

FEATURE ARTICLE

The Contribution of Tourism to the Singapore Economy

The Contribution of Tourism to the Singapore Economy¹

EXECUTIVE SUMMARY

- This paper measures the contribution of tourism to the Singapore economy by estimating the tourism value-added (TVA) between 2007 and 2010. TVA complements existing indicators, such as visitor arrivals, tourism receipts and hotel statistics, to reflect tourism's performance.
- We find that tourism's economic contribution fell during the 2009 financial crisis, but more than recovered in 2010 along with the global economic recovery and the opening of new tourism offerings in Singapore. By the third quarter of 2010, tourism had generated \$7.9 billion in nominal value-added, surpassing the TVA for the full year of 2009.
- Tourism also generates significant employment opportunities. Between 2007 and 2010, tourist spending supported around 101,200 jobs on average each year.

BACKGROUND

Singapore's tourism landscape has undergone a major transformation in recent years. International events such as the Formula One Singtel Singapore Grand Prix (since 2008), as well as the opening of new tourism offerings such as the Integrated Resorts (IRs) have cemented Singapore's position as a top tourist destination.² To better understand the importance of tourism, this paper estimates tourism's contribution to the Singapore economy between 2007 and 2010.

TOURISM PERFORMANCE INDICATORS

As a small island state, Singapore depends more on international tourists than domestic tourism.³ The number of tourists visiting Singapore and the amount they spend on goods and services here are thus sensitive to external events and factors.

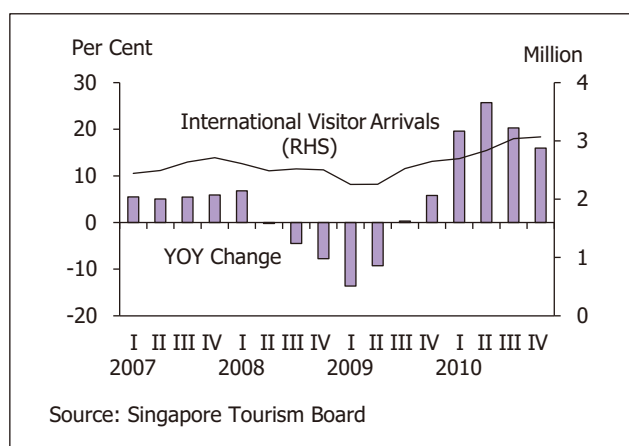
The views expressed in this paper are solely those of the authors and do not necessarily reflect those of the Ministry of Trade and Industry or the Government of Singapore.

¹ Data was kindly made available by the Singapore Tourism Board for the purpose of this article.

² Singapore was listed as destination 23 on the New York Times' list of 41 top tourist destinations in 2011. Source: The New York Times (7 January 2011), "The 41 Places to Go in 2011".

³ According to the United Nations World Tourism Organisation (UNWTO), tourists are defined to be people who are "travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited". In line with this definition, we define tourists as foreigners who visit Singapore for a maximum period of one year. Foreign manpower and long-term foreign students whose duration of stay in Singapore lasts more than a year are excluded. Source: United Nations (1994), "Recommendations on Tourism Statistics", Statistical Papers, Series M(85): 7, New York.

Exhibit 1: International Visitor Arrivals Rebounded Strongly in 2010



Prior to the onset of the global financial crisis, international visitor arrivals to Singapore averaged 10 million per year in 2007 and 2008, while tourism receipts (TR) averaged \$15 billion.⁴ With the financial crisis affecting economies worldwide, visitor arrivals to Singapore fell by 4.3 per cent from 2008 levels to 9.7 million in 2009 (Exhibit 1). Similarly, TR fell by 18 per cent to \$13 billion from \$15 billion in 2008 (Exhibit 2). While all tourism-related industries were affected, the effects of the crisis were particularly felt in the hotels industry. During the crisis, revenue per available room (RevPAR) fell 37 per cent year-on-year from the peak of \$206 in the second quarter of 2008 to \$130 in the second quarter of 2009.⁵ The average room rate (ARR) contracted by 27 per cent while the average occupancy rate (AOR) fell by 13 per cent (Exhibit 3).

