

**For discussion on
12 November 2010**

LegCo Panel on Home Affairs

Hong Kong's potential bid to host the 2023 Asian Games

Purpose

This paper presents Members with the report entitled "Financial and Economic Impact Assessment of the Proposed 2023 Asian Games in Hong Kong" (the report) prepared by the consultant commissioned by the Home Affairs Bureau (HAB).

Background

2. In August 2010, HAB appointed GHK (Hong Kong) in association with MI Associates, AEG Ogden and Knight Frank Petty (the consultant) to undertake a consultancy study to assess the financial and economic impacts if Hong Kong were to host the 2023 Asian Games (the Games). On 21 September 2010, HAB published a consultation paper and launched a consultation exercise to gauge the public's views on whether Hong Kong should bid to host the Games. Preliminary figures provided by the consultant on the financial and economic implications for hosting the Games were set out in the consultation paper. On the same day, we briefed the LegCo Home Affairs Panel (the Panel) on the content of the consultation paper.

3. On 8 October 2010, we provided the Panel with more detailed information regarding the financial implications for hosting the Games in Hong Kong, including the breakdown of the estimated operating and direct capital costs, projected revenue, and number of jobs created (ref. LC Paper No. CB(2)2370/09-10(01)).

The Report

4. As the consultant's report is now finalised, we are pleased to

provide the Panel with the report which contains all the consultant's findings on the financial and economic impact assessment for hosting the Games in Hong Kong. A copy of the report is at the **Annex**.

Way forward

5. After the close of the consultation period, we shall report to the Panel on the outcome of the public consultation and the proposed way forward.

Advice sought

6. Members are invited to note the findings as set out in the attached report.

Home Affairs Bureau
5 November 2010



**Home Affairs Bureau
Hong Kong Special Administrative Region Government**

Financial and Economic Impact Assessment of the Proposed 2023 Asian Games in Hong Kong

Final Report
November 2010



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1 INTRODUCTION

1.1 Background to the Study

In June 2010, the Hong Kong Special Administrative Region (HKSAR) Government issued a letter of support for the Sports Federation & Olympic Committee of Hong Kong, China (SF&OC), the bidding organisation for Hong Kong, to submit a “letter of intent” to the Olympic Council of Asia (OCA) to bid to host the 2023 Asian Games. Before deciding whether or not the Government should support a formal bid, an extensive public consultation exercise would be conducted to gauge the views of the public. The final decision of the Government would be subject to the outcome of the consultation exercise and acceptance of the likely financial implications involved by the Finance Committee (FC) of the Legislative Council (LegCo)

To assist with the process, the Home Affairs Bureau (HAB) of the HKSAR Government appointed GHK (Hong Kong) Ltd, in association with MI Associates, AEG Ogden, and Knight Frank Petty, to undertake a consultancy study (the Study) to assess the financial and economic impacts if Hong Kong were to host the Asian Games in 2023.

This final report presents the findings of the financial and economic assessment.

1.2 Scope and Programme of the Study

The Consultants estimated the operating costs required to prepare for and host the Asian Games. Capital cost estimates were provided by the Government and reviewed by the Consultants. The Government also advised on the venue for each competition.

The main revenue items associated with hosting the Asian Games were identified and the likely income that might be generated was estimated. Sensitivity tests were undertaken for low, base and high scenarios.

The Consultants assessed the economic impact of hosting the Games by identifying and estimating the quantifiable potential economic costs and benefits, such as job opportunities, increase in in-bound tourism and retailing industries, legacy opportunities associated with the new venue infrastructure, and other major qualitative economic impacts.

The Study started in mid-August 2010. Initial findings were submitted in early September. Some assumptions have been reviewed in response to comments and feedback on the initial findings.

1.3 Limitations and Issues of Concern

The assessment was undertaken based on the information provided to and accessed by the Consultants as at mid-October 2010. Actual costs and benefits are subject to changes should there be new developments or changes in hosting requirements after that date. Time to develop the financial assessment was limited to less than two months. Normally more time would be required for undertaking a full due diligence and assessment, including more comprehensive consultation with each stakeholder group.

Access to information on previous Asian Games' budgets is limited, however information from other events (e.g. Commonwealth Games, Pan-American Games, and Olympic Games) has been made reference to where appropriate.

Based on recent past experience, the event is expected to grow in size and complexity. With limited space and geographic resources, Hong Kong should not and cannot copy the Guangzhou experience. **Hong Kong's focus is therefore on providing a right sized solution to deliver facilities that will provide real legacy benefits.**

2 KEY ASSUMPTIONS

2.1 Games Duration and Events

There will be 28 Olympic sports plus 7 other non-Olympic sports to be determined by the host city. The duration of the Asian Games is assumed to be 14 days, and the Asian Para Games 7 days. About 45 competition venues plus training venues will be required. Non-competition venues, such as accommodation for athletes and officials, broadcaster and media facilities, a workforce accreditation centre, and a main operations centre will also be needed.

