



Assessment of the economic impact of the Davis Cup

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- The Davis Cup is “the Olympics of tennis” (according to Bob Funk, Oklahoma Chamber of Commerce). It is the only competition in which top quality tennis players represent their countries in a team event. Its importance as a brand and as a contributor to players’ individual brands is well known. Less well known is the commercial and economic value of the competition.
- The Davis Cup generates significant **commercial revenues** - through sponsorship and advertising, TV rights and ticket sales; for the host nations, the visiting nations and for the ITF. These were worth a total of around **\$50 million** in 2008. A large proportion of those revenues is recycled into tennis.
- But the commercial impact of the Davis Cup is only part of the story. The competition also generates a large **economic impact**, boosting tourism and related industries in the host nations. That economic impact was worth around **\$160 million** in 2008, or **\$3.2 million per tie**, and is likely to be worth over **\$600 million over the four-year period** 2007 – 2010.
- That economic impact breaks down into four components:
 - **Direct effects:** the portion of ticket revenues and other visitor spending associated with the Davis Cup that constitutes value added by the tourism industry in the host city.
 - **Indirect effects:** the portion of ticket revenues and other visitor spending associated with the Davis Cup that spills down the supply chain to the tourism industry, but is retained in the host country.
 - **Induced effects:** the portion of wages and salaries attributable to the direct and indirect effects of the Davis Cup that is spent on value added produced in the host country.



- **Catalytic effects:** the longer-term benefits to the host city or country of hosting the Davis Cup, including the impact on other industries of any improvements in infrastructure (transport, hotels and restaurants, sporting venues) associated with the Davis Cup, and the impact on the brand of the host city or country and its attractiveness as a tourist destination in the longer term.
- Because of the nature of the competition, the economic impact of the Davis Cup is distributed around many countries and across many years rather than focused in one location in one short space of time.
- For some of the host countries, the Davis Cup represents their only opportunity to host a world-class sporting event, and as such it offers an unparalleled opportunity for them to boost their brand as a tourist destination. The catalytic effects are therefore likely to be large – perhaps larger than we estimate.
- The overall economic impact of the Davis Cup is substantial – probably larger than that of the Ryder Cup, for example. But the **value for money** offered by the Davis Cup is particularly high. Value for money is the total economic impact divided by the total cost to the ITF and host nations associated with holding the competition.
- The Olympics and other major world sporting events offer huge economic impacts, but typically rather low value for money. In fact, in many cases, the value for money is less than one, so that the economic impact is smaller than the economic cost of hosting the event.
- The Davis Cup offers great value for money compared to most other sporting competitions. The costs of hosting tend to be small but the economic impacts – particularly the catalytic effects for smaller cities – are substantial.
- A shift to a different format for the competition, where it became focused on one city and in one period of time, would probably see most if not all of these catalytic effects disappear.



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1 Introduction

The International Tennis Federation approached Fathom Consulting, via Four Communications, to quantify the global commercial and economic impact of the Davis Cup, and place them in the context of other estimates of the impact of other major sporting events. This report summarises the results of our research.

The rest of this report is organized as follows:

