or 'user pays', although significant funding still comes from local government in most of the countries reviewed here. Countries and States are increasingly incorporating infrastructure for active leisure, such as walkways and cycleways, into their general transport infrastructure. In some countries a national walkway system is being developed, and in these instances the infrastructure provision and upkeep is funded by agencies of central government (e.g. transport).

The other three types of programmes, namely *generic promotion* of active recreation and sport, *specific promotion* of sports and sports people, and *support of major events* are delivered either by central government or agencies dedicated to sport, or a mixture of both.

As examples, the **Canadian** central government funds general sports and fitness programmes (about CAN\$40 to \$50 million per annum); high performance sports (a dedicated CAN\$10 million per annum); and national sports organisations to provide coaches and officials, support for national teams and general operations (amounting to about CAN\$25 million annually for 50 organisations). The Canadian government also has provided significant funding for one-off events, such as the 1988 Calgary Winter Olympic Games.

The **Australian** government, through the Australian Sports Commission, allocated AUS\$89 million to sport in 1998-99. In addition, the Commission generated around AUS\$16 billion in revenue from corporate sources (such as sponsorship, hire of facilities and interest); from external sources (such as government departments and agencies); and from national sporting organisations<sup>8</sup>. The Australian Institute of Sport (AIS), a part of the Commission, operates sport development initiatives in support of the Commission's objectives. These include provision and funding of facilities, coaches and scholarships for athletes with potential to excel.

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<sup>8</sup> Australian Sports Commission,(1999); *Annual Report*.

Through the *Aussie Sport* initiative, AUS\$5.5 million per year is being spent on promoting children's participation in sport. A review showed that children who are exposed to the programme have a higher skill level and tend to play sport longer. More children now rank sport and recreation as being among their top three favourite things to do<sup>9</sup>.

The Australians estimated that in the 1990s, an average of AUS\$0.74 million was spent to achieve a 1% increase in children's participation in sport.

In **New Zealand**, the Hillary Commission for Sport Fitness and Leisure (set up by Act of Parliament in 1987<sup>10</sup>) is the government funding agency for sport. The Hillary Commission has responsibility for funding organised sport and active recreation organisations and sports clubs. The Commission, receives around NZ\$35 million a year (90% comes from the New Zealand Lottery Grants Board and the remaining 10% from Government). The Commission works with schools, community clubs, sports organisations, Maori organisations, regional sports trusts and local authorities to create opportunities for all New Zealanders to participate in sport and recreation, and to assist athletes and organisations to reach their full potential<sup>11</sup>.

In 1998/99 the Hillary Commission dispensed NZ\$5.7 million to 100 national sports organisations, NZ\$10.8 million to The New Zealand Sports Foundation to assist elite athletes and coaches, and NZ\$4.9 million to the Community Sport Fund to assist 4,500 local clubs. Seventeen regional sports trusts also receive funding from the Commission to promote sport and recreation in communities and to deliver a range of programmes, such as the KiwiSport programme<sup>12</sup>. Finally, the Commission funds national organisations such as The New Zealand Olympic and Commonwealth Games Association, and organisations supporting disabled athletes and sports science and medicine.

In New Zealand in 1996, the main source of funding for sport was from local government (over one-half), followed by central government (around 30%), the lottery and proceeds from gaming machines (around 10%). Other sources were charitable trusts and sponsorship, but it was not possible to estimate the actual totals from these two sources.

In New Zealand, major events, such as the Commonwealth Games and the Americas Cup (yachting), are funded separately from the Hillary Commission, usually led by sponsorship and regional fund-raising. Central government invariably contributes significant funds to underwrite such events.

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<sup>9</sup> Tasman Asia Pacific, Ernst & Young (1998)

<sup>10</sup> The Sport, Fitness and Leisure Act (1987).

<sup>11</sup> Hillary Commission; [www.hillarysport.org.nz](http://www.hillarysport.org.nz).

<sup>12</sup> The KiwiSport programme was launched in 1988 and is based on the Australian Sports Commission's Aussie Sport programme. Sport initiatives target young people, with adult sports modified to suit young people.

In the UK, the Lottery Sports Fund has spent £1,571 million on capital projects, such as the construction of the stadium in Manchester, which will host the 2002 Commonwealth Games. It plans to spend an additional £1,102 million over a ten-year period (commencing in 2000), the majority of which will go into local programmes to provide access to sport for all people. In 1994/95 local authorities in Britain supported voluntary sports clubs by £16 million, and it has been estimated that they could fund up to £970 million<sup>13</sup>.

The Government in the UK estimates that an additional £110 million in spending will be necessary over the next ten years to build and maintain sport and recreation initiatives (this includes capital expenditure).

### 2.7.2 Other Sources of Public Funding

Public funding for sport and active recreation also comes from other government departments such as transport, environment, health and education. The programmes considered in this section are those dedicated specifically to sport and active recreation.

The sources of funding for publicly-dedicated sports programmes include the following:

- central government funding direct to sport Ministries or statutory organisations;
- local government funding and provision, usually of sport and recreation infrastructure;
- funding obtained from lotteries dedicated to funding sport, generally through one or more statutory bodies;
- funding provided by a range of charitable bodies, such as community Trusts, and including organisations which generate profits from spectator sport, such as The Jockey Club in Hong Kong; and
- direct sponsorship from commercial firms, who sponsor sport teams and events and, at a local scale, active recreation events like fun walks.

The first two sources of funding from central and local government have been described in the previous section.

Lotteries, sometimes specifically called *Sports Lotteries*, provide a major part of the funding for public sport and active recreation programmes in a number of countries. New Zealand and UK are two countries where public sport and recreation programmes have benefited from the profits from lotteries. In these countries, despite the fact that the funds are generated from gambling by private individuals, the government retains an oversight on the bodies that disburse the funds from the lottery. In effect, therefore, the government has increased the funding for public programmes without having to commit more general government revenue.

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<sup>13</sup> Sport England (1999a)

*Charitable trusts* that support sport and recreation may generate their funds from a range of sources, from community savings banks, to horse racing clubs, to private family benefactor trusts.

*Sponsorship* by private businesses and industries generates a large volume of funding for sports and recreation internationally. Sponsoring businesses include airlines, car-makers, brewers, banks, telecommunications, soft drinks manufacturers and fuel companies. However, sponsorship initiatives from private sector corporations are highly dependent on the overall health of an economy. Vigorous competition and recession are two drivers of lower sponsorship support. Amateur sport, local clubs and associations are generally the ones to suffer when sponsorship is lower or withdrawn, while professional sport continues to capture what sponsorship support remains. Additionally, there is little commercial benefit for corporates investing in amateurs or local clubs and associations. For this reason Governments generally fund local sport.