2.2 Number of Participants

It is assumed that there will be 11,000 athletes and officials, 1,000 VIPs, and 4,800 reporters and broadcasters supported by 600 local staff and 17,000 volunteers.

2.3 Number of Spectators and Tourists

The number of spectators is estimated based on a ratio of potential tickets available, the seating capacity of each proposed competition venue, the assumed number of sessions, percentage of seat kills, popularity, and share of concession tickets for each sport¹. The total number of tickets sold is estimated to be 740,000-1,040,000.

It is assumed that each spectator will view 3 competitions / ceremonies on average. Hence, the total number of spectators is 247,000-346,000.

Making reference to the major events held in Hong Kong (e.g. 2009 East Asian Games, Hong Kong Sevens, International Chinese New Year Parade, and International Dragonboat Festival) and overseas, and considering the uniqueness of Hong Kong² and attributes of the Asian Games, out-of-town visitors are assumed

¹ "Seat kill" refers to the seats unavailable for sale as they are either reserved for use by the OCA, VIPs, sponsors, athletes, broadcasters and media, or seats removed from the venue to permit temporary construction for camera platforms, media tribunes, or other temporary structures.

Concession / reduced rates are provided for students, children/elderly.

² The Hong Kong SAR has its own immigration system. All out-of-town visitors to Hong Kong have to pass through the immigration and can therefore be clearly defined. Most other cities are within a large country (e.g. Melbourne in Australia), and out-of-town visitors to these cities are domestic who usually are not captured by official statistics.

to account for 20% of total spectators. Hence, 49,000-69,000 visitors are expected to be attracted to Hong Kong. Among these out-of-town spectators, 90% are assumed to be short-haul, of which 50% are same-day-return visitors³.

2.4 Discount Rate

The social discount rate of 4% for the economic assessment is applied over the assessment period.

3 FINANCIAL ASSESSMENT

3.1 Introduction

The revenue and cost related to the preparation for and hosting of the 2023 Asian Games are assessed under three scenarios: Low, Base and High Cases. The estimates are presented at 2010 price level in HK\$. Some numbers in this report may not add up due to rounding.

3.2 Event-related Expenditure

Event-related expenditures are those costs directly incurred during the preparation for and hosting of the Asian Games.

3.2.1 Human Resources

The human resource cost is estimated to range from \$615 million to \$752 million.

The cost mainly covers salaries, gratuity, and on-costs (\$554-\$678 million) of the staff hired by the organising body, growing from three persons in Year 1 to a peak headcount of 615 during the year of the Games. Reference has been made to the 2009 East Asian Games (EAG) experience, but allowing for 10% increase to reflect the increased depth and complexity of the Asian Games. A provision of 15% gratuity and 20% on-costs is also assumed.

³ Same-day-return visitors are assumed to view one event per trip.

The costs also include recruitment and relocation costs (3% of total human resources costs), staff expenses (2%), wind-up costs (2%), and other related expenditure (4%).

3.2.2 Information Technology (IT)

IT costs are estimated to range from \$264 million to \$344 million.

The estimated cost is based on information provided by a major local service provider, and with reference to international major events. It comprises costs of the IT systems (18%), telecommunication devices to support the Games operations (19%), network services (14%), venue technology (providing network within the venues) (18%), timing, scoring & results (21%), Games Management Systems (4%), and information systems (6%).

3.2.3 Village and Catering

The village and catering cost is estimated to range from \$299 million to \$356 million.

The cost comprises catering for reporters, broadcasters, VIPs, staff, and volunteers (6%), athletes & official catering (31%), temporary construction costs (61%), and operations (2%).

Catering for reporters, VIPs, staff, and volunteers covers two meals per day, and three meals per day for broadcasters. Meals have to be available to all these persons for the whole assumed duration of the Games. For reporters and broadcasters, meals will also be available 10 days before the Games assuming they will arrive earlier.

It is assumed that all athletes and officials will be fed at the village. Temporary construction costs cover provision of a fully serviced medical centre, main dining hall, temporary structures, and temporary hard stand areas. Operations budget covers linen and laundry services, maintenance, utilities, and waste collection. Regardless of the development and operational mode of the Athletes' Village, these village operations costs will need to be spent. The cost of building the Athletes' Village cannot be determined at this stage because the site and mode of operation are yet to be identified and confirmed.

3.2.4 Finance and Administration

Finance and administration costs are estimated to range from \$101 million to \$120 million.

The cost comprises office rental, such as the main operating centre (33%), insurance (25%), professional fees such as audit, accounting, and consultant fees (20%), office furniture (9%), and postage, office supplies and courier costs (12%). Office rental has assumed \$18-20 per square feet per month, and 100 square feet for each person⁴ starting Year 5 when staff size grows to 13.