Section 2 summarises our key results for the Davis Cup

Section 3 places the Davis Cup in the context of other sporting events

Section 4 offers some conclusions

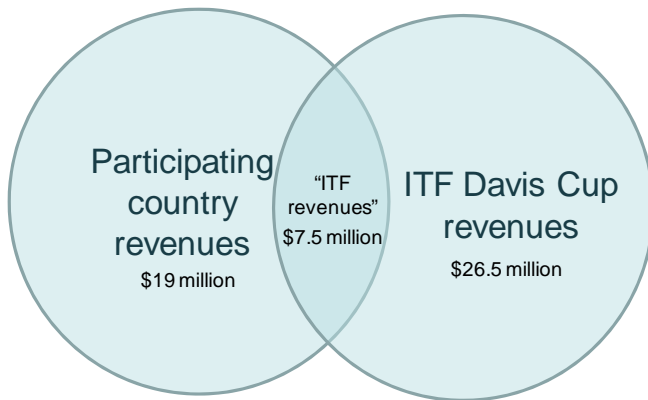


2 Commercial value and economic impact of the Davis Cup

2.1 Commercial value

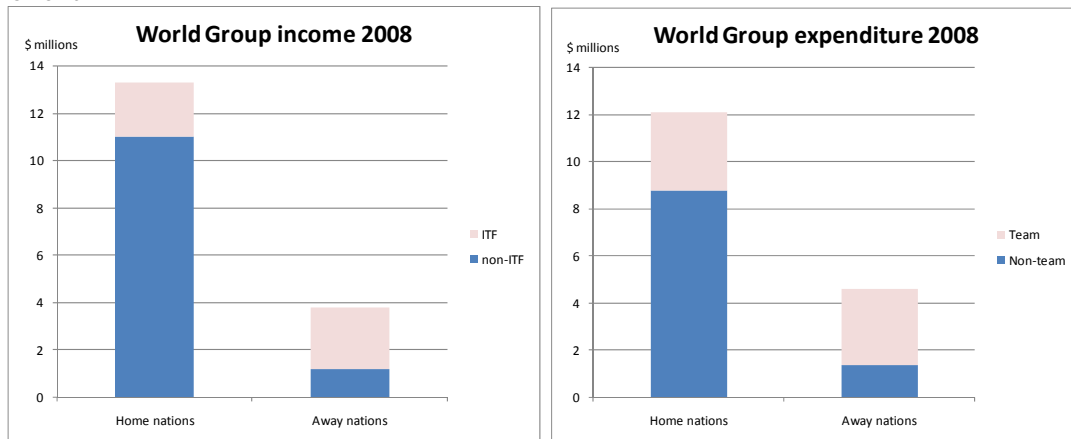
The Davis Cup generates revenues for the ITF and revenues for the participating countries, which include transfers from the ITF. These revenues come in the form of sponsorship, advertising, ticket sales and media rights. Using 2007 data on commercial revenues for world group countries combined with 2008 data for ITF revenues and global ticket sales, we estimate that the total commercial value of the Davis Cup in 2008 was \$53 million. Figure 1 below shows how that commercial value breaks down across participating countries and the ITF.

Figure 1



Participating countries accrued a total of \$26.5 million from the Davis Cup in 2008 – the same as the revenues accruing to the ITF, net of transfers to host nations. For the countries in the world group, we have estimates of how income and expenditure breaks down across home and away nations and ITF/non-ITF revenues; team/non-team expenditures. These are shown in Chart 1.

Chart 1





For the world group countries, total income from the Davis Cup is slightly ahead of total expenditure, implying that the participating countries make a small net profit on the competition, around \$400,000 in 2008.

Total commercial revenues in 2007 came to \$46.8 million, of which \$23.3 million accrued to participating nations and the remainder to the ITF (net of transfers to participating nations). Given the global economic recession that we have now entered, it is likely that 2009 and 2010 revenues will be a lot smaller – but it is still probable that the total commercial value of the Davis Cup over the four year period between 2007 and 2010 will be around \$180 million, split 50:50 between participating nations and the ITF.

2.2 Economic impact

The overall economic impact of the Davis Cup is much larger than its commercial value. It includes the impact on tourism and other industries in the host nations springing from the influx of visitors arriving to watch the Davis Cup. Our estimates suggest that this economic impact amounted to \$160 million globally in 2008, and will probably exceed \$600 million over the four years between 2007 and 2010.

The economic impact breaks down into four components:

- Direct effects: the portion of ticket revenues and other visitor spending associated with the Davis Cup that constitutes value added by the tourism industry in the host city.
- Indirect effects: the portion of ticket revenues and other visitor spending associated with the Davis Cup that spills down the supply chain to the tourism industry, but is retained in the host country.
- Induced effects: the portion of wages and salaries attributable to the direct and indirect effects of the Davis Cup that is spent on value added produced in the host country.
- Catalytic effects: the longer-term benefits to the host city or country of hosting the Davis Cup, including the impact on other industries of any improvements in infrastructure (transport, hotels and restaurants, sporting venues) associated with the Davis Cup, and the impact on the brand of the host city or country and its attractiveness as a tourist destination in the longer term

Figure 2 is a schematic diagram showing how the various components of the economic impact relate to the commercial revenues and visitor spending associated with the Davis Cup. The total commercial value of the Davis Cup (described above) is captured in the red shaded area in Figure 2, while the total economic impact is the sum of the blue shaded areas.