The growth in sport and recreational activity as entertainment, and the growth in the possibility of using many media sources to broadcast sport, has led to increasing numbers of companies being willing and able to support sport through sponsorship. It is a subtle way of promoting a company, rather than hard sell techniques, such as advertising.

Private sector sponsorship spending alone (exclusive of additional advertising, promotion or philanthropic contributions) in **North America** in 1998 was estimated to be CAN\$6.8 billion, of which CAN\$1.2 billion was spent by Canadian companies in Canada<sup>14</sup>.

Sponsorship spending from companies in the **UK** increased from £265 million in 1994 to £311 million in 1997 (Sport England 1999a).

The **Australian** Sports Commission has estimated that the Australian Institute of Sport, by increasing its brand exposure to achieve recognition by 95% of the Australian population, has increased private sector sponsorship from AUS\$2 million in 1992 to AUS\$18 million in 2000.

The exposure a sponsor receives is only possible when a sporting event is highly broadcast, or the sports people being sponsored are nationally or internationally recognised. In consequence, high-level private sector sponsorship will only occur for sports people operating at high levels of sporting excellence.

Sponsorship and government funding can be complementary in providing the resources necessary for a healthy, robust sport and active recreation sector.

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<sup>14</sup> House of Commons (1998)

### 2.7.3 Public Sector Sport Revenue

Government receives some return for its spending on sport from admission and user charges to publicly provided facilities. It also receives taxation revenue from professional sports people and the sports sector.

The professional sport contribution to revenue of the Canadian Government illustrates how sport can contribute in this way:

- the six national Hockey Leagues pay CAN\$212 million per annum in income and payroll taxes, property and capital taxes;
- the Calgary Winter Olympic Games generated CAN\$129.4 million in taxes;
- the 1997 Canada Games generated CAN\$1.6 million for the province where it was held, CAN\$0.5 million for local government, and CAN\$2 million for the Central Government;
- the 1999 Pan-American Games generated CAN\$22.8 million in taxes, of which CAN\$11.4 million went to the Government.

On a much smaller scale, but no less important, the New Zealand economy received NZ\$339 million in taxes in 1996, an increase of 13% over 1991.

The public sector, therefore, receives some direct revenue from sport and recreation, as well as indirect fiscal benefits, such as reduced healthcare costs, as described in Section 3.

## 2.8 SPORT'S CONTRIBUTION TO GDP

This section draws together information from the preceding sections on the direct impact of sport on economies and shows how sport and active recreation can contribute to the national income of a country. It also describes the main components of sport's contribution to economies and compares sport's contribution with that of other industries.

National income is measured as GDP, and is generally comparable among countries in monetary terms. It can be calculated using two methods: production measures of GDP, and expenditure measures of GDP, as discussed below.

A nation's GDP can be measured as incomes earned by productive resources, and is called 'Production GDP':

$$\text{wages} + \text{salaries} + \text{interest receipts} + \text{rents} + \text{profits} = \text{GDP}$$

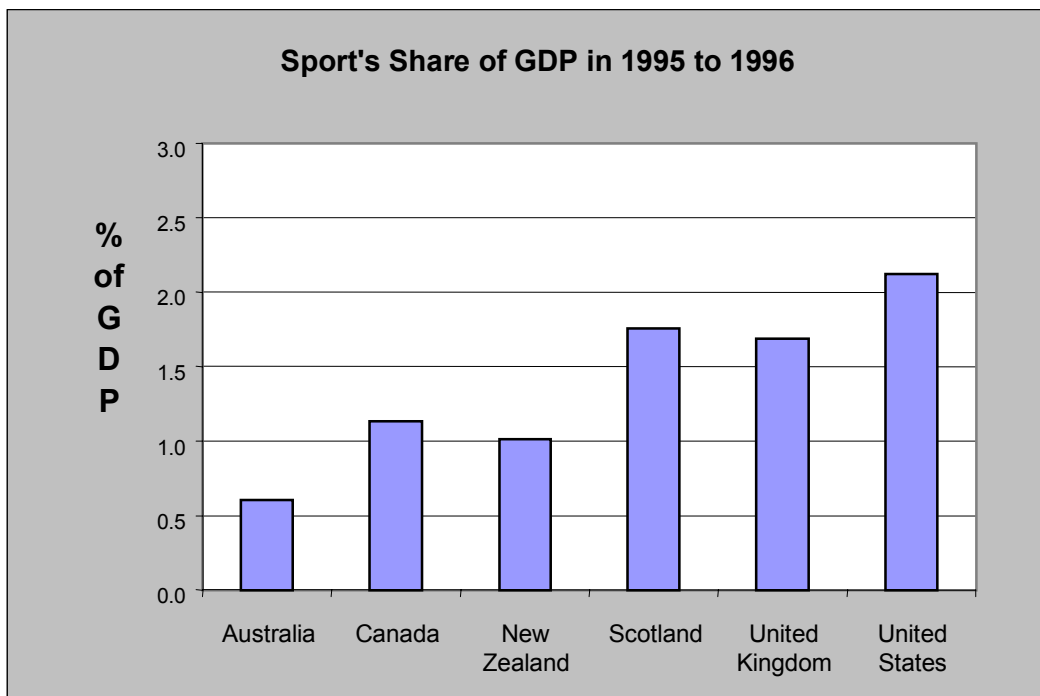
Alternatively, a nation's GDP can be measured as the expenditure on goods and services and is called 'Expenditure GDP':

$$\text{Consumption} + \text{investment} + \text{government consumption} + \text{exports} - \text{imports} = \text{GDP}$$

The main ways in which an industry contributes to GDP is in:

- creating employment and business opportunities;
- creating demand for expenditure on goods and services;
- producing goods and services for export; and
- creating demand for government expenditure.

The direct contribution of sport to GDP varies across countries, but generally the literature indicates a contribution ranging between 0.5% to 2% of GDP. As with the comparisons of consumer expenditure, employment etc., the approach to measuring sport's share of GDP differs between surveys and countries. In most cases figures will be underestimated, due to a lack of detailed data specifically applicable to sport. However, reasonably comparable estimates have been obtained for six countries and they are shown in the figure below.



Note : The above percentages are given as a guide only. The definitions and time frames for the data vary between the countries.

