

The Deficiency of Macau's Over-reliance Economy on Gaming Industry

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1. Introduction

Along with the liberalization process in Hong Kong society, attitude towards gambling legalization or building casino seems to have changed significantly over the years. The many negative impacts of gambling in particular continue to increase during the past decade in Hong Kong, especially after the authorization of soccer betting in 2003, which has created anew many problems along with serious negative consequences.

In recent years, budget deficit has become a major concern for Chinese central as well as for Hong Kong government. These two independent issues have been tied together by those gambling proponents who argue that building casino is the stone that could kill two birds, on the one way that is to reduce citizens' money draining out to Macau's economy and on the other way that brings government revenue from the bets of both local citizens and tourists. As a result, "building casino reduces capital outflow and illegal gambling" and "building casino brings revenues and prosperity" are probably the two arguments that have been most often brought up by gambling proponents.

In past few years, we have witnessed several waves of heated debates among legislators, government officials and interest groups. Government has been faced the pressure from pro-business party leaders to do research on this issue. And the success of Macau's economy also proves that building casinos would have great contributions to the society as a whole. Negative consequences seem to be rarely an issue in Macau's society, and therefore, hardly ever been tackled.

In facts, the case of Macau is obviously in conflict with those of the recent studies done by foreign (the US in particular) scholars. Enough evidences have revealed that gambling legalization or building casino could neither reduce illegal gambling and capital outflow nor could it revitalize local economy, which definitely need to be addressed more thoroughly.

The question left to be answered is that Macau enjoys its prosperity, especially after the issuance of 3 gambling licenses and implementation of "individual traveling policy" by Chinese central government, and seems that building casinos may be effective in revitalizing local economy, but what makes the difference in Macau?

The main purpose of this study is to carry out a critical analysis on issues associated with the prosperity of Macau's gaming industry, as a way to project the potential crisis of Macau's economy. Hoping that this would provide insights leading to a better quality of tourism industry in Macau, and eventually, persuade Hong Kong party leaders as well as the public to understand that building casino may not be an undefeatable formula to bring economic success.

2. Reasons for Macau's Prosperity

With the excitement of gaming and motor sports, Macau has long been known as "Morte Carlo of Orient". After the handover of Macau, Chief Executive, Mr. Edmund Ho, was determined to end the monopoly of gaming industry in Macau, as a result, the government issued three new casino licenses in February 2002, the companies succeeded in bidding the licenses

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are Sociedade de Jogos de Macau (the company running monopoly for over 40 years in Macau before), Wynn Resorts and Galaxy Holdings (both have strong connections with Las Vegas Casinos).

Under the new contracts, effective April 2002 (for SJM) and June 2002 (for the others), the gaming operators were required to pay a special gaming tax equivalent to 35.0% of their gross revenue. In addition, the operators also agreed to pay 1.6% of their gross revenue to the Macao Foundation for social, cultural, and economic development, 1.4% (for SJM) and 2.4% (for the others) of the gross revenue for the development of urban construction, tourism and the Social Security Fund. Moreover, the new licensees are obligated to execute their projected investment of MOP17.5 billion (Table 1). If testing projects are proven to be success, there would be a dramatic increase in investments flowing into the territory in the coming years. Some of the investment has already been realized as new casinos have been operating and the renovation of existing ones has been finished.¹

Besides the huge sum investment projects by the three licensing companies contribute to Macau's miracle, the "Individual Traveling Policy" introduced by the Chinese central government also takes a crucial role. After the massive demonstration in Hong Kong in 1st July 2003, the central government announced the policy, which allowed mainland citizens traveling to Hong Kong and Macau without any restriction. As a result, the newly constructed gaming facilities provide plenty capacities for massive number of mainland visitors, which contribute to Macau's prosperity.

The visitor profile has undergone significant change recently. Since the implementation of "Individual Traveling Policy", the number of mainland visitors increased by nearly 4 millions in 2004, and mainland visitors replace Hong Kong visitors becoming the major source of income to Macau's economy, as Mainland visitors occupies 57% in total, while the share of Hong Kong visitors drops to 30%. (Table 2) It is expected that the continued relaxation by central government would promote further rapid increase of Mainland Chinese visitors in the coming years.