Figure 2: schematic of the commercial value and economic impact of the Davis Cup

Ticket sales, sponsorship, advertising revenues, media rights		Visitor spending, accommodation, food, entertainment	Visitor spending, travel
Total spending attributable to the Davis Cup			
Direct impact		Indirect impact	Imports
Total value added in tourism-related industries and their supply chain, attributable to the Davis Cup			
Wages & salaries		Profits	
Induced impact	Saving	Imports	

Catalytic impact

The **direct impact** is a fraction of the total spending in the host country that is attributable to the Davis Cup – that fraction which results in an increase in value added in the entertainment, hotels, restaurants and travel industries in the host country. Only a fraction of the total expenditure in those industries results in extra value added: the rest is spent on bought-in goods and services. The total direct impact of the Davis Cup was around \$54 million in 2008, but there is a wide margin of uncertainty around this estimate. The uncertainty reflects a number of key assumptions:

- What is the average effective ticket price? Host countries report ticket prices that average \$114 per person per day, and lie in the range \$20 to \$220. But that average conflicts with the implied average ticket price from the World Group countries, based on their total ticket revenues divided by the number of tickets sold, which comes out at only \$24 in 2007. Part of this discrepancy is probably because a large proportion of the tickets sold is discounted, and a further proportion is packaged up as part of sponsorship deals where the marginal price of each ticket might not be reported. Reflecting this uncertainty, we have assumed that the ‘true’ average effective ticket price lies in the range \$25 to \$75, around an average of \$50 per person per day.
- What proportion of the tickets sold goes to non-locals? Non-locals incur travel and possibly accommodation costs in attending the event - costs that locals can avoid. We have assumed that 65% of ticket holders are non-local to the host



city, of which a high proportion will usually be foreign nationals. That compares with survey results across a range of major sporting events collated by UK Sport, where the average proportion of non-local ticket holders for comparable events is 79%.

- What proportion of non-local visitors stay overnight? Overnight visitors will incur accommodation costs which day-trippers can avoid, though their travel costs might be smaller than those of day-trippers. We have assumed that 50% of all visitors associated with the Davis Cup competition are spectators, while the remainder are competitors and their entourage, officials and media representatives. That is consistent with the share of total visitor spending attributable to spectators across a range of sporting events according to UK Sport. Then we have assumed that 50% of spectators stay overnight, while all the other visitors do so: again that is consistent with the evidence gathered by UK sport across a range of competitions.
- How much do overnight visitors spend on subsistence, which includes food and accommodation expenses? On the accommodation side, a number of host countries have supplied information to the ITF on the average hotel room rate for visitors to the Davis Cup. Assuming that there is an average of 1.7 occupants per hotel room, the implied average spending on accommodation per person per night comes to \$152. UK sport provide estimates of average spending on subsistence overall (accommodation plus food) which imply that food spending of a further \$14 per person per night. It is possible that the hotel room rates include some charge for food. But the important number is food plus accommodation, which averages \$166 per person per night for overnight visitors across a range of sporting events, according to UK Sport.
- We have assumed that day-trippers also spend \$14 per day on food, the same as overnight visitors.
- How much do non-local day-trippers and overnight visitors spend on travel to get to and from the event? UK Sport provides an estimate of this number, which is \$31 per visitor per day. We have assumed that day-trippers incur these travel expenses every day, while overnight visitors only incur them once over the duration of their trip.
- What proportion of the total spending associated with the Davis Cup is attributable to visitors, and what proportion to the organizers of the event? Evidence from UK Sport suggests that visitor spending accounts for 87% on average of the total spending across a range of sporting events.

The key uncertainties in calculating the direct impact of the Davis Cup are summarized in Table 1 below, which shows how sensitive the total direct impact is to assumptions about the average ticket price and total spending for overnight visitors per night.



Table 1

Total direct impact, \$ millions		Total spending / night								
Ticket price	50	82	115	147	179	212	244	276	308	341
5	11	17	23	29	35	41	46	52	58	64
15	14	20	26	32	38	44	50	56	62	68
25	18	24	30	36	42	48	54	60	66	72
35	21	27	33	39	45	51	57	63	69	75
45	25	31	37	43	49	55	61	67	73	79
55	28	34	40	46	52	58	64	70	76	82
65	32	38	44	50	56	62	68	74	80	86
75	36	41	47	53	59	65	71	77	83	89
85	39	45	51	57	63	69	75	81	87	93
95	43	49	55	61	67	73	79	85	91	97
105	46	52	58	64	70	76	82	88	94	100

The yellow area defines a plausible range for the total direct impact, suggesting that it lies in the range \$36 million to \$71 million for 2008.