The United Kingdom figure includes the figures for Scotland

In 1996 the **Australian** sports sector's share of GDP was 0.6%, and 1.0% including the volunteer component. By 2001, the Australian Sports Commission forecasts the sports sector will contribute 2.2% to GDP, or more than double the 1996 contribution, which shows that the Commission expects strong growth in sport.

The House of Commons in **Canada** estimated the economic impact of sport to be 1.1% of the total GDP, and the composition of this is shown in the following table.



In **New Zealand**, in 1996, it was estimated that the total contribution of sport to GDP was NZ\$958 million, or 1% of New Zealand GDP (note: this is an underestimate, as it excludes the contribution of the non-profit sector, as comprehensive data were not available for this sector). This is an increase of NZ\$127 million, or 13%, since 1991.

The **Scottish** data, from **sportscotland**, estimate that the value added to the Scottish economy in 1998 from sport-related economic activity was £1.0 billion, or 1.8% of Scottish GDP.

Sport England estimated that in the **UK** the value added from the sports sector in 1996 accounted for UK£12.4 billion, or 1.7% of GDP (without the voluntary sector contribution).

In a 1997 paper, Meek estimated that the size of the **US** sports industry in 1995 was US\$152 billion, over 2.1% of total GDP. Additionally, he estimated that secondary economic activity in that year added an additional US\$259 billion to US GDP, which would bring the direct and indirect contribution to a substantial 5.7% of GDP.

The figures for the sectoral impact of sport on GDP for Canada and New Zealand in the table below show a similar pattern in both countries. Of these figures, the greatest contribution is from the production and sale of sports goods and services.

The incomes of sports people, including coaches, referees and administrators, comprise about one-half of the contribution from goods or from services. However, the contribution of employment is underestimated because it omits unpaid volunteers.

<b>Sectoral Impact of Sport on GDP</b>				
<b>Sector</b>	<b>Canada</b>		<b>New Zealand</b>	
	1995		1996	
	<b>GDP</b>		<b>GDP</b>	
	(CAN\$Mn)	(Share %)	(NZ\$Mn)	(Share %)
Sports people, including admin.	\$1,552.0	0.2%	\$112.3	0.1%
Sports goods, manufacture, wholesale, retail	\$2,975.0	0.4%	\$177.1	0.2%
Sports and recreation services	\$3,150.0	0.4%	\$247.5	0.3%
International Tourism			\$66.1	
Government, all levels	\$1,128.0	0.1%	\$355.5	0.4%
<b>Total Sport</b>	<b>\$8,805.0</b>	<b>1.1%</b>	<b>\$958.5</b>	<b>1.0%</b>
<b>Total Economy</b>	<b>\$781,786.0</b>		<b>\$94,940.0</b>	

Sources : House of Commons, Canada (1998);

Hillary Commission. The Growing Business of Sport and Leisure - An Update to '1996'

In New Zealand, the sports sector employs similar numbers of people to the insurance industry, to heavy construction, and to the forestry, fishing and all mining industries combined.

In GDP terms, the table below for Canada shows that the GDP contribution of sport is similar to that of the wood industry, the logging industry, the paper industry, and about one-half the size of the food industry.

<b>Sport Sector and Selected Other Industries Share of Canadian GDP (1995)</b>	
<b>Industries</b>	<b>Share of GDP (%)</b>
Agricultural & related services industries	1.81
<b>Sport</b>	<b>0.93</b>
Food industries	2.02
Printing, publishing & allied industries	1.07
Motor vehicle and motor vehicle parts & accessories industries	2.05
Wood industries	0.82
Paper & allied products industries	1.01
Logging & forestry industries	0.68
Mining industries	1.07
Fishing & trapping industries	0.12
Crude petroleum & natural gas industries	2.45
Aircraft & aircraft parts industries	0.39

Source : House of Commons, Canada (1998); Sport in Canada: Leadership

On a completely different comparative base, the sport contribution was 1.7% of UK GDP, while a figure quoted in the *Economist*<sup>15</sup> indicated that health expenditure is 6.8% of GDP. This implies that the sport contribution is about one-quarter of the size of the health sector in UK.

These comparisons show that sport and active recreation makes a substantial contribution to the economies of these countries and is now relatively "big business".

<sup>15</sup> Economist, 22 July 2000, p16

## 3 INDIRECT ECONOMIC BENEFITS AND COSTS OF SPORT

### 3.1 INDIRECT SPORT INDUSTRY BENEFITS

In measuring the economic impact of sport and active recreation (or of any industry) on an economy it is useful to take account of the industry linkages to supplier industries. Thus an expansion of demand (or private expenditure) for sport and active recreation goods and services will call for an increase in output from elements in the sport and active recreation industry. This is called the *direct increase* in output.

This direct increase in output will, in turn, call for expanded output from the supplier industries of the sport and active recreation industry. For example the direct increase may call for expanded output of sports clothing, and this, in turn, will call for expanded production of textile materials. This latter increase in output is *the indirect increase*, and can be traced down the supply chain, causing increases in a wide range of inputs (energy etc) at each stage.

Analyses of the flows between industries in a country can determine the linkages back from an industry, and then allow estimates of the total extent of all these indirect effects. Often, if a direct effect is \$1.0 million, the total of the direct plus all indirect effects will be an increase in output by the order of \$1.5 to \$2.0 million. In this case it would be said that the *multipliers* were 1.5 to 2.0.

In the study of the New Zealand sport and active recreation sector in 1993 BERL found that the output multiplier was 1.95. Thus for any \$1 million direct expansion of output in the sector, the total output in the whole economy would increase by \$1.95 million.

Similarly, the employment multiplier was 1.61, so any increase in employment in the sport sector by 1000 jobs would increase employment in the whole economy by 1,610 jobs.

These figures show that the indirect effects of expansion of the sport sector, by linkages to supplying industries, can spread growth effects quite widely through the economy.

### 3.2 LABOUR PRODUCTIVITY BENEFITS OF SPORT AND RECREATION

There is growing recognition in leading economies that labour productivity is one of the key forces driving the 'New Economy', creating the long period of sustained economic growth in countries like the US and Australia, and, of course, in China. Increased labour productivity is the phenomenon whereby a reduced number of employees can produce the same output of goods or services, given the same inputs and equipment.