The contribution of mainland visitors is not restricted to numbers only, but rather, their purchasing power is far more

Table 1 Investment Projects of Gaming Concessionaires

Sociedade de Jogos de Macau	
①	Term of Concession: 18 years (1 April 2002 to 31 March 2020);
②	Date of Operation: 1 April 2002;
③	Minimum Investment: MOP 4.7 billion;
④	Investment Plans: Renovations of its eleven casinos, building an extension to "Hotel Lisboa & Casino", "Ponte 16" and "Fishermen Wharf";
⑤	Employment: Approximately 15,000 persons;
⑥	Taxes and Contributions for Each Year: Special gaming tax (35% of the Gross Revenue); Contribution to the "Macao Foundation" (1.6% of the Gross Revenue); Contribution to the development of urban construction, tourism and social security fund (1.4% of the Gross Revenue); The responsibility for dredging watercourse.
Wynn Resorts	
①	Term of Concession: 20 years (27 June 2002 to 26 June 2022);
②	Date of Operation: To be confirmed;
③	Minimum Investment: MOP4.0 billion (In 7 years);
④	Investment Plans: The first casino, which includes resort, hotel and entertainment theaters; will be operated before the end of 2006;
⑤	Projected to Employ: To be confirmed but at least 2000 to 3000 persons;
⑥	Taxes and Contributions for Each Year: Special gaming tax (35% of the Gross Revenue); Contribution to the "Macao Foundation" (1.6% of the Gross Revenue); Contribution to the development of urban construction, tourism and social security fund (2.4% of the Gross Revenue).
Galaxy Holdings	
①	Term of Concession: 20 years (27 June 2002 to 26 June 2022);
②	Date of Operation: 18 May 2004 (The Sands Macao) and 4 July 2004 (Galaxy Casino-hotel);
③	Minimum Investment: MOP8.8 billion (In 7 years);
④	Investment Plans: Development of the Venetian Macao, the Sands Macao, and Galaxy Casino-hotel;
⑤	Projected to Employ: 8,000 to 10,000 persons;
⑥	Taxes and Contributions for Each Year: Special gaming tax (35% of the Gross Revenue) Contribution to the "Macao Foundation" (1.6% of the Gross Revenue) Contribution to the development of urban construction, tourism and social security fund (2.4% of the Gross Revenue)

Source: *Macao Gaming Yearbook 2002*, extracted from Pao, Jay W. (2004). "Recent Developments and Prospects of Macau's Tourism Industry". *AMCM Quarterly Bulletin*. Iss. 13. Page 88.

significant to Macau's economy. The average non-gambling consumption of tourists is \$1590, while the average non-gambling consumption of mainland visitors is \$3290, which is more than triple of Hong Kong visitors. (Table 3) Since the number of mainland visitors is nearly the double of Hong Kong visitors, we can imagine that how significant mainland visitors contribute to the local economy.

Table 2 Distribution of Tourists by Places of Residence

(2001-2004)

1000 people	2001	2002	2003	2004
Mainland China	3005.7 (29%)	4240.4 (37%)	5742.0 (48%)	9529.7 (57%)
Hong Kong	5196.1 (51%)	5101.4 (44%)	4623.2 (39%)	5051.1 (30%)
Taiwan	1451.8 (14%)	1532.9 (13%)	1022.8 (9%)	1286.9 (8%)
Other	625.4 (6%)	656.1 (6%)	499.8 (4%)	804.8 (5%)

Source: Macao Economic Services

Table 3 Average Tourists' Non-gambling Consumption by Places of Residences

MOP	2003	2004
Mainland	2948	3290
Hong Kong	928	952
Taiwan	991	810
Average	1616	1590

Source: Macau Statistics and Census Bureau

Tourism plays a significant role in Macau's economy. The Macau Statistics and Census Bureau concludes that the GDP growth rate in 2004 is 30.1%², which is much higher than 15.6% in 2003 and 10% in 2002. Table 4 shows the contribution of tourist receipts to the GDP from the year 1995 to 2004. During the decade, the percentage of tourists receipts contribution (including gambling expenditure) to GDP has been increased from 47% to 77%, especially after the opening the Sands Casino in May 2004, more and more money are pumping in Macau's casinos. This shows how both issuance of three gambling licenses and "Individual Traveling Policy" contributes to the prosperity of Macau's economy.