In 2010, riding on the wave of the global recovery, Singapore’s visitor arrivals rebounded strongly, along with the rest of Asia’s. According to the Advance Release of the UNWTO World Tourism Barometer, Asia was the strongest growing region in 2010 with international tourist arrivals growing by 13 per cent to a new record of 204 million.⁶ Singapore did better, with visitor arrivals rising by 20 per cent to reach a record high of 11.6 million in 2010. Likewise, TR improved by 49 per cent to hit a high of \$18.8 billion for 2010. The RevPAR of hotels also rose, but remained below its peak in the second quarter of 2008 as the ARR had not recovered to pre-crisis highs.

Exhibit 2: Tourism Receipts in 2010 Surpassed 2009’s Figures

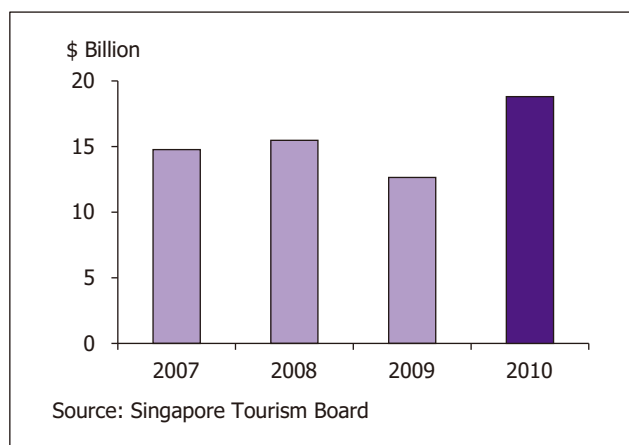
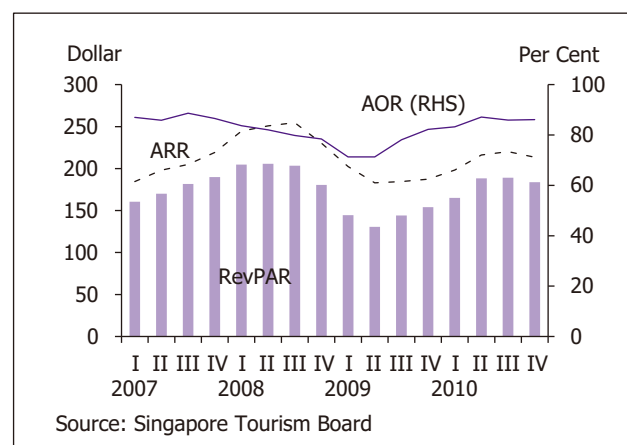


Exhibit 3: Hotel Occupancy Rate Recovered but the Average Room Rate was still below Pre-Crisis Levels



⁴ In accordance with the UNWTO’s definition of tourists, tourism receipts do not include the expenditure of long-term students or foreign manpower.

⁵ RevPAR is the indicator most commonly used to measure the financial performance of the hotels industry. RevPAR = AOR x ARR.

⁶ Source: “International Tourism 2010: Multi-speed recovery”, 17 January 2011, Madrid, Spain.

INTRODUCTION TO TOURISM VALUE-ADDED

While visitor arrivals, TR and hotel statistics are useful indicators that reflect tourism's performance, they do not in themselves measure tourism's contribution to Singapore's Gross Domestic Product (GDP). To assess the economic contribution of tourism, this paper estimates the tourism value-added (TVA) generated between 2007 and 2010 from tourist spending. TVA includes (i) the direct value-added (VA) generated when tourists consume goods and services from tourism-related industries⁷, and (ii) the indirect VA generated in industries that supply inputs to the tourism-related industries.⁸ It therefore does not refer to all the VA that is generated in tourism-related industries, which would include VA generated by local spending in these industries.