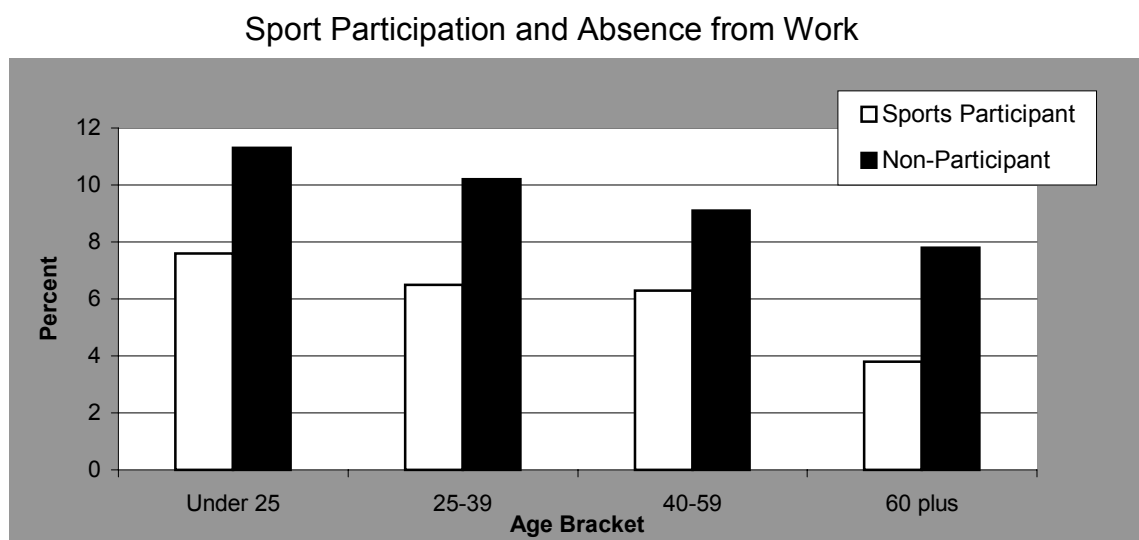
Labour productivity increases are assisted by sport in two main ways. Firstly, reduced absenteeism means fewer employees are needed for the workforce, and sport participation has been shown to reduce absenteeism.

Secondly, the benefits of sport and active recreation in terms of improving the physical and mental health of individuals are well documented and recognised. A consequential benefit of having an all-round healthier workforce is an increase in the level of productivity<sup>16</sup> at the individual level.

### 3.2.1 Sport Participation and Absenteeism

An increasing number of studies support a link between increasing sport and recreation activity and reduced absenteeism and increased worker morale. These studies have been carried out at the workplace where specific sports and recreation regimes are set up within the workplace, or a gym is provided for the employees. The majority of these studies report that increases in physical activity reduce absenteeism in the range of 20 to 50%. [A note of caution follows: care should be taken in quoting these results as absolute, as to date much of the data used to support these results have been obtained over relatively short periods, and use 'anecdotal' evidence, and the control groups used to benchmark comparisons haven't been ideal<sup>17</sup>.]

Some more robust household survey studies, such as a study in the UK in the 1980s<sup>18</sup>, observed the same positive link between sport and recreation participation and reduced absenteeism, in all age and income groups. This result is represented in the graph below.



Source: Gratton and Tice (1987), cited in Tasman Asia Pacific, Ernst & Young (1998)

<sup>16</sup> Productivity is a measure of the quantity of outputs relative to inputs used to generate the outputs. Outputs can be physical goods or a service. The output of a firm need not be tangible.

<sup>17</sup> Tasman Asia Pacific, Ernst & Young (1998)

<sup>18</sup> Gratton C & A Tice (1987); *Leisure Participation, Lifestyle and Health*, in Gratton C & P Taylor, Government and the Economics of Sport, Longman, Essex.

The improved health of sports and recreation participants is one contributor to lower absenteeism, and hence higher productivity. There could be other factors of a more psychological nature which make active people more likely to go to work regularly, and so it may be enough to note that there is a strong link between physical activity and reduced absenteeism.

The following is a list of companies that have recorded a drop in absenteeism by increasing the level of physical activity of employees:<sup>19</sup>

Absenteeism Effects from Corporate Exercise Programmes		
Company/Survey	Program Type	Absenteeism
Survey of Top 500 Companies	Fitness	Reduced absenteeism over 5 years
Blackmores Australia	Gym	40% reduced absenteeism
Johnson & Johnson	Fitness in factories	26% reduced absence than control
Mesa Corporation	Health promotion	After 5 years absences down by 50%
DuPont Corporation	Health & fitness programmes	14% less sick days than control
Signature Corporation	Fitness	Less likely to be absent
UK Household Survey	Active sport	33-50% reduced absenteeism
Westpac Bank	Fitness	29% reduced absenteeism
Cyanamaid	Fitness	1.8 days less absence than others Saving on 50 participants £44,500p.a.

Source : Cyanamaid data from Sport England (1999b)

Any reduction in absenteeism will have substantial effects on a firm's ratio of inputs to outputs. The costs of using other staff to cover an absent worker, as well as the cost of paying sick leave to the absent worker, add to the costs of inputs to produce the firm's outputs. Reduced absenteeism flows through to a lower input to output ratio and higher labour productivity<sup>20</sup>.

### 3.2.2 Active Sport Participation and Individual Productivity

Physical and/or health constraints of employees will prevent the labour resource from working to full capacity. It may be that participation in sport and recreational activities enable labour resources to *work better*, and subsequently increase productivity<sup>21</sup>. This is "one of the reasons that a lot of organisations are putting in place schemes to encourage their workforce to participate in sport"<sup>22</sup>.

A new wave of thinking would suggest that, if a workforce is fitter and hence healthier through active participation in sport and recreation, they would be able to absorb more knowledge and thus advance technology and increase human intellectual capital. If each individual is healthier and so more productive, this aggregates to higher productivity at a national level, and thus increases the GDP of a nation.

<sup>19</sup> Tasman Asia Pacific, Ernst & Young (1998)

<sup>20</sup> Tasman Asia Pacific, Ernst & Young (1998)

<sup>21</sup> Tasman Asia Pacific, Ernst & Young (1998)

<sup>22</sup> Black C (1998); Speaking about *The Sports Factor*, on ABC Radio National, Australia.

