

# High Rollers from Mainland China: A Profile Based on 99 Cases

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## Abstract:

Macao's casinos win a high proportion of their revenue from high rollers from Mainland China but some of these generate social problems back home. We analyze 99 cases of high rollers whose activities came to media attention, building a profile of them based on information in the reports. They were mainly from areas near Macao or from particularly rich regions of China. Most were male, aged 30-49. They tended to be government officials, managers of state-owned businesses or owners of private enterprises. They lost as much as US\$12.08 million on a single trip. Their average accumulated loss amounted to US\$3.36 million by the time their activities were stopped, typically no more than four years from when they started high stakes gambling. Their motives for gambling had been to win money or experience excitement. Early experiences of large wins and cognitive biases regarding gaming appeared to be important factors driving their behavior. Evidence from the 99 cases is argued to suggest inadequacies in the regulation of casinos in Macao which, if not addressed, could threaten the sustainability of the industry there.

**Key words:** Mainland, Mainland China, high rollers, gambling, Macao

## Background: Casinos in Macao

Gambling in Macao was legalized in the mid-nineteenth century and its casinos have long drawn visitors from neighboring jurisdictions. However, it is only in the last decade that the sobriquet of 'the Las Vegas of the East' has become a realistic description of its status in the world gambling industry. According to Chan (2004), the annual gross gaming revenue (GGR) of Macao casinos at the time (1999) of the reversion of sovereignty from Portugal to China had been US\$1.6 billion. But, by 2007, it was US\$10.5 billion (Gaming Inspection and Coordination Bureau, <http://www.dicj.gov.mo>), 52% percent higher than the corresponding figure for the casinos on the Las Vegas Strip in Nevada. Macao had by then become the largest gaming market in the world.

Both supply and demand factors underpinned the rapid growth in revenue following the realignment of sovereignty. On the supply side, the government of the new Special Administrative Region (SAR), which enjoys considerable autonomy within the People's Republic of China, opened up the market to international casino operators, resulting in considerable investment in new facilities such that visitors are currently offered 31 venues, including resort style casinos on the Vegas model. On the demand side, spectacular increases in incomes in Mainland China (for convenience we may simply say "Mainland") provided a favorable market environment and the flow of visitors from Mainland was facilitated by the introduction of the individual visits program (allowing easier access to exit visas) in 2003. By 2007, Macao was drawing 27 million visitors per year and over 55% of these were from Mainland (Hong Kong and Taiwan were other important sources).

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Mainland China not only generates the majority of visits to Macao, it also generates the bulk of casino revenue. One industry estimate is that over 90% of the players in Macao casinos are from Mainland (Wang, 2006). Moreover, they are heavy spenders and the result is that revenue in Macao is derived from relatively few customers compared with Las Vegas: per capita gaming expenditure is about six times as great in Macao (Gu, 2006). A further illustration of the tendency to heavy spending is that an intercept study of casino patrons in Macao by Ozorio and Fong (2004) found that the median amount bet (measured as a proportion of the individual's monthly income) per casino visit was 0.72.

Even typical players in Macao therefore wager heavily by world standards. But it is the sums lost by individuals at the extreme end of the distribution that dominate casino revenue: 'high rollers' are exceptionally important in Macao compared with Las Vegas. One percent of players account for 30% of total GGR (First Economic & Financial Daily, August 14, 2006). In the first three quarters of 2008, VIP rooms yielded 69% of total GGR or US\$7.3 billion (Gaming Inspection and Coordination Bureau, <http://www.dicj.gov.mo>); in contrast to some other jurisdictions, the same tax rate is imposed on GGR derived from VIP rooms as in the rest of the casino and so the percentage of tax revenue accounted for by VIP rooms is similarly high.

In the VIP rooms, betting, almost all of which is on baccarat, can go as high as US\$300,000 per hand (Gu & Gao, 2006). This is consistent with the image of Chinese gamblers generally as heavy players who take risks and gamble to seek instant rewards in terms of money and excitement (Lam, 2005; Lau & Ranyard, 2005; Blaszczynski et al., 1998). It is, of course, unsurprising, given these characteristics, that Chinese gamblers appear at higher risk of developing pathological gambling problems than those from many other cultures (for a review and discussion of evidence, see Raylu & Oei, 2004).

### **Risks to the Macao industry**

The decision of the government of the SAR to make the gaming industry the core of the Macao economy has been justified to the extent that GGR growth has been paralleled by an equally impressive rise in income per head in the territory. Indeed, per capita GDP now exceeds even that of Japan. However, there are obvious risks of basing economic well-being on a single industry. Some of these risks have been faced by historic cases of other cities, such as Monte Carlo and Las Vegas, which have grown on the back of offering legalized gaming in a region where it had been unavailable previously: there may be strong gains to be had in the short-term; but success is noticed and, in the long-term, rival gaming centers emerge in imitation of the leader. This is already happening in Asia where Singapore and, possibly, Taiwan will in the future provide alternative resort casino destinations pitched at the international market. Commentators have offered conflicting advice on how Macao should confront these challenges. Gu (2006) advocates focusing on improving the VIP room business, where Macao already excels, rather than trying to compete with the more mass market anticipated approach of Singapore. However, Lam (2005) recommends attempting to broaden the market by seeking to develop the role of slot machines, which are still of marginal importance in Macao (but dominant in Las Vegas).