3.2.5 Transport

Local transportation costs are estimated to range from \$74 million to \$122 million.

The costs cover provision of services for all Games Family constituents requiring different levels of services from shared buses to dedicated cars with drivers to travel between Games venues. Cost components include 350 50-seater buses (22%), 320 24-seater vans (15%), 320 sedan cars (52%), associated parking fees for the sedans (2%), and volunteer travel supplement (10%).

Rental rates are assumed based on information from local transport companies: \$50,000-\$70,000 per month for 50-seater buses, \$40,000-\$50,000 per month for 24-seater vans, and \$300-\$580 per hour for 12 hours/day for 30 days for sedans. Volunteers' travel supplement is assumed at \$30-\$50 per day.

3.2.6 Venue Sports Events

Venue Sports Events costs are estimated to range from \$190 million to \$233 million.

The cost covers medical, doping, and test events (12%), rental costs for private venues (exhibition facilities such as Hong Kong Convention and Exhibition Centre, AsiaWorld Expo, and Hitech and the Yacht Club for table tennis, fencing, cue sports, dancesport, boxing, wushu, and sailing) (17%), and hiring and purchase of technical staff and equipment (71%).

⁴ This assumption has allowed flexibility for incremental changes in staff numbers, and includes public areas.

Costs for medical, doping, test events, and technical staff and equipment are assumed based on international experience and findings from consultations with national sports associations (NSAs). Rental costs are estimated based on market rates, and it is assumed that the venues will be rented for 24 days for setting up, training, and competition.

3.2.7 Broadcast

Broadcasting costs are estimated to range from \$513 million to \$627 million.

The cost covers the production and distribution of the international feed from all venues and all broadcast facilities at each venue, and is estimated based on discussions with local broadcasters and with reference to the Guangzhou Asian Games. It is assumed that the International Broadcast Centre (IBC) will be provided at the Athletes' Village.

3.2.8 Ceremonies

Ceremonial costs are estimated to range from \$133 million to \$163 million.

The cost includes production costs for the Opening Ceremony (68%, or approximately \$100 million), Closing Ceremony (7%), Torch Run (20%), and Medal Ceremonies (5%). It is assumed that the ceremonies will not be extravagant, but at the same time will be on par with the increasingly high standards seen at most recent major events. Reference has been made to the 2009 EAG, 2000 Sydney Olympics, 2008 Beijing Olympics, 2007 Rio Pan American Games, and 2006 Melbourne Commonwealth Games.

3.2.9 Commercial

Commercial costs are estimated to range from \$135 million to \$166 million.

The cost covers advertising (38%), public relations and agency fees (41%), promotional events (4%), market research (3%), design costs and printed materials (12%), and other expenses (2%).

3.2.10 Security

Security costs are estimated to range from \$94 million to \$115 million.

The cost covers provision of physical security equipment such as walk-through metal detectors, x-ray machines, hand held security wands (57%); and hiring of 3,000 private security guards (43%) -- the quantity of security equipment and private security guards for each venue is estimated according to the seating capacity. The cost was determined after discussion with the Hong Kong Police Force based on their experience with the 2008 Beijing Olympics and other major events at Hong Kong such as the World Trade Organisation summit. The security level is assumed to be similar to the 2008 Beijing Olympics Equestrian Events in Hong Kong.

3.2.11 Volunteers

The cost for volunteers is estimated to range from \$37 million to \$45 million.

The cost covers uniforms (51%), rental of the volunteer centre (15%), and training (34%). The quantity of uniforms to be provided is assumed to be 20,000 for the volunteers and staff at \$1,050 a set, which includes 2 polo shirts, 2 pants, 1 pair of shoes, and 1 cap. Reference is made to the 2009 EAG experience, but noting that two pants will need to be provided. Rental of the volunteer centre is assumed to be \$50/sqm/day for two months at a facility conveniently located in the urban area.

3.2.12 Bid-related Expenditure

The bid-related expenditure is estimated to range from \$280 million to \$338 million.

It includes payments to the OCA according to the OCA Constitutions: a non-refundable application fee at \$78,000, a fee at \$1.48 million to secure the award if the bid is successful, promotional campaign at \$117 million (38% in the base case), and marketing programme at \$39 million (13%).

The cost also includes VIP hospitality at \$5.2-\$6.3 million during the preparation of the Games (2%), and \$78.6-\$96.1 million during the Games (28%). VIP hospitality covers the basic requirement by the OCA: travel and accommodation expenses for six staff for 5 nights for each of the two trips a year during Games preparation;

there is also a requirement to host three guests from each NOC plus 1,380 guests comprising the OCA Family (covering National Olympic Committee members and Asian Federations), OCA staff, judges and referees, and medical and anti-doping team over the whole duration of the Games. The cost also includes bid-preparation fees at international rates ranging between \$39-\$78 million (19% in the Base Case).