The direct impact, above, is the value added generated in the tourism-related industries in the host nation as a result of the spending associated with the Davis Cup. But, as noted above, a proportion of that spending results not in direct value added in tourism-related industries, but instead ripples down the supply chain to those industries, resulting in an increase in the bought-in goods and services sourced from other industries. Some of those bought-in goods and services are sourced from the host country, but some are imported from abroad. Again, a fraction of the spending on the locally sourced goods and services results in extra locally produced value added, in the supply chain to the tourism industry – the rest is imported. It is possible to trace these effects down the supply chain through an infinite number of steps, with a fraction of the initial spending 'leaking' into imports at each step. The sum of all the value-added that is created in the local supply chain as a result of the initial spending rippling down is what is termed the **'indirect' impact**. Typically the total indirect impact will be some fraction of the total direct impact, though in rare cases the indirect impact can in principle exceed the direct impact. In the case of the Davis Cup, the indirect multiplier – the ratio of the indirect impact relative to the direct impact – is 0.8.

The key assumptions in calculating the indirect multiplier are much less uncertain than those surrounding the direct impact. The indirect multiplier depends on the share of value added and the share of imports in gross output in tourism-related industries, and in those industries in the supply chain to tourism related industries. These shares can be readily derived from official data on the supply structure of the UK economy. But the indirect impact is the indirect multiplier multiplied by the direct impact – so the uncertainties surrounding the magnitude of the direct impact also apply, in equal measure, to the indirect impact.

The value added created directly and indirectly as a result of the Davis Cup is split between profits accruing to the shareholders in the affected industries, and wages and salaries accruing to their employees. Those wages and salaries are themselves split, into savings, spending on locally produced goods and services, and spending on imported goods and services. The portion that results in locally produced value added is known as the **'induced' impact**. Again, the induced multiplier - the ratio of the induced impact compared to the direct plus the indirect impact - can be derived



from official data on household spending patterns and, in the case of the Davis Cup, comes out at 0.4. Like the direct and indirect effects, the key uncertainties surround the ticket price and total spending per visitor per night.

Taking the direct, indirect and induced impacts together yields an estimate of the total 'traditional' impact of the Davis Cup. Table 2 shows how sensitive our estimate of the total traditional impact is to assumptions about the ticket price and the total amount of spending per visitor per night. The table shows that the total traditional impact lies around \$134 million, in the range \$89 million to \$178 million in 2008.

Table 2

Traditional impact, \$ million total		Total spending / night									
Ticket price	50	82.3	114.6	146.9	179.2	211.5	243.8	276.1	308.4	340.7	
5	26	41	56	71	86	101	116	131	146	161	
15	35	50	65	80	95	110	125	140	155	170	
25	44	59	74	89	104	119	134	149	164	179	
35	53	68	83	98	113	128	143	158	173	187	
45	62	77	92	107	122	137	152	166	181	196	
55	71	86	101	116	131	145	160	175	190	205	
65	80	95	110	124	139	154	169	184	199	214	
75	89	103	118	133	148	163	178	193	208	223	
85	97	112	127	142	157	172	187	202	217	232	
95	106	121	136	151	166	181	196	211	226	241	
105	115	130	145	160	175	190	205	220	235	250	

The traditional impact is essentially a measure of how the influx of money to the host nation that is attributable to the Davis Cup ripples around that economy, and with what impact on the value added created in that economy.

What the traditional impact misses is the extent to which hosting a major sporting event can contribute to the longer-term prospects for the host city or host nation. These spillover or '**catalytic**' impacts are difficult to measure but can be large. In the case of the Davis Cup, the catalytic impacts are likely to be important – perhaps more important than the traditional impacts – for those countries that would not normally have an opportunity to host a major world sporting event.

This is a particular strength of the current format of the Davis Cup: it offers 'small' cities an unparalleled opportunity to invest in their brand and boost their perception as a tourist destination. There are both tangible and intangible aspects to these catalytic impacts. Tangibly, hosting the Davis Cup can provide the justification for new investment in the host nation in transport and tourism infrastructure, as well as in sporting venues. Transport links can benefit; hotels and restaurants can move to a higher level; and sporting venues can be built or improved. All of those infrastructure improvements can contribute to increased value added in those industries for years to come. Intangibly, global media coverage of the event creates a platform for effective marketing of the 'brand' of the host city or country, with a long-lasting potential impact on tourism revenues and inward investment.

The uncertainties surrounding the magnitude of any catalytic impact are probably greater than those surrounding any of the traditional impacts. Our central estimate puts the total catalytic impact around \$27 million in 2008, but it could easily be twice as large or half as large as that.



Putting all of these impacts together, we estimate that the total economic impact of the Davis Cup lies around \$160 million in 2008, in the range \$107 million to \$214 million. That compares with an estimated impact of \$142 million during 2007.