3. Bathtub Model of Casino Economy

To understand the economic effects of casinos towards the local economy, we need a model. Now I would like to borrow the model created by William N. Thompson to analyze the economic impacts of casinos, the model is simply the operation of a bathtub.³

He states that "Water comes into a bathtub, and water runs out of a bathtub. If the water comes in at a faster rate than it leaves the tub, the water level rises; if the water comes in at a slower rate than it leaves, the water level decreases. A local economy attracts money. A local economy discards money. Money comes and money goes. If as a result of the presence of

Table 4 Contribution of Tourist Receipts to Real GDP Growth

(1995-2004)

1000 MOP	Tourists Receipts	GDP	% contribution to GDP
1995	25,867,266	55,526,251	47
1996	24,681,515	55,293,517	45
1997	23,011,106	55,139,122	42
1998	21,190,249	52,618,754	40
1999	20,785,245	51,021,436	41
2000	25,641,319	53,380,560	48
2001	29,960,478	54,560,222	55
2002	35,526,007	60,031,687	59
2003	42,426,937	69,409,642	61
2004	68,623,561	89,260,800	77

Source: *Tourism Indicators and Gross Domestic Product Yearbook*, Statistics and Census Service (DSEC), various Issues.

casinos more money comes into an economy than leaves the economy, the casinos create a positive monetary effect".⁴ This implies that if the presence of casinos excess money comes into an economy than leaves the economy, the casino economy or even the local economy would be saturated eventually.

For this reason, we understand that money comes in because of the bet people's loss from gambling, visitors may also contribute to the local economy because of their consumption on food, accommodation, transportation and other entertainments. In short run, casinos may help boost up the local economy; however, the construction money may balance out because the money must be taken out of casino revenues.⁵ So we can perceive that if the casinos are operated by foreign companies, the revenues gained may not be fully re-invested in the local economy. Macau is surely in this case.

Money leaves the economy for several reasons. First, the money brought to the casinos by local residents can not be counted, unless it proves those money would be spent on other communities or kept it under the pillows, otherwise those money can not be counted as a contribution to the local economy.⁶ The Vice President of Players International, Stephen P. Perskie, states that "The problem with this industry, and I'm now part of it, is that it doesn't create anything. It offers entertainment and leisure, which is obviously of great value, but it doesn't create anything in the long run."⁷ Since gambling is simply a zero-sum game, just a wealth redistribution process from one's pocket to another's pocket, it is non-productive in nature and

cannot create wealth to the society as a whole, so the money brought to the casinos by local residents can not be counted.

And continuous participation of local citizens in gambling may cause panic to the society as a whole. The problem of pathological gambling is not a big issue in Macau before, because before the issuance of three licenses, the casino industry is dominated by Sociadade de Turismo e Diversoes de Macau, whose Managing Director is Dr. Stanley Ho. He sets a regulation that all the employers are forbidden to place bets in his casinos. Since almost Macau people with the highest exposure in gambling are employed by Dr. Ho, that's why local people, relatively, seldom participate in gambling even though they are living in a very convenient environment. However, the story has been changed after the opening of casinos operated by other licensing companies. Since casinos are no longer monopolized by one company, it means that employers of one licensing company can place their bets in casinos operated by other licensing companies. As a result, more and more people take part in gambling, and more and more people become the pathological gamblers. It is expected that if the degree of the participation in gambling keeps on increasing, the healthiness of the economy would be threatened in long run.

Macau's current situation is compatible with Ricardo Gazel's argument of Cannibalization effect of casinos towards the local economy.⁸ It means that the revenue gained by casinos operators may be shared by local gamblers' losses. Mr. Gazel further points out that cannibalization effect may deal with expenditures by non-local residents who would have visited the area even in the absence of the casino⁹, as the share of casino wins may be due to non-casino visitors' losses and even caused by their expenditures on food and beverages, or other extra services and consumption within the casinos.

Second, casino economies also lose money due to the costs of government services that are not directly offset by casino contributions: extra costs in public security, social services and welfare, infrastructure and health. Casinos may also lead to mafia and criminal activity, resulting in police and judicial system costs as well as costs of victimization and insurance premiums for local citizens, especially for those who live near casinos areas.¹⁰ If people are not absent-minded, people would still remember that the uncontrollable mafia

activities taken place in Macau years before handover. Some government officials who specialized in public security and gambling matters were even assassinated by mafia and criminals have not been arrested until recent times.¹¹

Table 5 shows the negative significant impacts on tourism industry of Macau by mafia and criminal activities; it shows that the number of visitors was decreased dramatically, especially in 1997, when was the year of handover of Hong Kong and the most disquieting period in Macau. Even 1999 was a year of Macau's handover, the total visitors' receipts still dropped by 2%.