TVA estimates are derived by applying industry-specific VA multipliers from the 2005 Input-Output (IO) tables to each category of tourist spending. These multipliers capture both the direct and indirect effects of tourist spending. Direct effects refer to the VA initially generated by increased spending in a particular industry (e.g., the effect of Food and Beverage (F&B) expenditure by tourists on the VA of the F&B industry). Indirect effects refer to the VA generated when the original industry demands more inputs from industries up its supply chain, and these industries in turn purchase more inputs from their suppliers to meet the increased demand. For example, the F&B industry may buy more food ingredients to meet higher demand from tourists, and this will result in food ingredients producers purchasing more inputs from their suppliers to meet the increase in demand from the F&B industry.

As the tourism-related industries have different operating structures, a dollar of tourist spending generates total VA of varying magnitudes in different industries. For example, expenditure on shopping generates lower VA than expenditure on services such as healthcare as the goods sold in Singapore tend to have high import content. Based on our estimates, the spillover effect of tourist spending in Singapore is higher than the economy's average, where 24 per cent of every dollar of total VA generated can be traced to indirect effects.

TOURISM'S ECONOMIC CONTRIBUTION⁹

Using data up to the third quarter of 2010, tourism is estimated to account for 3.5 per cent of Singapore's economy...

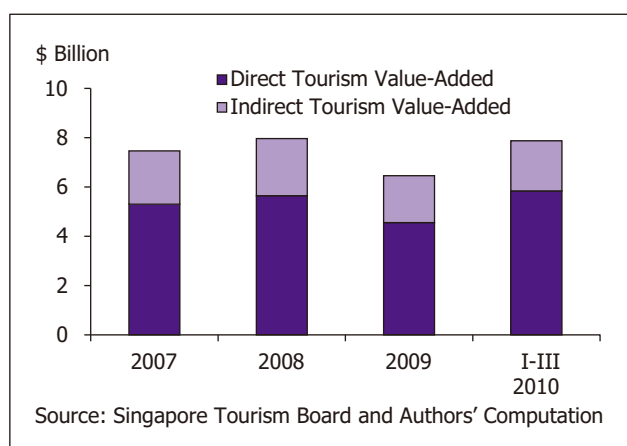
Using the TVA approach described above, we estimated tourism's contribution to the economy between 2007 and 2010. Mirroring the trends in visitor arrivals and TR, TVA rose in 2007 and 2008 to reach a high of \$8.0 billion (or 3.0 per cent of nominal GDP) in 2008, before falling 19 per cent to \$6.5 billion (or 2.4 per cent of nominal GDP) in 2009 due to the global financial crisis ([Exhibit 4](#)).

Aided by the global economic recovery and new tourism offerings in Singapore, TVA recovered strongly to hit \$7.9 billion, which represented 3.5 per cent of nominal GDP, in the first three quarters of 2010. This was 63 per cent higher than the TVA recorded over the same period in 2009. Tourism's strong rebound contributed to Singapore's recovery from the crisis, with the increase in TVA translating to 1.6 percentage-points of the 16 per cent year-on-year nominal GDP growth in the first three quarters of 2010.

⁷ Examples of tourism-related industries include hotels and restaurants, retail trade, recreation and entertainment, air transport, land transport, business services, education and healthcare.

⁸ The definitions and relationships between the various tourism aggregates are explained in the following source: UNWTO (2008), "Tourism Contribution to GDP".

⁹ Analysis for 2010 stops at the third quarter as detailed TR data for the fourth quarter is not yet available.

Exhibit 4: Tourism Value-Added Recovered in 2010

In terms of the drivers of TVA, the key categories of tourist expenditure that contributed to TVA between 2007 and 2009 were accommodation, F&B and shopping. On average, accommodation contributed 31 per cent to TVA, followed by shopping and F&B (both 16 per cent) in those years. However, the opening of the IRs in 2010 diversified entertainment options and introduced new growth engines (including a theme park and gaming) to Singapore's tourism landscape. These new offerings have reduced Singapore's reliance on tourist spending in the traditional segments.

... and to have provided around 111,500 jobs.

Using a concept similar to that of TVA, we can estimate the number of people who were employed to produce the goods and services consumed by tourists, both in tourism-related industries as well as in the industries that produce inputs for tourism-related industries.¹⁰ In other words, this refers to employment driven by tourist spending.