The following is a list of some organisations that have noted productivity improvements by increasing the level of physical activity by employees:<sup>23</sup>

<b>Productivity Effects from Corporate Exercise Programmes</b>		
<b>Company</b>	<b>Program Type</b>	<b>Productivity Improvements</b>
Union Pacific Railroad	Exercise	80% more productive 75% more concentration
Johnson & Johnson	Fitness	Positive attitude
NASA	Exercise Control	Stamina, endurance & decision-making 12.5% higher than non-participants
Canadian Life Assurance	Fitness	Participants 7% more productive Non-participants 4.3% more productive
Signature Corporation	Fitness for clerical/operations	8% more productive Non-members negative productivity Frequency of exercise correlated with productivity and absenteeism
Worksafe Australia	Lunchtime exercise	Mood, productivity, cognitive functioning, reactive time, sensory motor perception, compared with control

Source: Tasman Asia Pacific, Ernst & Young (1998)

A further example comes from a Canadian Government discussion paper that states that a 25% increase in the 1995 physical activity participation rate increased labour productivity in the whole economy by between 0.25 and 1.5%. And finally, a 1992 Canadian National Workplace Survey showed that more than 60% of companies with fitness programmes realised improved productivity, reduced absenteeism, reduced turnover and fewer accidents.

Aside from the direct effect on productivity from increasing participation in sport and recreation, employers have reported that improvements in employee morale, concentration and reduced stress levels flow from a more active workforce.

### **3.3 HEALTH BENEFITS AND COSTS OF SPORT AND RECREATION**

Exercise is repeatedly reported to have substantial health benefits. Many countries are realising the benefits that physical activity brings through reducing the costs of healthcare, and have been developing national programmes to increase the proportion of the population that engages in sport and active recreation. Individuals and government are not the only ones to benefit. Companies also see benefits from increased productivity and reduced absenteeism. However, not all the outcomes of increased physical activity are positive, as there are costs associated with sports injuries.

<sup>23</sup> *Tasman Asia Pacific, Ernst & Young (1998)*

The benefits of participation in sport and physical recreation result in much larger benefits than those measured solely in the national accounts<sup>24</sup>. Physical activity results in a general improvement in both physical and mental health. This in turn reduces public and private healthcare costs.

### 3.3.1 Sport, Activity and Health Levels

Increased participation in sport and active recreation improves individual health and reduces the incidence or delays the onset of a group of specific diseases. "Scientific evidence clearly links regular physical activity to a wide range of physical and mental health benefits. The evidence in relation to cardiovascular disease (CVD, i.e. coronary heart disease, stroke and hypertension) is overwhelming and widely known. Very strong and mounting evidence has recently become available for other health benefits in relation to non-insulin dependent diabetes, osteoporosis, colon cancer, anxiety and depression"<sup>25</sup>.

An Australian report estimates that, for every 1% of the Australian population that becomes "sufficiently active" each year, 122 deaths from coronary heart disease, non-insulin dependent diabetes and colon cancer would be avoided<sup>26</sup>.

In **New Zealand** there are a number of recent analyses of health cost effects from increased activity. The most recent is *Our Health Our Future: the Health of New Zealanders 1999*, a Ministry of Health report. The report has analysed what contribution various conditions make to premature mortality and disability outcomes. It measures these outcomes as Disability Adjusted Life Years (DALY's).

Much of the burden of disease can be attributed to modifiable risk factors, including lifestyle behaviours such as smoking, alcohol, diet and exercise. In estimating the DALY's for the top 15 conditions in 1996, physical inactivity was listed as a major modifiable risk factor for those conditions which resulted in 37.4% of the life-years lost. If physical activity was increased, the able-bodied life expectancy would be increased significantly.

In the first BERL study of the economic impact of sport in New Zealand, it was shown that the 1994 mortality from coronary heart disease, colon cancer and diabetes would be reduced by 15% to 22% if the whole adult population of New Zealand became physically active.

Thus, there is strong international evidence that increased sport and active recreation results in a higher level of health and wellbeing, and a lower incidence in the population of specific diseases.

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<sup>24</sup> Research Digest (1995); *The Economic Impact of Sport in Scotland*, p.8, Leisure Industries Research Centre, Universities of Sheffield and Sheffield Hallam.

<sup>25</sup> Tasman Asia Pacific, Ernst & Young (1998).

<sup>26</sup> Stephenson J, Bauman A, Armstrong T, Smith B, and Bellew B (2000). *The costs of illness attributable to physical inactivity in Australia: A preliminary study*. A report prepared for The Commonwealth Department of Health and Aged Care and Australian Sports Commission.

### 3.3.2 Sport, Activity and Reduced Healthcare Costs

Increased participation in sport and active recreation reduces healthcare costs to individuals and society by improving health and reducing disease.

A **Canadian** report states that physical activity has been found to be one of the most cost-effective disease prevention measures. The report also goes on to say that *all* Canadians have the ability to reduce healthcare costs by participating in sport and physical activity<sup>27</sup>.

Total healthcare costs do not relate solely to the cost of medical care. There are other areas that generate additional costs. Costs can be broken down into three areas: *direct medical costs*; *direct non-medical costs* (such as transport to hospital, private costs like special diets, and business costs like workplace rehabilitation); and *indirect costs* (such as loss of productivity and absenteeism)<sup>28</sup>. Estimating healthcare benefits and costs from sport, therefore, requires a broad-based investigation.

A survey of health costs from inactivity run in the State of **New York** by the Center for Disease Control and Prevention found that 59% of New York adults were inactive (by their definition). They estimated the total cost of this physical *inactivity* at over US\$3 billion and found that this cost was primarily borne by taxpayers and employers<sup>29</sup>.

The Australian Sports Commission estimated that if an additional 10% of the adult population in **Australia** regularly participated in “moderate and effective” exercise, AUS\$600 million would be saved from the Government’s health budget each year<sup>30</sup>. The direct costs only of the health care of the four main inactivity-related illnesses, coronary heart diseases, stroke, diabetes, and colon cancer totalled A\$306 million per annum.

The 1993 BERL study showed that in **New Zealand** savings in terms of reduced health expenditure, additional years of life gained and decreased incapacity could achieve savings of NZ\$163 million per annum if policies managed to get all New Zealanders participating in active leisure.

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<sup>27</sup> Towards an Active, Healthy Canada.