However, the situation was completely changed after handover, partly because of the leadership under Mr. Edmund Ho, partly the arrival of peoples' liberation army and partly the determination of SAR government in fighting crimes. The public security has been greatly improved. Visitors feel safe when they travel Macau, so both the number of visitors and receipts has been risen up at a rate of double digit after handover, from around 7.5 millions visitors and 21 billions in 1999 to 17 millions visitors and 69 billions in 2004. It is expected that the figure onwards would be far higher than last year.

Table 5 Visitors Arrival and Receipts Changes

(1995-2004)

	Arrivals (1000)	% change	Receipts (MOP 1000)	% change
1995	7752.5		25,867,266	
1996	8151.1	5.1	24,681,515	-5
1997	7000.4	-14.1	23,011,106	-8
1998	6948.5	-0.7	21,190,249	-7
1999	7443.9	7.1	20,785,245	-2
2000	9162.2	23.1	25,641,319	23
2001	10,279.0	12.2	29,960,478	17
2002	11,530.8	12.2	35,526,007	19
2003	11,887.9	3.1	42,426,937	19
2004	16,672.6	40.2	68,623,561	62

Source: *Tourism Indicators and Yearbook of Statistics*, Statistics and Census Service (DSEC), various Issues.

Everything has cost, the efforts of the SAR government in improving the public security rises up the budget of the government in both police force and custom services. When Mr. Edmund Ho announced to end the monopoly of casino industry in 2000. He foresaw that the public security may be a big problem with the new issuance of casino licenses, so he

took actions in separating Customs Services and Unitary Police Force from Public Security Forces Bureau in 2001, as a preparation to get rid of the potential crimes after the announcement of new licensing companies in 2002. Table 6 shows the budgetary change in departments related to public security, it shows that how the public security budget breaks the record with the increasing number of visitors pumping in and efforts by the government in tackling crimes.

Table 6 shows that the budget of Public Security Forces Bureau and Judiciary Polices was more or less the same before and after the separation of Customs Services and Unitary Police Forces. Even in 2001, the time of establishing two independent departments, the budget was still small. However, after the announcement of three new licensing companies and continuous increase in amount of visitors, the budget of two newly separated independent departments was increased from 50 millions in 2001 to 241 millions in 2004 for Customs Services and from 4.7 millions in 2001 to 19 millions in 2004 for Unitary Police Services.

Because of the increasing number of visitors and the opening of different modernized casinos in financial year 2005, the government budget related to public security will be significantly increased by 6% for Customs Services, 49% for Unitary Police Services, 14% for Public Security Forces Bureau and 21% for Judiciary Police respectively.

Table 6 SAR Government Expenditure in Public Security
(1999-2004)

MOP 1000	1999	2000	2001	2002	2003	2004	2005 budget
Customs Service			50,815	240,726	240,616	242,671	256,987
Unitary Police Service			4654	13,057	12,017	12,584	18,800
Public Security Forces Bureau	1,238,557	1,207,256	1,194,854	1,023,177	1,035,917	1,084,179	1,232,885
Judiciary Police	113,048	110,865	114,152	126,451	135,982	148,105	179,121

Source: Financial Services Bureau

Table 7 again proves Gazel's argument can be withstood, as it shows that government budget spending on public projects,

social services or even health and hygiene would be increased during the development of casino economy. Since more visitors coming in the community, the government needs to improve the transportation and infrastructure for the tourism industry, so table 7 shows that the money spent on social services and public project has been increased by around 1.7 billions since the handover. Even though government expenditure in health and hygiene decreases from 955 millions (before handover) to 945 millions in 2004, it is expected that the budget in this aspect would be risen up again with the introduction of "Individual Traveling Policy", as the multiple increase in number of mainland visitors make them become the majority in the tourists' composition of Macau's tourism industry. Since their concept in public hygiene is "abnormal" (for example, their culture accepts spitting and littering on the street) to the usual practices of Hong Kong people, more resources is expected to pump in so as to keep the city's hygiene because of the increase in number of visitors, especially those from mainland China.