Given that there were 50 ties during 2008, that implies an average economic impact worth \$3.2 million in value added per tie. That compares to other estimates of the economic impact of the Davis Cup in US cities that have hosted it, which average \$4.4 million per tie. Table 3 sets out the range of estimates that we have found for the economic impact of the Davis Cup – by city, and the implied global total if all ties generated the same economic impact in their host nation.

Table 3

Other estimates of economic impact of Davis Cup, \$ millions	per tie	Implied global total - US basis
Dallas	7.0	350
Hawaii	2.8	140
Oklahoma	4.0	200
Winston-Salem	2.2	109
Winston-Salem 2	5.8	290
US average	4.4	218

Our central estimate of the impact per tie is \$3.2 million, some 25% lower than the average across other estimates. That difference reflects the fact that the impact in countries outside the USA is likely to be smaller in dollar terms than the impact in the US – hotel room rates and food and travel costs are probably lower.

Given that we are now in a global recession, it is likely that the economic impact in 2009 and 2010 will be lower than in 2008. But, over the four-year period between 2007 and 2010, the total global economic impact is still likely to exceed \$600 million.

The total global economic impact is distributed across participating host countries essentially according to total ticket sales in each of those countries. Chart 2 shows how the impact was distributed during 2008.



Chart 2

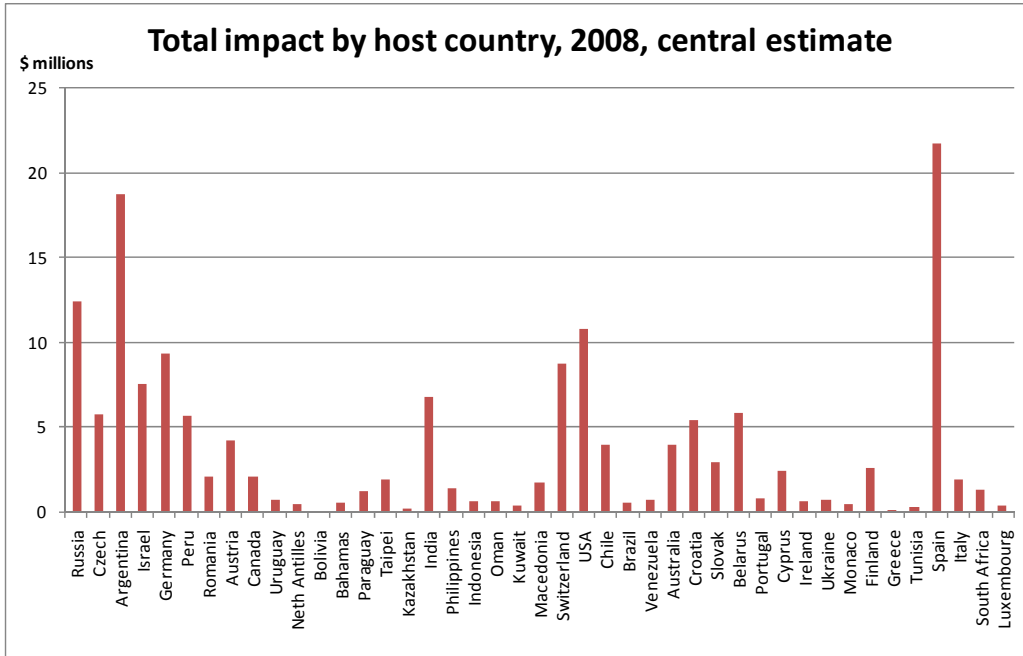


Chart 2 shows our central estimates for the economic impact of the Davis Cup by country. However, just as with the global aggregates, we should emphasise that there are wide margins of uncertainty around these estimates. In particular, it is likely that ticket prices, not to mention hotel room rates, food and travel costs etc vary substantially across countries.

Table 4 shows how the traditional and total economic impacts were distributed across the World Group and other participating groups in 2008. The World Group accounted for 72% of the total effect, calibrated by its share of total ticket sales.



Table 4

	Ticket sales	Traditional economic impact	Total economic impact
	Share	\$000s 2007	\$000s 2007
World Group	72%	96,641	116,017
Americas Zone Group I	4%	5,142	6,173
Americas Zone Group II	1%	1,863	2,237
Asia/Oceania Zone Group I	8%	10,178	12,219
Asia/Oceania Zone Group II	2%	2,276	2,733
Europe/Africa Zone Group I	8%	11,053	13,269
Europe/Africa Zone Group II	5%	6,413	7,699
Total		133,568	160,347



3 How the Davis Cup compares to other sporting events

3.1 Total economic impact in context

Table 4 shows a range of estimates of the overall economic impact of a number of other major sporting events, which we have scaled up to a notional 4-year total, for ease of comparison.