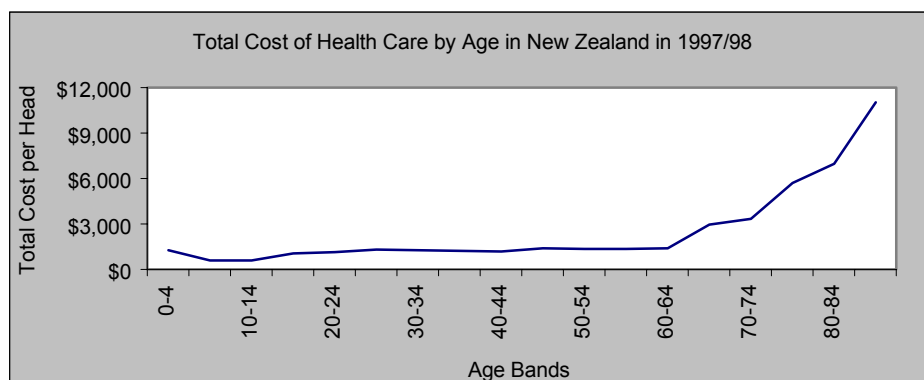
<sup>28</sup> Santerre R E and Neun S P (2000); *Health Economics: Theories, Insights, and Industry Studies*, The Dryden Press.

<sup>29</sup> Health Management Associates (1999); *Physical inactivity in New York State. An Economic Cost Analysis*, Prepared for the New York State Physical Activity Coalition.

<sup>30</sup> Australian Sports Commission (1998)



The prevalence of illnesses that result from physical inactivity generally increase with age. The total cost of health care per capita also increases rapidly in the older age groups, as the New Zealand example below illustrates.



Source: Ministry of Health, New Zealand

Combining these two general conclusions suggests that, if active recreation was increased in the older age groups, the potential savings in healthcare costs would be very high indeed. As a specific example, of the 122 deaths from the four main diseases that could potentially be saved through increasing physical activity in the Australian population, three-quarters of these deaths would occur in people over the age of 70 years.

More information on the health benefits of sport and the health status of people in Hong Kong will be available shortly from a review currently being carried out for SDB by Dr Stanley Hui of The Chinese University of Hong Kong.

### 3.3.3 Sport, Activity and Costs of Injury

Sport and recreation in most forms have a net benefit to society. However, there are some costs associated with sports injuries and deaths, which generally increase as participation in sport and recreation increases. Sport and recreational activities may result in accidental injury or illness, such as broken bones or heart attacks, which add to the burden of private and public health care spending, instead of alleviating it, as discussed above<sup>31</sup>.

<sup>31</sup> Cooke A (1994); *The Economics of Leisure and Sport*, Routledge, London.

The types of injuries that can occur when participating in sport can be categorised into three groups:<sup>32</sup>

- *Extrinsic Injuries*: are sporting injuries that result from an impact.
- *Overuse Injuries*: are injuries that result from overuse or repetition.
- *Acute Cardiovascular Events*: more likely to occur in inactive people who do strenuous exercise.

In New Zealand there is a national Accident Compensation Scheme which covers the costs to all individuals, whether these accidents occur at the workplace or at leisure. (The very existence of this scheme may predispose New Zealanders towards more risky activities than would be the case if they were required to carry individual accident insurance cover.) In any event, in the year to June 1996 in **New Zealand**, NZ\$27 million was paid to about 22,000 claimants who had a new injury in that year. In addition, on-going claims from about 14,600 previously-injured people totalled \$55 million<sup>33</sup>. The 36,600 claimants represent approximately 10% of all sports and recreation-related claims in the year to June 1996, the remaining 90% being classed as 'minor' claims and thus excluded from the national data.

The cost of 52 sports-related fatalities<sup>34</sup> in New Zealand in 1996 was estimated to be NZ\$31.6 million. This cost was estimated using an average age of death of 35, and a value of a life of \$607,000<sup>35</sup>. (The figure representing the economic value of a life is likely to be higher in 2000.)

Using these figures, the total economic cost of sports injury and fatalities in 1996 was NZ\$123 million. This figure represents only 6.9% of the total economic *benefits* from the sport and recreation sector in this year.

A study of all healthcare costs, conducted in the **UK**, found that up to the age of 40 there was a net cost from participation in sport, because of the cost of treating injury. However, above this age the health service made a net saving due to the health benefits gained from physical activity<sup>36</sup>.

This information confirms that, although there are costs associated with participating in sport and active recreation, the costs are likely to be far outweighed by the significant benefits, which include reductions in healthcare costs, increased productivity and reduced absenteeism. In addition, there can be significant benefits to individuals, as there is well-documented evidence that individuals' general wellbeing improves with increased levels of activity.

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<sup>32</sup> BERL, BRC (1993)

<sup>33</sup> BERL (1998)

<sup>34</sup> Those of working age i.e. 15 –64 years old.

<sup>35</sup> BERL (1998)

<sup>36</sup> Research Digest (1998); The Economic Impact of Sport in Scotland 1995, p.8

### 3.4 GENERAL NATIONAL BENEFITS OF SPORT

The previous sections have indicated indirect benefits of sport and active recreation to individuals, and to industries and businesses in the economy through linkages, labour productivity, improved health and reduced healthcare costs. There is also growing evidence that a more active population benefits society as a whole.

There are a number of benefits outside of the economic area which accrue to the nation as a whole, including:

- Social Cohesion** Sport can contribute in strong, fundamental ways to the national identity and pride of a nation. A universal sporting culture within a nation can increase the feeling of inclusion by all groups in the nation.
- Reduces Youth Crime Rate** Much criminal activity by youth is as a result of inactivity, boredom, rebellion, and peer pressure. Sport and recreation programmes give youth an opportunity to vent frustration, utilise energy positively and learn life skills and values. This also includes youth in the sporting culture of the nation.
- National Identity** Competitive sport at an international level can significantly increase international awareness of a nation which can have indirect benefit in generating a familiarity with their exported goods and services. The same benefits can accrue to high-profile international major sporting events.

## **4 SIZE AND NATURE OF THE SPORT MARKET**

The market for sport and recreation is unusual in that the potential size is determined largely by cultural characteristics, perhaps modified by "generic promotion" in the education system. The size of the market depends on the level of participation in sport, which in turn depends on the extent to which there is a sporting culture in the country.

The level of interest in purchasing sport goods and services will respond to private sector promotion or advertising, but the overall market size is more likely to be determined by various public programmes. These lift awareness of the indirect benefits to individuals from sport and active recreation, and thus increase total participation in sport.

### **4.1 STRONG DETERMINANTS OF SPORT MARKET GROWTH**

Leisure goods and services including sport and recreation are not seen as absolute necessities, in fact they could be thought of as luxuries. This means that as people's incomes grow they can be expected to spend a higher percentage of their income on sport and active recreation. In economic jargon this means that sport and recreation has a high income elasticity of demand.