On average, tourist spending supported 99,800 jobs annually in 2007 and 2008, or approximately 3.5 per cent of total employment in Singapore. During the downturn in 2009, the number of jobs supported by tourist spending fell by 10 per cent year-on-year to 93,000. Compared to the fall in TVA of 19 per cent, this drop in employment was smaller. Existing companies in the tourism-related industries could have refrained from retrenching their employees in anticipation of the eventual upturn, while the hiring of the IRs in preparation for their opening would have also supported employment levels.

With the rebound in visitor arrivals in 2010, the number of jobs supported by their spending is estimated to have grown to around 110,600 to 112,300, surpassing pre-crisis levels.¹¹ The healthy tourism performance in 2010, partly boosted by the opening of the IRs, has thus translated into job creation.

A broader concept of tourism employment considers employment in tourism-related industries that is supported by both local and tourist spending. This is on the basis that these industries do not only exist to serve tourists. Based on this broader concept, tourism employment is likely to be higher than the estimates in this paper.¹²

Investment in tourism infrastructure and capabilities has contributed to tourism's strong performance...

While overall improvements in the global economy helped to boost TVA in 2010, the investments that Singapore has made to improve its tourism infrastructure and offerings, as well as tourism capabilities over the years have also paid dividends. These investments have helped Singapore's tourism-related industries to ride out the crisis and emerge from it much stronger than before. Some of these investments are described below.

¹⁰ The employment is generally derived using industry-specific employment-VA ratios.

¹¹ This figure is a preliminary estimate as the full-year detailed TR data is not yet available.

¹² For example, under the Tourism 2015 plan announced in 2005, employment was targeted to increase from 150,000 jobs in 2004 to 250,000 jobs in 2015. These figures refer to jobs in tourism-related industries, including those supported by local spending.

First, new tourism infrastructure (e.g., the Singapore Flyer in 2008 and IRs in 2010) has been introduced to enhance Singapore's attractiveness to tourists, particularly the repeat and high-yield tourists (i.e., tourists who have higher spending). In addition to investments that diversify Singapore's tourism offerings, there have also been efforts to deepen capabilities and expand capacities in existing tourism offerings. For instance, Singapore's second cruise terminal at Marina South, which is expected to be completed in end-2011, will enhance our ability to compete more effectively in the global cruise industry.

Second, efforts have been made to build up tourism software, such as tourism manpower capabilities and the capabilities of tourism-related industries, to enhance the tourist experience in Singapore. For example, in the case of manpower capabilities, the IRs have been tapped on to help with tourism education. So far, they have offered scholarships and internship opportunities to polytechnic students, and helped the polytechnics to refine their curriculum. In the area of business capabilities, there are on-going efforts to boost the standards of exhibition industry players in Singapore. SPRING Singapore, supported by the Singapore Tourism Board (STB) and the Singapore Association of Convention and Exhibition Organisers (SACEOS), has launched the ISO 25639 in 2008 as the first ISO standard for the global exhibition industry.

Third, to fully capitalise on these supply-side improvements, initiatives to increase Singapore's visibility on the world map and inject greater dynamism into the tourism landscape have been undertaken. Since the launch of the Tourism 2015 Plan in 2005, STB has attracted and introduced a series of iconic events that highlight Singapore as a premier destination for foreign visitors. These include the Asia Fashion Exchange, the World Gourmet Summit and the Formula One Singtel Singapore Grand Prix.

Through these efforts, Singapore's tourism performance has been able to grow from strength to strength.

Box Item: The Integrated Resorts have given Singapore's tourism a boost

What did we expect?

In 2006, the Singapore Government announced that each of the Integrated Resorts (IRs) was expected to add \$2.7 billion (or approximately 0.8 per cent) to Singapore's annual Gross Domestic Product (GDP) and would combine to generate between 50,000 and 60,000 jobs throughout the economy by 2015.¹³

What are our preliminary estimates?