Table 4

	SOURCE	\$ millions, implied four-year cycle
Football: champions' league final, Moscow	Professor Simon Chadwick, Director of Coventry University's Centre of the International Business of Sport	252
Football: champions' league final, Athens		130
Football: UEFA cup final Glasgow 07	Experian	46
Rugby World Cup 2007	not known	1,800
Tennis: Australian Open 2004	Graeme Kinross-Smith	541
Tennis: US Open, NYC, 2001	NYC Comptroller's Office	1,676
Tennis: US Masters, Indian Wells, 2001	School of Business and Public Administration, GWU	400
2000 Flora London Marathon	UK Sport	173
Motor racing: British F1 GP 2002	Motorsport Industry Association	124
Motor racing: British F1 GP 2008	not known	144
Ryder Cup Valderrama 1997	not known	112
Ryder Cup Ireland 2006	Anderson Economic Group	116
Ryder Cup Boston 1999	not known	206
Football: World Cup Japan	Dentsu Institute	11,000
Olympics: Atlanta 1996	Humphrys & Plumber	5,100
Olympics: Sydney 2000	KPMG	5,100
Olympics: Sydney 2000	Andersen	4,500
Olympics: Sydney 2000	NSW Treasury	4,500
Olympics: Athens 2004	Balfousia-Savva	10,200
Olympics: Athens 2004	Papanikos	15,900
Olympics: Beijing 2008	Goldman Sachs	32,000
Average		4,477
Average across all major international sporting events	per day	1

Our central estimate of the economic impact of the Davis Cup over a four-year cycle comes out at around \$600 million. The closest comparable event in the list above is the Australian Open Tennis, which (grossed up over four years, ie the sum of four individual events) comes to \$541 million. The economic impact of the US Open tennis is much larger, at \$1.7 billion, but the US Masters tennis is smaller at \$400 million.



Of course, we cannot be sure about the accuracy of these other estimates of economic impact, and it is likely that each one has employed a different methodology. In particular, the estimates of the impact of the 2007 Rugby World Cup and the Football World Cup in Japan look suspiciously high. But the overall conclusion is that our estimate of the overall impact of the Davis Cup is comfortably within the range of other estimates of the impact of major sporting events, and possibly towards the low end of that range.

There is a general distinction between the events set out in Table 4 and the Davis Cup: all of the events in Table 4 are focused in one country or city, and in one short space of time. The impact of the Davis Cup in aggregate across all countries is in the same range as the events in Table 4 – but the Davis Cup impact is distributed across many countries and over the whole year.

3.2 Value-for-money

The distribution of the Davis Cup impact has positives and negatives. On the negative side, it does not easily generate the same visibility that highly focused, intensive competitions can create. On the positive side, it implies that the costs incurred in hosting the competition are kept down, while the benefits for each host country are potentially large in relation to those costs. Another way of putting this is that the current format of the Davis Cup means that it offers great value for money for host nations.