We have analysed the New Zealand Household Expenditure Survey data and find that, on average, households spend 2% to 3% of their incomes on sport and recreation activities, and as incomes rise this spending increases strongly to over 5% of income in high income groups. On a global basis this means that, as incomes in countries increase, the demand for sports goods and services increase rapidly, and so the sport and recreation market will continue to grow strongly.

New technologies and high demand has generated growth markets for sports goods and equipment, and these are export opportunities being seized by Asia.

The increase in incomes around the world also implies that more people are in sedentary occupations (rather than manual jobs) and, as discussed in Section 3 above, participation in sport or active recreation can increase productivity. The health benefits from sport encourage people who become more aware of these benefits to demand more access to sport and recreation, and so maintain their health and wellbeing.

Finally, advances in technology are making entertainment media affordable by more people worldwide, and so are bringing sport events to expanding markets.

## 4.2 SPORT PARTICIPATION AND MARKET SIZE

The level of participation in sport and active recreation varies widely among countries. Published figures show participation ranging from about 30% to 80% of the population<sup>37</sup>.

Factors affecting national participation rates in sport include the extent to which there is a culture of sport and recreation in the society, and the mechanisms for introducing people to sport and encouraging them to keep participating. One key mechanism is introducing young people to a wide range of sport and recreation activities from an early age, so they can choose activities they enjoy. Familiarising young people with sports and activities through school and family participation not only establishes a large potential clientele for sport and active recreation but also encourages life-long participation. Consequently, societies which recognise the value of increasing sporting participation invest significant resources in school sport and programmes for young people.

The size of the sports market also depends on the extent to which each country's infrastructure for sport is developed (i.e. the number and quality of sports facilities, sports organisations and personnel, and sports training and development programmes).

Like other leisure markets, the sports market can be quite volatile and can fluctuate with the health of a country's economy. In Hong Kong, for example, sports participation grew from 1996 to 1998 (from 40% of the adult population in 1996 to 54% in 1998) but declined slightly in 1999 (to 45%) and there is evidence that the down turn in the economy in 1998/99 contributed to this fall. In Scotland between 1995 and 1998, a small decline in employment of 0.32% reflected some contraction in the economy. This was accompanied by a reduction in employment in sport from 42,145 in 1995 to 38,149 in 1998, a reduction by 3.3%. Employment in sport, and so probably participation in sport, is very dependent on the state of the overall economy.

### 4.2.1 Participation in Different Sports

The size and nature of the sports market also is influenced by the individual sports that are popular in each country. The table below illustrates this using data from Australia, Canada, Hong Kong and New Zealand.

The popularity of different sports reflects the traditions of the different countries and the geography and climate. For example, Canada's climate results in snow and ice sports being more popular than in the other countries shown here. In Hong Kong, martial arts appear in the top ten for women, reflecting the traditional interest in these sports.

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<sup>37</sup> Making direct comparisons of participation rates published by different countries is not straightforward because the number and types of sports included in the surveys are different. The time period during which people are asked to recall their sports participation also varies, with long recall periods (e.g. the last year) producing higher participation rates than short ones (e.g. the last 4 weeks).

	The Top Ten Most Popular Forms of Sport and Physical Activity						
	Total	Rank			Rank		
		Australia	Canada	Hong Kong	New Zealand	Canada	Hong Kong
Aerobics/fitness	3						5
Badminton			4		10	2	
Baseball		3			3		
Basketball		4	2		8	7	
Billiards/snooker/pool	10						
Chinese martial arts/wushu						8	
Cycling	7	9	9	7	7	10	6
Exercising at home				4			3
Exercise classes/going to the gym				6			4
Exercise (not defined)						4	7
Fishing	6						
Football		10					
Golf	4	2		3	2		10
Hiking/tramping			6	9		5	9
Hockey (ice)		1					
Jogging	8		5	5		6	8
Netball	9						
Skiing, cross-country/nordic					6		
Skiing, downhill/alpine					5		
Soccer		5	1				
Swimming	2	7	3	2	1	1	2
Tennis	5	6	8	8	9		
Touch football				10			
Volleyball		8			4		
Walking	1		7	1		3	1
Weight Training			10			9	

Note : The data for Australia is for all persons. The time frames and surveys differ between the countries

Activities such as tai chi are also more popular in Asian countries, particularly with older age groups. In Hong Kong this results in relatively higher participation rates among older adults than are evident in countries with a predominantly western culture.

As well as active participation, the size and nature of the sports market is influenced by the extent to which different sports attract spectators and followers. For example, in New Zealand, while rugby union does not appear in the top ten participant sports and activities, the size of the following this sport attracts makes it the national sport. Similarly, in Australia sports like Australian Rules Football attract a following that is far greater than the number of active participants. These spectators and followers generate support for these sports and revenue from attendance fees, and also create sizeable merchandising opportunities that increase sport's contribution to the economy, as achieved by the main UK soccer clubs like Manchester United.

#### 4.2.2 Frequency of Sports Participation

Societies that recognise the value of sporting lifestyles aim to increase the number of participants and the frequency of participation by individuals. Effective strategies adopted by a number of the countries studied include:

- Maintaining sports activity levels over all age ranges.
- Increasing relative participation by females

- Time management by individuals to enable participation in activity.
- Positive recognition that increasing age and poor health are reasons to exercise, not the opposite.

Individual factors have a greater or lesser effect in determining average participation rates in different countries. In many cases, including Hong Kong, it seems from the survey data available, that quite a large proportion of the population participate in sport or active recreation, but on an infrequent basis, rather than regularly. This means that a significant part of the population is in the market, but looked at from an economic perspective they make only infrequent 'purchases'. In this situation, potential exists to increase the economic benefits from sport, and the size of the sport and active recreation market, by employing strategies to increase the frequency of participation, as well as attracting more participants.

### 4.2.3 Reasons for Non Participation in Sport

In developing strategies to increase number of people participating in sport, as well as the frequency of participation, some countries have studied the reasons that people give for not participating in sport and active recreation.

Lack of time is the reason most often mentioned for this, and particularly for busy middle-aged people imaginative solutions may be needed to overcome this constraint. For example, some employers recognise the value of active employees and facilitate time management and participation in regular sport and exercise through workplace sports facilities and programmes (as illustrated in section 3.2).

Other reasons given as constraints could be seen as motives to participate in sport and active recreation. For example, people who say they have 'poor health', are 'too old', or have 'some disability' could benefit from a more active lifestyle and, with the right support, could become part of the sports market.

Two countries for which we have survey data about non participation that are generally comparable are Canada and Hong Kong. The results of these surveys are shown in the tables below.