Table 7 Government Expenditure in Other Gambling
Derived Aspects (1999-2004)

MOP 1000	1998	1999	2000	2001	2002	2003	2004
Health & Hygiene	1,142,839	954,614	1,133,583	798,988	639,208	932,837	945,085
Social Services	353,192	667,653	699,420	842,905	816,070	795,483	1,097,184
Public Projects	979,202	716,665	673,019	650,681	835,334	1,419,701	1,947,207

Source: Financial Services Bureau

Third, negative externalities are generally omitted in most economic impact studies of casinos. Negative externalities almost exists in all economic activities, which is the cost borne by society whatever whether people involve in that particular activity or not.¹² It includes the additional public expenditures on police, prosecution and court costs, corrections costs, private costs of protection such as alarms and guards and costs of crimes against persons and property. All these costs are implicit costs borne by the society through tax payment.

Another negative externality deals with the problems of pathological or compulsive gamblers. There are abundant

studies showing that the prevalence of pathological gamblers is highly correlated with the degree of convenience of gambling participation in that region.¹³ Since the social cost caused by pathological gambling can be very significant, the government needs to spend a huge sum of dollars in getting rid of the problems aroused from citizens' excessive gambling. All these are costs associated with and paid by the society as a whole, and must be counted in a negative side when doing impacts analysis.¹⁴

Having more casinos implies that people will gamble more, more people will get into trouble, and more families will suffer. The percentage of pathological gamblers is estimated to be around 4-6% of the adult population. Based on the percentage, the problem of pathological gamblers may not be a big issue. However, pathological gamblers would have different degrees of impacts on their social networks. According to Leiseur's estimation, between 10 to 17 other people are affected by one pathological or problem gambler¹⁵. If we try to multiply the affected people with the number of pathological gamblers, there may be half of the population in the city affected by gambling. This explains why the rehabilitation centers for problem gamblers, like the one provided by Hong Kong Industrial Evangelistic Fellowship in Macau, would not only provide counseling services to pathological gamblers themselves, but also take care of their families and people who have interweaving connections with them.

What makes the question more complicated is the culture that treats gambling as a sole engine to boost up Macau's economy has been rooted in minds of the generations. Mr. Michael Chan, PhD candidate of the University of Hong Kong and an experienced guest speaker in delivering speeches on gambling prevention in secondary schools in Macau, said that before the opening of Sands Casino in May 2004, nearly half of the students dropped out because they are hired by the casino, Mr. Chan said that those students were good at academic, if they sat in public examination, they might promote to Macau University, but they still drop out. "Almost all the top students in Macau study Gambling Studies, Casino Management or hotel management in University. What reasons can we think of to convince the students to spend four more years to prepare themselves doing the job with similar nature?" said by Mr.

Chan. Mr. Chan agrees that the culture makes our generations more short-sighted and ignore the importance of education, as they can not see the difference on the way forward even they receive higher education. Talents and professionals are the most important assets in every economy, if the generations do not care the importance of education; it would cause a panic to the society in near future, as human assets are most important for the competitiveness of all economies. If the supply of talents and professionals are retrenched and declined, how can the economy be sustained and excelled among the others?

Cannibalization effect, additional public sector expenditures and negative externalities are all the costs derived in casino economy. However, most people would have a bi-ased impression that casino can bring prosperity without imposing any cost to the society as whole. This section attempts to examine why the myth is wrong, and, in the next section; the concentration of the paper will be put in analyzing the potential problems and threats of Macau's prosperous economy.

4. Threats of Macau's Prosperous Economy

People may have conservation of my argument that Macau's economy would be in trouble, as Macau's GDP growth rate has been increasing at double digit since handover in 1999. However, I am not going to predict when is the "game over" of Macau's economy, instead I would like to point out the threats and potential problems of present Macau's economy during the time of prosperity, so that the government can formulate policies to mitigate the consequences to the local economy when its casinos are under series challenges caused by other factors.

Table 8 is the income and expenditure account of Macau SAR government since handover, it shows that tax from gambling has increased more than triple from 1999's 4.9 billions to 2004's 15.3 billions, however there are only slightly increase in government's income other than gambling taxes. As a result, the total income has been increased double from 1999's 9.9 billions to 2004's 19.3 billions. In the meantime, government's total expenditure has been increased by 37% only, it means that the rate of increase in total income is far higher than the rate increase in total expenditure; as a result, government has experienced a huge sum of surplus, especially after the issuance of new casinos licenses in 2002.