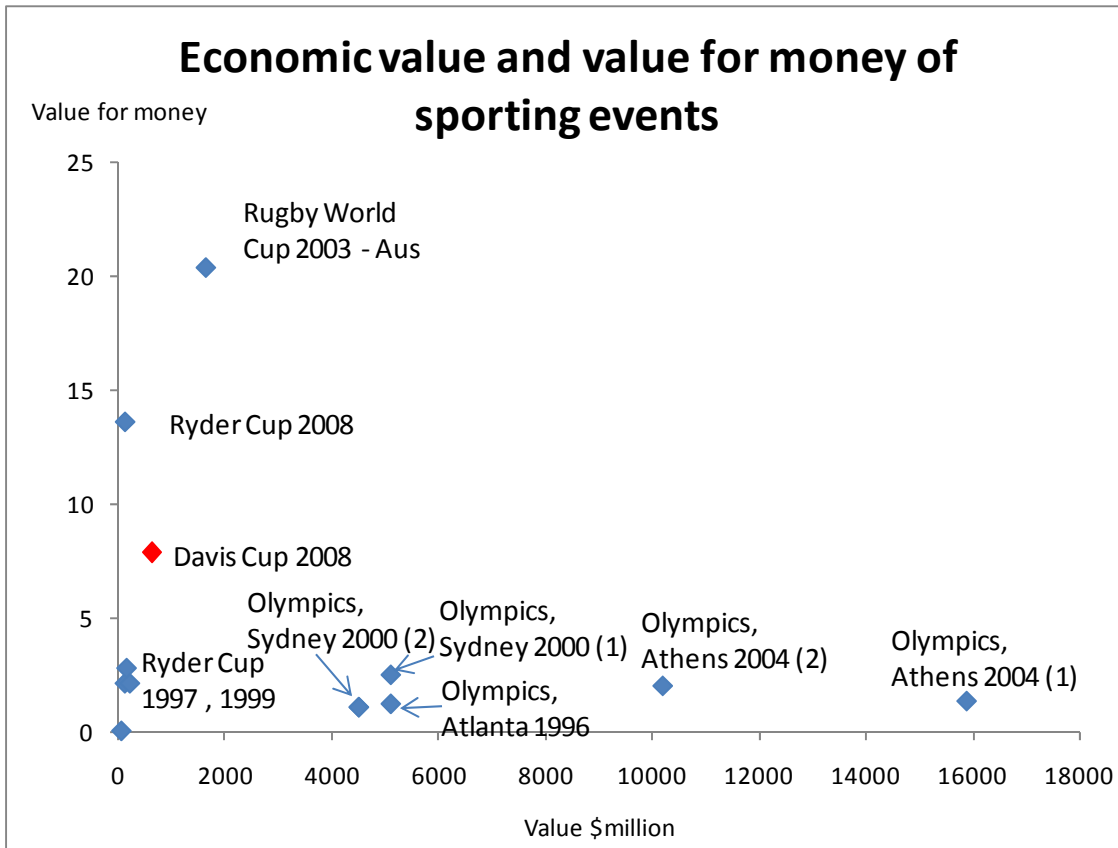
Chart 3 compares the economic value compares to our measure of value for money across a range of sporting events including the Davis Cup. The horizontal axis measures the total economic impact of each event, while the vertical axis shows the ratio of that impact to the total cost incurred in hosting the event. The costs are usually shared between the taxpayer in the host nation and the private companies involved in delivering the event.

We should point out that the measures of costs for events other than the Davis Cup have not been collected by us, and we cannot vouch for their accuracy. Moreover, in many cases, the estimate of the cost of hosting an event has not been calculated by the same institution that estimates its economic impact – so it is not clear that the two concepts are really comparable. However, the broad conclusions from Chart 3 ring true:

- The economic impact that the Davis Cup generates is towards the low end of the scale of other major global sporting events, but is still substantial
- The value for money offered by the Davis Cup is high, particularly when compared to landmark events like the Olympics