<b>Reasons for Non-Participation in Canada - 1992</b>	
Lack of time	27%
No interest in sport	19%
Poor health	14%
Age	11%
Disability	4%

Source : House of Commons Canada (1998)

<b>Reasons for Non-Participation in Hong Kong - 1998</b>	
Lack of time	66%
Work	20%
No interest in sport	13%
Poor health	5%
No companion	2%

Source : Hong Kong Sports Development Board (1998)

In Hong Kong, 86% of the non-participating, very busy population gave lack of time or pressure of work as the reason for not taking part in sport or active recreation. This contrasts with Canada, where only 27% of non-participants stated lack of time as the reason for not taking part and 'work commitments' did not emerge as a key constraint at all. Strategies to increase sporting culture and lifestyles in Hong Kong would clearly have to address the time-competition and time-availability aspects. This implies that there is a need to help corporates and other employers understand more about the economic benefits of an active and healthier workforce.

### **4.3 VOLUNTEERS AND SPORT GROWTH**

Countries which have a long-established and strong sport culture such as Australia and New Zealand, have a high proportion of their populations involved in the broad range of sport and active recreation. The large majority of these people work at the administration, coaching and playing levels on a voluntary basis. There is, therefore, no direct financial cost to the nation, or businesses, for this involvement.

These volunteers who participate are stakeholders and often very strong advocates for sport, either 'their' sport or sport and active recreation in general. These volunteers in turn are generally available at little or no cost to assist in aspects of organising and hosting major sporting events.

The volunteers, as stakeholders, provide a potential promotion force for sport in general or specific initiatives to increase participation in sport and the sporting culture of the nation. The expansion of volunteer participants in sport provides a sound basis for relatively low-cost strategic initiatives to expand growth of sport and the sporting culture.

### **4.4 MARKET FACTORS IN HONG KONG SPORT**

The main components of the sport market are internal (i.e. local households) and external (i.e. the inbound tourism demand, either for locally available sports and active recreation facilities or for major sport events).

Internal demand for sport is dependent on the rate of participation in the community. In Hong Kong, the surveys indicate that, while there is a moderately large percentage of the population which participate in sport and active recreation at least once per year, the frequency of participation is not very high. This indicates that the sporting culture in Hong Kong is not particularly strong at present.



The other indicator is that, at present, there is not a large percentage of the population who volunteer for sport and active recreation. Consequently, there is not a substantial base of stakeholders who will promote sporting initiatives.

External demand is influenced by the sporting opportunities available for visitors and the extent to which they are promoted. Hong Kong already successfully attracts new tourists through a few major events, including the Rugby Sevens and Golf Tournaments, but sport tourism is still a relatively undeveloped market sector.

## 5 POTENTIAL FOR SPORT BENEFITS TO HONG KONG

This report demonstrates how sport and active recreation can benefit the economy of a country and how these benefits can be quantified. It also looks at some of the factors that influence the size and characteristics of sports markets. The report uses examples from a number of countries that have estimated the economic impact of their sports sector to show both the nature and scale of the economic benefits that sport can deliver. It also considers the extent to which these benefits could be realised in Hong Kong.

Considering internal market factors in Hong Kong indicates that there is a relatively large market (around one-half of the population take part in some form of sport or recreation) but a substantial number of people are infrequent participants (around one-third of participants only play sport once or twice a month). The challenge for the Hong Kong sports sector is to turn this "interest" into more committed participation, as well as increasing the appeal of sport and active recreation to non-participants.

Research indicates that lack of time is a key reason why Hong Kong's residents don't participate in sport, but more work is needed to find out to what extent this is a real constraint or an excuse. A better understanding of the motives and barriers to sports participation is needed. This will be achieved through more detailed market surveys, such as SDB's proposed *Millennium Sports Study*.

Relative to the other countries considered here, the voluntary sports sector in Hong Kong is small. The potential to increase volunteer involvement in Hong Kong will depend on the extent to which sports organisations are successful in recruiting and retaining volunteers. Volunteers often feel that their role is not sufficiently acknowledged and valuing their contribution in monetary terms helps to underline the essential role they play, both to the sports sector and the wider community. Raising the profile of volunteers in this way can be used to attract more volunteers, as well as retain existing ones.

Expanding sports participation and volunteer involvement in Hong Kong will increase the economic benefits of sport. Experience from other countries suggests that focussing on sports popular in neighbouring countries will enable Hong Kong to capitalise on the benefits of regional competition. Likewise, hosting major events, such as the Asian Games 2006, and regional competitions will expand the sport market in Hong Kong. Small increases in sport tourism also will bring a noticeable boost to spending and employment in the sports sector.

The potential of Hong Kong's sports sector can only be realised by a more detailed assessment of the potential benefits and quantifying the current economic impact. In particular, Hong Kong requires a fuller knowledge of the present shape of the sector, particularly household expenditure levels and patterns; production and export of goods and services; and the characteristics of employment and sport tourism.

A separate report by BERL<sup>38</sup> assesses the feasibility of estimating the economic impact of sport in Hong Kong and concludes that:

*a worthwhile assessment of the economic impact of sport and active recreation in Hong Kong can be completed.*

The feasibility report proposes a framework for analysing the economic benefits of sport in Hong Kong and describes the data that will be required to estimate these benefits.

A baseline study that quantifies the economic benefits of sport will enable the Hong Kong sports sector to:

- Demonstrate that sport and active recreation is an industry in its own right that delivers tangible benefits to the economy.
- Show how the sports sector's contribution to the economy compares with that made by other types of economic activity. In most of the countries studied here this comparison shows that the contribution of the sport and active recreation sector is on a par with, or greater than, a number of other key industries.

A number of countries also have carried out repeat studies and demonstrated that their sport sectors are more dynamic than many other sectors, with both the overall value of the sports sector and employment growing more rapidly than in more traditional industries.

- Enable the value of indirect benefits to be quantified and better understood. This includes "valuing" the contribution that the voluntary sector makes to sport sector, as well as understanding the savings that come from a more active and healthier population and workforce.

As the other countries considered here have found, this information is invaluable for raising the profile of sport and providing the "hard facts" to demonstrate to both government and the commercial sector that sport can be big business and an excellent investment.

In conclusion, this review indicates that Hong Kong has a significant potential for achieving substantially increased benefits to business and the economy from sport and active recreation. Assessing the economic impact of the sports sector will be an important step towards realising this potential.

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<sup>38</sup> BERL (2000)

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