Table 8 Income and Expenditure Account of Macau

(1999-2004)

MOP 1000	1999	2000	2001	2002	2003	2004
Total Income	9,859,031	8,815,896	9,814,799	11,084,282	14,120,229	19,299,964
Tax from gambling	4,898,083	5,780,911	6,423,404	7,870,376	10,674,498	15,330,301
Property Income	2,058,728	545,449	838,981	454,576	872,089	731,001
Direct taxes	1,522,500	1,294,972	1,285,345	1,134,074	1,070,570	1,292,115
Other Revenues	1,379,721	1,194,563	1,267,068	1,625,256	1,503,072	1,991,466
Total Expenditure	9,805,360	8,764,939	9,669,250	9,577,688	11,621,466	13,431,689

Source: Macau Financial Services Bureau, Research Department

However, the dramatic increase in government's income in gambling taxes implies that government relies on that income to sustain its operation. Table 9 is the percentage of gambling tax to total income and total expenditure. It shows that Macau SAR government tends to over rely on taxes from gambling, as the contribution of tax in government's income rises up from 50% in 1999 to 79% in 2004. The taxes from gambling can even cover the total expenditure of the government. If the casino economy can be sustained forever, the financial status of Macau SAR government is still healthy. However, if its casinos are suffered from keener competition from the outlying countries, its income may be seriously affected. In return, the government's income will be dramatically affected as well since gambling taxes is the major and only pillar to Macau SAR government.

Table 9 Percentage of Gambling Tax (GT) to Total Income (TI) and Total Expenditure (TE)

(1999-2004) (%)

	1999	2000	2001	2002	2003	2004
GT/TI	50	66	65	71	76	79
GT/TE	50	66	66	82	96	114

Source: Macau Financial Services Bureau, Research Department

According to Macao Statistics and Census Bureau, the average stay of visitors is around 1.1 day to 1.3 day in past decade and half of them are one day return visitors, especially those from mainland China.¹⁶ The figure tells us that visitors do

not stay in Macau longer with the opening of more modernized casinos; nearly all visitors (excluding underage) would visit or even place bets in casinos, and they agree that they can only think of casinos when they travel to Macau, it means that nothing is special in Macau to most of the visitors.

According to Visitors Analysis Report 2003 by Hong Kong Tourism Board, the average length of stay of visitors in Hong Kong is 3.5 days and most of the mainland visitors would spend more than \$8000 on consumption in their trip.¹⁷ (Hong Kong Tourism Board, 2003) However, excluding gambling expenditures, mainland visitors only spend \$3290 in Macau (Table 3).

Table 10 further shows the distribution of visitors' distribution in consumption and non-consumption expenditure. It reflects that the purchasing power of mainland visitors is far higher than those from other regions. However if we split the expenditure into consumption and non-consumption expenditure, where accommodation occupies almost the whole part of non-consumption expenditure and consumption expenditure simply means costs on shopping and restaurant, we find that non-mainland visitors only spend around \$200 in consumption. It proves that Macau has insufficient tourists attractions or facilities for visitors, that's why people consume less in their trip. Even the consumption expenditure of mainland visitors is far below from \$8000 in Hong Kong.

Table 10 Visitors' Consumption and Non-consumption Expenditure

MOP	Consumption Expenditure	Non-consumption expenditure
Mainland	1908	1382
Other regions (include Hong Kong and Taiwan)	221	701

Source: Macau Statistics and Census Bureau

If Macau's government does not take action to divert visitors' expenditure from casinos, not all people in the society as a whole can enjoy benefits and prosperity brought by casinos, so the government should build more tourists facilities for visitors. Just like in Las Vegas, revenue from visitors' loss in casino only occupies 25% of the total income, the remaining is from visitors' expenditure in theatres, convention and exhibition,

shopping malls, restaurants, amusement parks and other entertainments.¹⁸

But Macau SAR government faces a structural problem in developing its tourism, since the territory is only 27.3 km² in size, consisting Macau Peninsula, Taipa Island and Coloane Island. as large as a down town district in Hong Kong. Unfortunately, the tourist's areas are already very crowded, especially during the public holidays, and there are no spaces nearby for further development.