This estimate does not include a refundable guarantee of US\$1 million which will need to be paid to the OCA within one month after signing the Host City Contract. The refund will be made after the settlement of all Asian Games accounts and the submission of the final report by the host city Asian Games Organising Committee.

3.2.13 Asian Para Games

It is assumed that the cost of the Asian Para Games is around 10% of the Asian Games, i.e. \$274 million to \$338 million.

3.2.14 Contingencies

Operational contingency is estimated at \$301 million to \$372 million, assuming 10% of total operational costs.

The estimate does not include the costs of deployment for civil servants, e.g. secondees from the Government, deployment of police, and other public security forces, etc.

3.2.15 Summary – Event-Related Cost

Total event-related cost is estimated to range from \$3.3 billion to \$4.1 billion. Table 1 below summarises the cost for each major category.

Table 1 Summary of Event-Related Cost

Event-related Cost (HK\$ million)	Low	Base	High
Human Resources	615	684	752
Information Technology	264	304	344
Village and Catering	299	327	356
Finance and Administration	101	110	120
Transport	74	98	122
Venue Sports Events	190	211	233
Broadcast	513	570	627
Ceremonies	133	148	163
Commercial	135	151	166
Security	94	105	115
Volunteers	37	41	45
Bid-related Expenses [#]	280	309	338
Asian Para Games	274	306	338
Contingencies	301	336	372
Sub-total	3,312	3,700	4,089

Notes: # does not include a refundable guarantee of US\$1 million which will need to be paid to the OCA within one month after signing the Host City Contract. The refund will be made after the settlement of all Asian Games accounts. Furthermore, according to the latest Host City Contract and Medical and Anti-doping Guidelines provided by the OCA, there is a requirement to host some 1,380 guests from the OCA Family (covering National Olympic Committee members and Asian Federations), OCA staff, judges and referees, as well as medical and anti-doping supporting staff, with estimated costs at HK\$80 million at current price level. Hence, there is a HK\$80 million increase in this item as compared to the version issued to LegCo on 8 October 2010 (ref. LC Paper No. CB(2)2370/09-10(01)).

3.3 Capital Expenditure

Capital expenditure, as advised by the Government, covers the following:

- Upgrade of three planned indoor sports centres at \$8.5 billion at current prices;
- Additional operations and maintenance costs of the upgraded sports centres after the Games estimated at around \$15.6 million per year; and
- Temporary overlay of existing competition venues at \$2 billion at current prices.

In addition, the Government proposed to bring forward a number of other sports venue projects within the required timeframe of hosting the Asian Games in 2023. These projects, which have long been identified for development / re-development regardless of whether Hong Kong were to host the Games, are estimated to cost about \$30.17 billion at current prices.

3.4 Income

Most of the income streams likely to be generated by the Asian Games are highly variable and unpredictable. In estimating the potential income, reference has also been made to the previous bid Hong Kong submitted for the 2006 Asian Games and the 2009 East Asian Games experience.

3.4.1 Net Ticket Sales Income

Net ticket sales income is estimated to range from \$69 million to \$92 million.

Ticketing revenue is estimated based on seat capacity and seat kills for each proposed venue, popularity and number of sessions of each sport, share of concession tickets, and ticket price. The seat kill percentage is assumed to be 20% for standard sports or 30% for premium sports. Ticket sold-out rates are assumed to be 85% for high popularity, 60% for medium popularity, 40% for low popularity, and 95% for ceremonies. The share of concession tickets is assumed based on 20% of tickets of lowest price categories at 50% of face value. Average ticket prices are assumed to be \$30-\$50 for low popularity sports, \$50-\$100 for medium popularity sports, \$75-\$175 for high popularity sports, and \$100-\$250 for ceremonies. These prices have made reference to the purchasing power of Hong Kong spectators, 2009 EAG experience, and other major events.

According to OCA requirements, 25% of the ticketing income will be transferred to OCA.

3.4.2 Net Sponsorship Income

Net sponsorship income is estimated to range from \$562 million to \$687 million.

Main sources of sponsorship include partners (65%), official suppliers (10%), and local sponsors (25%). It is estimated that the marketing agencies will charge a commission fee of 30% of the gross income. 33% of the income after agency commission will be reserved for distribution by the OCA as required.

3.4.3 Net Merchandising Income

Net merchandising income is estimated to range from \$37 million to \$46 million.

It is assumed that the net profit from the sales of souvenirs and merchandising items in connection with the Asian Games, such as toys, clothing, stationery, cups/tumblers, and badges, is 10% of the gross sales revenues, and 33% of the net profit will be reserved for distribution by the OCA as required.