Chart 3



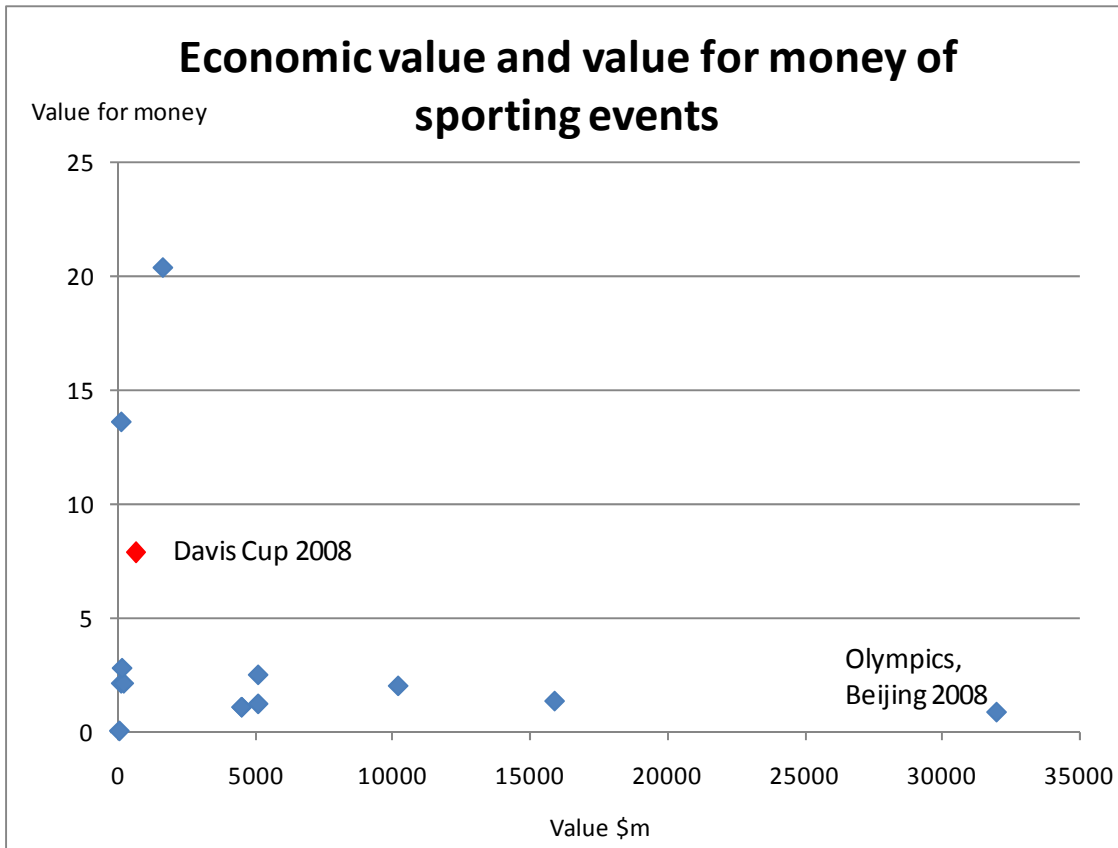
A country that is considering hosting a major sporting event ought to be concerned about the value for money that event offers, at least as much as about its overall economic impact. In general, events that attract the top sports-people and the highest quality of competition without incurring huge security and one-use infrastructure costs are likely to offer the best value for money, even if the total economic impact might be relatively small. The Davis Cup is clearly one such event. The Ryder Cup is another. In fact, the average value for money offered by the Ryder Cup across the three estimates we have found of its economic impact and the cost of hosting it is slightly less than the value for money we estimate for the Davis Cup.

The Olympics in general offer a high value but low value for money option. The Davis Cup and the Ryder Cup offer the reverse.

Chart 4 is the same as Chart 3, except that it includes the Beijing Olympics, an extreme example of the high value but low value for money events. In fact, the value for money offered by the Beijing Olympics is less than one, implying that the cost of hosting it exceeded the total economic benefits that it generated.



Chart 4



3.3 Impact of changing the format

The current format of the Davis Cup saw 50 ties during 2008 distributed around the participating countries, 22 of which were in the World Group. One alternative format would replace the current world group playoffs and world group finals that occur every year with 24 knock-out qualification matches, selecting 8 winners from 32 entrants, who will go on to participate in a three-week-long finals event held in one location once every four years. [Neil, have we got this right?]

The alternative format is essentially switching from the current low-intensity, widely dispersed competition in the world group to a higher intensity format with fewer ties overall, focused on a four-yearly finals held in one location.

The alternative format would undoubtedly generate a large economic impact, and potentially for a relatively small cost, for the country hosting the finals. But there would be two downsides to this shift:

- The proposed city to host the finals is New York. The brand of New York City, and its existing travel, tourism and sporting infrastructure are already so strong that the catalytic impact of hosting the Davis Cup finals would probably be very small.



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- The catalytic impacts on brand and infrastructure for other host countries in the current format can be substantial, and part or all of these would be lost in the alternative format.

We would expect, therefore, the overall global economic impact of the Davis Cup in the alternative format to be somewhat lower – albeit more intense for New York City – than that generated by the current format, because some of the catalytic impacts (worth around \$100 million over a four-year cycle in the current format) would be lost.



4 Conclusions

The Davis Cup generates a significant commercial value for the ITF and for participating nations, worth around \$50 million in 2008. But its economic impact is much larger, around \$160 million of GDP in the same year (\$3.2 million per tie), or \$600 million over a four-year cycle.

That economic impact is in the range of other global sporting events, perhaps towards the low end of the spectrum. But the value for money offered by the Davis Cup is high, especially for smaller host nations whose opportunities for hosting major global sporting events can otherwise be rare.

In terms of value for money, the Davis Cup in its current format is comparable to the Ryder Cup, and far ahead of events like the Olympics.

A key part of that value is in the opportunity the Davis Cup presents for small cities to boost their brand and their transport, tourism and sporting infrastructure, with potentially long-lasting effects on the local economy.

A switch to an alternative format with a three-week-long finals event once every four years would undoubtedly generate a large economic impact for the city that hosted the finals. But the branding and infrastructure opportunities for smaller cities that the current format offers could be reduced.