Since Resorts World Sentosa (RWS) and Marina Bay Sands (MBS) opened in February and April 2010 respectively, the spending of incremental visitors – i.e., tourists who would not have come to Singapore if not for the IRs – in the IRs and the rest of the economy generated an estimated \$3.7 billion in nominal VA (or 1.7 per cent of nominal GDP) in the first three quarters of 2010. This spending is also estimated to account for 30,300 incremental economy-wide jobs during this period.¹⁴

Based on anecdotal evidence, these significant incremental benefits could be due to the marketing efforts of the IRs and the hype that the IRs have generated in the overseas source markets. With the IRs in their first year of operations, there could also be some novelty effect. Nonetheless, as more attractions open over the next few years, the IRs should be able to sustain tourists' interest. Overall, the IRs are on track to realising the previously expected economic benefits as their operations reach steady state by 2015.

¹³ The economic contributions of the IRs refer to the VA and jobs generated by the spending of incremental visitors. The combined economic benefits of the IRs would be smaller than the direct summation of the individual contributions of the IRs because of the possibility of cannibalisation between the IRs (i.e., tourist spending could be split between the two IRs).

¹⁴ The expenditure of locals and base visitors (i.e., tourists who would have come to Singapore regardless of the IRs) at the IRs is excluded because such expenditure may come at the expense of other forms of expenditure, and does not generate net additional benefits to the economy. For example, a local who visited the casino could decide to spend the \$100 entry levy or his gaming budget on shopping or F&B instead.

OUTLOOK FOR TOURISM

A positive external environment in 2011 and beyond would support the growth of tourism globally. UNWTO has forecast that international tourist arrivals would grow by 4.1 per cent annually from 2010 to 2020.¹⁵ East Asia and the Pacific are expected to perform better with average annual growth of 6.5 per cent.

Amidst this supportive external environment, tourism's contribution to the Singapore economy is poised to grow. Taking into consideration Singapore's resource constraints, STB is shifting its emphasis away from increasing visitor arrivals towards growing TR. Efforts in this regard include seeking higher tourist spending in activities that create high VA, such as education and healthcare, as well as expanding tourism offerings that appeal to higher-yield visitors.¹⁶ For example, the IRs have contributed to our ability to grow business tourism, which tends to have higher yielding customer segments, by adding on to the diversity of convention spaces, and attracting more exhibition and conference opportunities.

Overall, STB targets to attain \$30 billion in TR in 2015, which translates into an average annual growth of 10 per cent from 2010 onwards. TR growth would be driven by the continual ramp-up of operations at the IRs and further tourism infrastructure investments to attract visitors, especially the higher yielding ones. These investments include the International Cruise Terminal (to be ready by late-2011), Gardens by the Bay (Bay South to open in 2012), the River Safari (to open in 2012), Mandai Fourth Gate and the Jurong Lake District. Given the strong tourism developments in the region, there may also be scope to explore further twinning efforts with our neighbouring countries.

CONCLUSION

Tourism is an important component of Singapore's economy, contributing towards both GDP and job creation. STB's continued efforts to diversify our source markets and attract higher yielding visitor segments would further strengthen tourism's contribution to the economy. Beyond VA and job creation, tourism also brings about intangible benefits. Specifically, by raising Singapore's visibility and profile through iconic events and tourism infrastructure, Singapore could become a stronger magnet for global talent. With more global talent re-locating to Singapore, our economy would become even more dynamic and be able to continue its move up the value chain.

Contributed by:

Tan Hui Lin, Economist
Kuan Ming Leong, Senior Economist
Yong Yik Wei, Lead Economist
Economics Division
Ministry of Trade & Industry

With inputs from:

Mark Tung, Assistant Director (Research & Incentives)
Lee Lie Yen, Deputy Director (Strategy & Planning)
Singapore Tourism Board

¹⁵ Source: UNWTO, "Tourism 2020 Vision". Accessed 25 January 2011.

¹⁶ To date, STB has developed and is strengthening the Singapore Education and Singapore Medicine brands, such as by improving safety standards and reliability of the operators, developing specific niches in education and healthcare and increasing the international visibility of these brands.