3.4.4 *Other Income*

Other income is estimated to range from \$24 million to \$30 million.

This mainly covers sales of stamps and coins, and reference has been made to the 2009 EAG experience and souvenir sales for other major events in Hong Kong.

3.4.5 *TV Rights*

No income from selling the TV rights will be retained, since, as per the Host City Contract, the OCA will have exclusive TV rights.

3.4.6 *Summary – Income*

Total income is estimated to range from \$0.7 billion to \$0.9 billion, as summarised in Table 2 below.

Table 2 Summary of Net Income

Net Income (HK\$ million)	Low	Base	High
Ticket Sales	69	85	92
Sponsorship	562	624	687
Merchandising	37	42	46
TV Rights	0	0	0
Others	24	27	30
Sub-total	692	778	855

3.5 **Summary – Financial Assessment**

Table 3 and Figure 1 below summarise the estimated direct expenditures and incomes if Hong Kong were to host the 2023 Asian Games. In the Highest Return Scenario, low-end cost and high-end revenue estimates are assumed. In the Lowest Return Scenario (Worst Case), high-end cost and low-end revenue

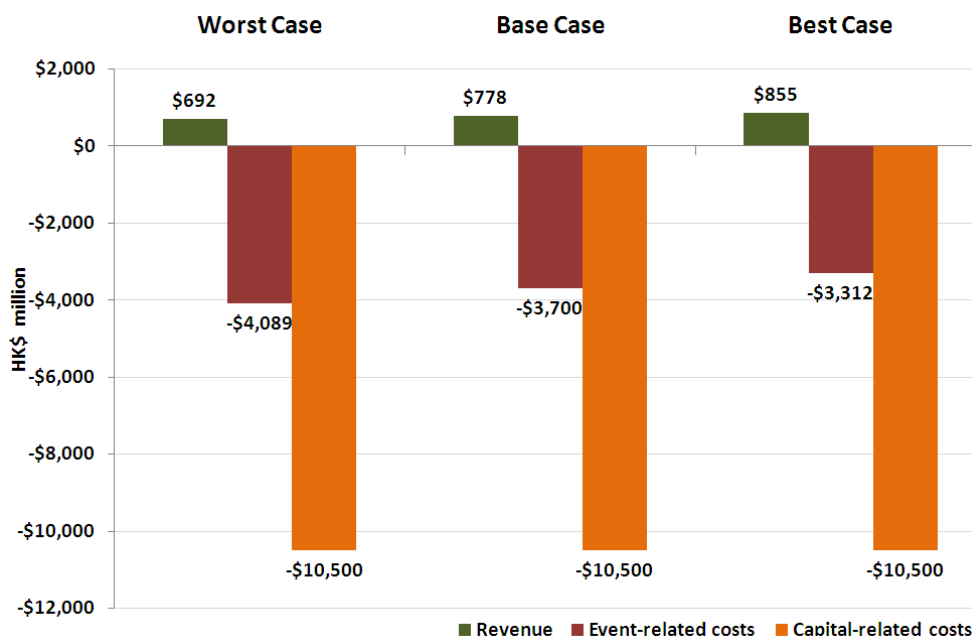
estimates are assumed. The financial **deficit** is estimated to be \$12.9 billion for the Highest Return Scenario (Best Case), and \$13.8 billion for the Lowest Return Scenario.

Table 3 Estimated Financial Surplus / Deficit – Summary

Scenario	Estimated Financial Surplus/Deficit (HK\$ billion)
Highest Return Scenario	-\$12.9
Medium Return Scenario	-\$13.3
Lowest Return Scenario	-\$13.8

Notes: there is also a recurrent cost of managing and maintaining the upgraded sports centre at around \$15.6 million per annum

Figure 1 Estimated Revenues, Event-Related Costs, and Capital-Related Costs of the 2023 Asian Games in Three Scenarios



Notes: there is also a recurrent cost of managing and maintaining the upgraded sports centre at around \$15.6 million per annum

It is not uncommon that the costs – in particular capital costs – for hosting the Asian Games, Olympics or Commonwealth Games are much higher than the revenues generated from the event (Table 4). It is critical to avoid building “white elephants” – infrastructure projects that are unnecessarily large in scale and of little use after the events. The legacy of the venues and events should also be carefully

considered so as to maximise the long-term tangible *and intangible* benefits from the Games.

Table 4 Capital Expenditure and Revenue Generated of Selected Major Sports Events

	1998 Asian Games	2002 Asian Games	2000 Olympic Games	2002 Commonwealth Games
Host City	Bangkok	Busan	Sydney	Manchester
Income Generated (HK\$ million)	513	1,600	14,400	1,700
Capital Expenditure (HK\$ million)	3,600	30,000	30,400	8,500
Remarks: Capital expenditure as multiples of operating expenditure	7x	19x	2x	5x

Notes: LegCo calculation: for comparison purpose, all foreign currencies are expressed in terms of Hong Kong dollars based on their respective exchange rates in 2003.