Apart from over reliance of Macau's government in casinos industry and the quality of tourism industry in Macau, the unhealthy composition of Macau's economy may also cause panic in the future. According to Macao Economic Services, the tertiary industry dominates the whole economy, as more than 90% economic activities are in this sector.¹⁹ Since the development of casino industry hinders the domestic production, Macau's society relies on import to sustain its daily needs and various demands. This explains why the trade deficit has been risen up from 697 millions in 2001 (before the issuance of new gambling licenses) to 5.3 billions in 2004, as more and more economic activities are shifting to services sector. It means that there tends to be absence of productive industry in Macau. The reliance of casino industry in sustaining Macau's economy would become stronger.

Table 11 Trade Deficit in Macau (2001-2004)

MOP 1 Million	Trade Deficit
2001	697.3
2002	1,398.0
2003	1,397.1
2004	5,342.9

Source: Macau Economic Services

What is worrisome is that while the trend of trade deficit becomes larger, total export drops at a significant rate. Table 12 compares the import and export figures in the first quarter of 2004 and 2005. It shows that total export has been dropped by 18.1% in the first quarter of 2005 (a rate much faster than in the past) and trade deficit has been increased by 1.1 billion MOP. As a result, we can foresee that the export and import ratio will have been declining, the latest ratio is only 58.4%, it shows how serious of the problem is.

Table 12 Import and Export Figures

(1st Quarter of 2004 and 2005 Comparison)

MOP (million)	2004	2005	% change
Total Export	4,268	3,496	-18.1
export of local products	3,229	2,408	-25.4
re-export	1,039	1,088	+ 4.7
Total Import	5,710	5,985	+ 4.8
Trade Deficit	-1,442	-2,489	
Export/ Import Ratio (%)	74.7	58.4	

Source: Macau Economic Services

As a way to earn foreign exchange to support its huge trade deficit, the government has no choice to incline to casino industry, as it is the only industry which can provide sufficient foreign exchange to satisfy the domestic needs in various demands. Since casino industry is important to Macau's tourism industry and which is the only pillar of Macau's economy, the government should take measures to diversify the society's reliance on casinos, at least should diversify its services sector.

5. Conclusion: The Way Forward for Macau's Economy

Till this moment, the success of Macau's economy is the "policy prosperity". Policy here not only means the gambling policy adopted by Macau, but also the "Individual Traveling Policy" by Central government of China and the restricted gambling policy in other outlying countries. Since Macau is the only city in China where gambling is legal, people who want to participate in gambling in the region have no choice - they must go to Macau, however, the success of Macau initiate the governments of other countries in the region to build casinos, as a way to attract foreign capital and stop the capital outflow from their countries.

The Prime Minister of Singapore, Mr. Lee Hsien Loong announced that Singapore government will issue two casino licenses for bidders to build integrated resort in Sentosa (famous tourist's area) and Bayfront (the business hub in the country) respectively in April 2005. Following Singapore, both Thailand and Taiwan government are under serious consideration of the feasibility of building casinos.

The legalization of casinos in the region may have serious

impacts on Macau's casino industry. As mentioned before, the existing tourist facilities are strictly limited and land resources for further development is absent, so when other countries legalize the building of casinos in their countries, Macau would be in a big trouble, as Macau needs to face competition.

Also, China is under the international pressure by allowing their citizens traveling to other countries without restriction, as it commits the details of human right character. If China opens its border by allowing its citizens traveling freely, Macau and Hong Kong may not be their first choice, as they will have more choices at that time. Macau would be in a poorer position than Hong Kong too, as Hong Kong's tourism industry is more diversified. Hong Kong still has its own competitive power. But if other countries also have casinos, the unique attractiveness of Macau would be disappeared. What is the reason for mainland visitors to travel Macau, especially for those who have been there before?

Macau SAR government should find out the advantage over other countries, so as to excel among its competitors. Macau SAR government's formula of building more casinos to attract money may only be effective in short run, but not in long run, especially after the opening of casinos in other countries. The government should, instead, diversify its tourism industry and upgrade the quality of its services, otherwise Macau will become the loser eventually.

What the government needs to do is to enlarge the Bathtub, instead of tolerating the water pumping in the bathtub, as the economy in this format would be saturated. Besides diversifying its tourism industry, the government should invest in education, especially, the generations can not see the correlation between their future and study. Legislator Mr. Au Kam Sun, recently proposes free high school education²⁰, as a way to increase the opportunity cost of early school leaver and competitiveness of Macau.