Source: Legislative Council Panel on Home Affairs, Background Brief Prepared by Legislative Council Secretariat for the Meeting on 8 December 2006 – Hosting of the Fifth Asian Games in 2009 (LC Paper No. CB(2)525/06-07(03))

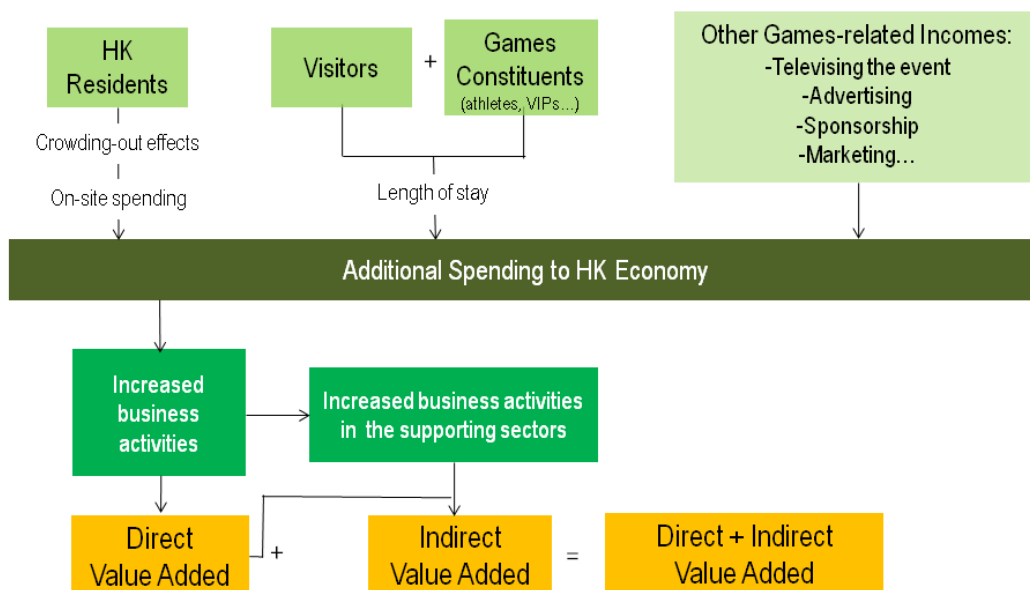
4 ECONOMIC ASSESSMENT

4.1 Methodology

Economic impacts refer to the additional benefits to the Hong Kong economy that would not have happened without the Asian Games. They are typically widespread and are difficult to define and often impossible to quantify. In the Study, economic impact measured by value added (the value of gross output less the value of intermediate consumption) and employment is quantified; other unquantifiable intangible benefits are discussed separately.

The direct impact (value added or employment generated from the economic activities in producing the Asian Games) and indirect impact (generated from the intermediate input needed to support the direct economic activities) are estimated based on the economic multipliers for the corresponding sectors. Figure 2 below summarises the approach to assessing the economic benefit for Hong Kong.

Figure 2 Asian Games Economic Benefits Assessment – Methodology



4.2 Benefits

Economic benefits are generated through visitors' spending in Hong Kong, which is in turn determined by the length of stay of visitors. In addition, revenues accruing to the Games will also create economic impacts. However, only the benefits from sponsorship income are estimated, as the potential level of other incomes to the organising body are highly variable. Ticketing revenues are a transfer of income from the spectators to the entity hosting / producing the games, are used to cover production expenditure, and are therefore not considered as additional economic impacts to the Hong Kong economy.

4.2.1 Visitor Spending

Visitor spending differs by the type of visitors (athletes, officials, VIPs, reporters and broadcasters, and local spectators), length of stay and average spending per person. Visitor spending on local cross-boundary transportation carriers is also calculated.

4.2.2 Length of Stay

Athletes and officials are assumed to stay for 12 days, VIPs for 4 days, and reporters for 10 days, broadcasters for 16 days, and overseas spectators for 7 days. These incoming tourists are assumed to be induced or additional tourists.

Per Capita Spending

Per capita spending is based on tourism statistics in 2009. Per day spending is assumed to be \$1,898 for each overnight visitor from Asia, \$1,537 for overnight tourists from outside Asia, \$200 - \$1,200 for same-day return tourists, \$1,363 for athletes and officials, and \$1,898 for VIPs, reporters and broadcasters. Local spectators are assumed to spend \$200 per day, but only 30% of such is assumed to be additional spending as a result of the Asian Games. The remaining 70% would be expensed regardless of the Asian Games, and hence cannot be considered “additional benefits” to the Hong Kong economy.

Spending per passenger on local air carriers is assumed to range from \$6,000 to \$10,000 assuming peak season rates, and \$200 per round-trip on land and sea transport. The share by Hong Kong carriers is assumed to be 45%⁵.

Direct and Indirect Value Added Impacts

Total spending from different visitor groups on consumption and cross-boundary transportation is estimated to range from \$909 million to \$1,388 million.

Direct and indirect value added multipliers are assumed to be 0.564 on tourism spending, 0.606 on private expenditure, 0.647 on air cross-boundary transportation spending, and 0.828 on land and sea cross-boundary transportation spending.

The present value of direct and indirect value added generated by visitor spending after applying economic multipliers is estimated to range from \$320 million to \$493 million, at 4% discount rate.

⁵ According to data from the Hong Kong Tourism Board, *A Statistical Review of Hong Kong Tourism*, in 2007-2009 Hong Kong carriers accounted for 50.5%-52.0% of all air passengers and 35.2%-34.5% of air passengers ex-China destinations. The percentage share of Asian Games spectators travelling by air is assumed to fall between these two ranges, as some China air passengers are assumed to be diverted to other modes when travelling between Hong Kong and Mainland China becomes easier with the development of the various road and rail projects.

4.2.3 *Sponsorship Income*

Some business activities, such as advertising and marketing promotion are expected to be generated as a result of sponsorship. For the purpose of the Study, the extent of increased business activities is assumed to be 20% of total sponsorship. The estimated sponsorship income that would remain in Hong Kong is assumed to range from \$112 million to \$137 million.

Assuming a multiplier of 0.87, direct and indirect value added impact from increased sponsorship activities is estimated to range from \$98 million to \$120 million. The present value discounted at 4% ranges from \$59 million to \$72 million.

Table 5 summarises the present value of estimated major economic benefits.

Table 5 Present Value, Major Economic Benefits

(HK\$ million)	Low Case	Base Case	High Case
Visitors Spending	320	418	493
Sponsorship (remaining in HK)	59	65	72
Sub-total, Benefits	379	484	565

4.3 **Costs**

4.3.1 *Event-related Operating Costs*

Event related operating costs, as estimated above in the financial assessment, will be around \$3,312 million to \$4,089 million at present price level.

4.3.2 *Capital-related Expenditure*

Capital expenditures, as indicated in the financial assessment Section 3.3 above, include venue upgrading of \$8.5 billion at current prices, temporary overlay of \$2 billion at current prices, and additional operations and maintenance cost of the upgraded sports centres at \$15.6 million per year. Capital expenditure on other long-term development / re-development sports venue projects, regardless of whether Hong Kong were to host the Games, are estimated at \$30.17 billion at current prices.

4.3.3 Land Value

There will be a land value associated with the site required for construction of the Athletes' Village, should this be the preferred arrangement for athletes' accommodation. This cost will be estimated, and the result will be subject to the HKSAR Government's final decision on the arrangement and model of provision for the Athletes' Village.

4.4 Job Creation

Additional jobs created as the result of the additional economic impacts from visitor spending can be estimated by the employment multipliers and must be treated with care. There will be a number of people involved in various posts and some involved in construction / upgrades / temporary overlay works. The organising body's contractor may also hire a number of people as security guards and drivers, but these positions are not necessarily counted as *new* jobs created.

4.4.1 Jobs Created from Visitors' Spending

The direct and indirect job multipliers are assumed to be 1.93 on tourism spending, 1.33 on private expenditure, 1.13 on air cross-boundary transportation spending, and 2.47 on land and sea cross-boundary transportation spending.

After applying the employment multiplier on visitors' spending, the new direct and indirect jobs created are estimated to range from approximately 1,600 to 2,300. These job opportunities however mainly arise due to the increased activities in the tourism sector over the period of the Asian Games.

4.4.2 Jobs Involved in the Capital Works

The number of direct jobs involved in upgrading the venues and temporary overlay is estimated using a multiplier, which is assumed to be 0.8 based on the ratio of value added for construction works, and the number of people involved. Value added-to-gross output ratio is assumed to be 0.615.

The total number of persons engaged in the upgrade works and temporary overlay works is therefore estimated to be around 2,260 and 1,560 on average per year.

4.4.3 Other Persons Involved

There will be a number of jobs involved in the Asian Games. It is estimated that 615 persons will be hired by the organising body at the peak of its operation. Approximately another 3,000 security guards, 990 drivers, 800 IT & Telecommunications staff, and 700 catering staff would be needed.

5 OTHER NON-QUANTIFIABLE IMPACTS

There are potential benefits not captured by the financial and economic models but that are relevant to a bid campaign. Overseas examples of legacy planning and benefits are also considered and made reference to where suitable. Cases reviewed include the 2000 Sydney Olympics, the 2006 Melbourne Commonwealth Games, 2007 Rio Pan American Games, and London Olympics 2012, and Australia 2012 FIFA World Cup. The benefits could range from an enhanced profile and image for Hong Kong to greater social cohesion and are considered below.