To be fair, Mr. Edmund Ho has discovered the problems, so he tries to solve the problem of limited land resources. Recently, Macau has engaged in a close-door discussion to study the feasibility of cooperating with Zhu Hai local government to develop Heng Qin island, a place with territory 80 square km and 4 times larger than Macau territory. However, Guangdong provincial government recently interferes the issue

and proposes to develop Heng Qin island with other provinces under the " '9+2' agreement". The arrangement of Guangdong government probably leads to hot debates in Macau's society. It is expected that Macau government would directly bargain (or has already bargained) with both Guangdong and Central government in future.

Before the problem of limited land resources to be resolved, the government may be better to form a close-tie coalition with Hong Kong, as both cities are similar in their cultural and historical backgrounds, but different in positioning. If both cities can jointly promote their tourism overseas, synergy effect would be created. Actually, it is not a strange idea, as one of the famous tourist's guide, Lonely Planet, published an edition by combining these two cities together. So forming a coalition with Hong Kong is the instant method to rectify Macau's over-reliance economy on casino industry.

Notes:

- ¹ Pao, Jay W., "Recent Developments and Prospects of Macau's Tourism Industry," *Macau: AMCM Quarterly Bulletin*, Issue 13(2004), pp. 79-95.
- ² Figure is subject to revision later on.
- ³ Thompson, William N, "Casinos in Las Vegas: Where impacts are not the issue," in Cathy H.C. Hsu (eds.), *Legalized Casino Gaming in the United States*, (New York: The Haworth Hospitality Press, 1999), pp. 107-109.
- ⁴ *Ibid.*
- ⁵ Goodman, Robert, *The New Gambling Economy: Convenient Gambling, Inconvenient Results* (New York: The Luck Business, The Free Press, 1995), pp. 15-35.
- ⁶ Borden, George W. & Fletcher, Robert R., "Economic Impact of Casino Expansion in the Reno Area," in William R. Eadington and Judy A. Cornelius (eds.), *The Business of Gaming: Economic and Management Issues*, (University of Nevada Press, 1999), pp. 431-444.
- ⁷ Extracted from: Letter to Michael K. Hooker, President, University of Massachusetts, Amherst, from James E. Ritchie, Executive Vice President, Corporate Development, Mirage Resorts, Las Vegas, NV (24 May 1994).
- ⁸ Gazel, Ricardo, "The Economic Impacts of Casino Gambling at the State and Local Levels," in James H. Frey (eds.), *Gambling: Socioeconomic Impacts and Public Policy* (London: Sage Periodicals Press, 1998), pp. 71-73.
- ⁹ *Ibid.*
- ¹⁰ Gazel, Ricardo, "The Economic Impacts of Casino Gambling at the State and Local Levels," in James H. Frey (eds.), *Gambling: Socioeconomic Impacts and Public Policy* (London: Sage Periodicals Press, 1998), pp. 71-73.
- ¹¹ Leong, Angela, "Macau Casinos and Organized Crime," *Journal of Money Laundering Control*, Vol.7, Issue.4(2004), pp. 298-307.
- ¹² Gazel, Ricardo, "The Economic Impacts of Casino Gambling at the State and Local Levels," in James H. Frey (eds.) *Gambling: Socioeconomic Impacts and Public Policy* (London: Sage Periodicals Press, 1998), pp. 71-73.
- ¹³ Goodman, Robert, *The New Gambling Economy: Convenient Gambling, Inconvenient results* (New York: The Free Press, 1995), pp. 15-35.
- ¹⁴ Moran, Emanuel, "The Growing presence of Pathological Gambling in Society: What We Know Now," in William R. Eadington, Judy A. Cornelius (eds.), *Gambling Behavior and Problem Gambling* (University of Nevada Press, 1993), pp. 135-142.

- ¹⁵ Leiseur, H., *The Chase: Career of the Compulsive Gambler* (Cambridge: Schenkman Books, 1984).
- ¹⁶ Macau Statistics and Census Bureau, *Tourism Statistics* (2004).
- ¹⁷ Hong Kong Tourism Board, *Visitors Analysis Report 2003* (2003).
- ¹⁸ Thompson, William N., "Casinos in Las Vegas: Where impacts are not the issue", in Cathy H.C. Hsu (eds.), *Legalized Casino Gaming in the United States*, (New York: The Haworth Hospitality Press, 1999), pp. 96-97.
- ¹⁹ Macau Statistics and Census Bureau, *Estimates of Gross Domestic Product 2004*.
- ²⁰ "投資教育提升澳門競爭力關鍵問題", 見《訊報》, 2005年4月2日。