5.1 Strengthening the branding of Hong Kong as “Asia’s World City”

At the macro level, successful bidding and hosting of the 2023 Asian Games would increase Hong Kong’s international exposure to Asia and even to the world. It will also elevate Hong Kong’s status, as has been the case with metropolis like Beijing, Vancouver and Tokyo that have hosted major sports events.

Additional tourists could be attracted to Hong Kong after they are reminded of this destination through viewing of the Asian Games. In addition, with new venues completed and existing venues upgraded and modified to international competition standards, Hong Kong would be better positioned to attract and host other major events to help realise its vision of “Asia’s World City” and a potential “Event Capital”.

5.2 Enhancing social cohesion and a positive outlook

Hong Kong athletes will have home base advantages if the Asian Games are hosted in town and thus higher chances of success, with positive knock-on effects for supporters and the community.

As major events require inputs from various individuals and organisations; mobilising the society to host an international event through volunteering can strengthen the sense of belonging among Hong Kong residents. The experience of the 2009 East Asian Games suggested that sport is an ideal thread to pull communities together. Hosting the Asian Games will serve the same purpose.⁶

5.3 Enhancing community sports participation, health and fitness – Improving Hong Kong’s “Quality of Life”

New venues and facilities will be built, and some existing ones will be upgraded, in order to host the Asian Games. The new and / or improved facilities and venues will make it possible for Hong Kong to host more major sports competitions and, more importantly, will provide enhanced access to Hong Kong citizens and visitors wishing to participate in sport, and thus improving health and fitness. The pre-Games period is generally accompanied by promotions and educational campaigns for the Asian Games and its sports events. These activities are conducive to raising the community’s awareness of the benefits of sports participation. Overseas studies have suggested that increased community participation in sports can deliver the following:

- Minimise the risk of illnesses and strengthen the physiques of participants;
- Achieve psychological / mental health and sense of achievements;
- Improve productivity at work and at school; and
- Reduce the number of hospital visits and thus lessen the burden on medical expenditure.

⁶ The impacts of hosting major events (e.g. World Cups, Olympics, etc.) on social cohesion and well-being have attracted increasing attention over recent years. This has been part of a wider discussion about measures of well-being and “development”, and the limits of using GDP per capita as the sole measure of progress.

In Europe, where detailed longitudinal data measuring citizens’ well-being and happiness covering 40 years are available, analysis for several major football tournaments (European and World Cups) shows a marked rise in self-reported happiness just after the tournaments. More generally, these types of impacts appear to be relatively more noticeable in developed societies: i.e. where GDP per capita exceeds approximately HK\$135,000. The inference being that in low income societies, where basic needs are not met, spending on basic infrastructure and services has a relatively greater impact on citizens’ well-being.

5.4 Development of sports facilities and the sports market in Hong Kong

The preparation for a major games usually spur investment in elite athlete training facilities, coaching programmes, and the establishment of a sport institute or academy, etc.

The interests in sports and sportsmanship created by hosting the Asian Games could induce demand for sport-related products such as professional equipment and trainers, sports science and medicine and hence opportunities in this job market.

5.5 Improved event management skills and an enhanced capability to host major events

The Government (and Hong Kong companies) strengthened their event management experience from hosting the 2009 East Asian Games. Likewise, the skills and experience developed by staging the Asian Games would help in attracting and staging other major events of similar scale in the future.

6 CONCLUSION

The 2023 Asian Games will likely generate revenues for Hong Kong ranging from \$692 million to \$855 million, while the event-related operations expenditure is estimated to range between \$3,312 million to \$4,089 million. Capital expenditure on upgrading planned new facilities and building temporary overlay is estimated to be \$10.5 billion at current prices, and an additional \$15.6 million per year to operate and maintain the upgrade works. Capital expenditure on other long-term development / re-development sports venue projects, regardless of whether Hong Kong were to host the Games, are estimated at \$30.17 billion at current prices.

The economic benefit from additional tourist spending and increased related business activities is estimated to range between \$379 million and \$565 million at present value.

The number of direct and indirect jobs created through visitor spending is estimated to range from 1,600 to 2,300. Approximately 2,260 and 1,560 jobs are estimated to be involved in upgrading of the planned new venues and temporary overlaying works for existing facilities. There will also be some 3,000 security guards, 990 drivers, 800 IT & Telecommunication staff and 700 persons in catering industry involved, plus 615 people will be hired for the Asian Games organising body at its peak.

The experience from other cities suggests a number of non-quantifiable benefits will also be generated, especially if Hong Kong hosts a successful Games. These benefits include an enhanced profile and image for Hong Kong, increased social cohesion, well-being and greater sports' participation and awareness.