Our perspective is that the most striking feature of the Macao economy is that it is not just heavily dependent on a single industry (gaming) but also on a single source of players (Mainland China) and a single segment of the market (high rollers playing baccarat). Given this, Lam's plea for diversification is readily understandable.

A particular threat to the Macao industry arises from the high proportion of revenue accounted for by high rollers from Mainland China. Generally in history, destination gaming cities have placed little emphasis on the social cost of gambling relative to its economic benefit. It is true that ready access to casinos by locals may induce problem gambling cases in the local population (and the prevalence survey by Fong & Ozorio, 2005, revealed that there was an issue in Macao). However, in a destination casino

city, most players are visitors and thus most problem gambling is exported elsewhere (and consequently largely ignored as a factor to be taken into account in planning the development of the industry).

Given Macao's situation, it would, however, be imprudent for it to ignore indefinitely the negative externalities imposed by its industry on Mainland China. If problems are taken home from Macao, they may become manifest in forms such as induced suicides, the bankruptcy of private enterprises and corruption in public offices. Macao takes a very high proportion of its revenue from Chinese high rollers. If their activities result in threats to social harmony in Mainland China, legal and regulatory decision making in the People's Republic has the potential to respond by reducing or cutting off the supply of high value customers to Macao. Indeed, this has already happened in the form of restrictions on public servants traveling to Macao and (from 2008) a limitation on how frequently residents of Guangdong Province can cross the border into Macao. The introduction of the latter policy appears to have caused a fall in VIP room revenue during 2008. Further policy response by Mainland could seriously undermine Macao's casinos (and so the tax revenue of the Macao Government).

It is clear that the sustainability of Macao casinos is threatened from Mainland China unless Macao adopts a credible social responsibility program that offers some chance of containing social problems experienced in Mainland as a result of excessive play in the SAR. Blaszyński et al. (2004) note that an effective response to gambling-related problems is likely to require a coordinated approach from all stakeholders. A first step to planning such a program is to understand what sorts of problems have emerged in Mainland from the activities of the high rollers on whom Macao depends. To this end, we have gathered, for systematic analysis, a sample of media reports from Mainland (and Hong Kong and Taiwan) concerning those who had gambled for high stakes in Macao casinos. Usually the high rollers featured in the reports had come to the attention of the media because their gambling career had been terminated by, for example, suicide or exposure of financial and other crime used to fund gaming activities. A scan of media

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reports reveals typical characteristics of high rollers who got into trouble and this may be helpful in Macao in formulating policies to identify players who are at risk. Further, it is of interest, as noted below, that the media reports reveal that the perceptions of gambling and symptoms of dysfunctional play of these high roller problem cases are in fact similar to those reported for pathological gamblers generally.

Our *primary* purpose is therefore to present evidence concerning high rollers whose activities became public knowledge. Our *secondary* goal is to reveal some behavioral patterns in high rollers generally and this should be of interest

not only in Macao but also to the industry and its regulators worldwide: Chinese high rollers also play high stakes baccarat in casinos from Las Vegas to Melbourne (Innis et al., 2003). Those spending exceptional sums at the tables may of course have personal dysfunctional gambling problems or be laundering illicitly procured funds. High rollers therefore require special attention from casinos and the public agencies supervising them.

Naturally, we are mindful that high rollers who get into trouble to the extent of attracting media coverage may not be typical of the population of *all* high rollers. A sample obtained on the basis of newspaper reports is necessarily non-random and thus may or may not be representative of the whole population. Nevertheless it should be noted that it is difficult to find out *anything* about Chinese high rollers because of the very high emphasis they place on privacy. Indeed, Wang & Eadington (2008) note that the structure of the VIP rooms in Macao has evolved in a distinctive way partially to ensure that the customers leave no trail of their transactions; for example credit is obtained from VIP representatives without any paperwork being completed. Given this strong preference for anonymity, it is unlikely that data on the behavior of high rollers in Macao can be obtained

by conventional means. Our research at least gathers information documented on one group of high rollers. Further, there is reason to suppose that in some respects this group may in fact fairly reflect the characteristics of the population of all Chinese high rollers. For example, we note below that most media reports related to events that terminated the subject's high stakes gambling career within four years of its start. We also note that most of the agents providing and managing VIP customers are able to remain active in the market for just a few years because the acquaintances they recruited can typically no longer sustain their losses. Thus the normal duration of a high roller's career, as implied by our sample, is more or less similar to that implied by inference from independent information relevant to all high rollers, even though the subjects in our sample had their activities truncated in special circumstances.

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### **What is meant by 'high roller'?**

Although dictionaries have defined a 'high roller' as "a person who gambles for very high stakes" (Webster New World Dictionary, Merriam-Webster online, Oxford English Dictionary Online), there is no consensus as regards just how much money can be regarded as 'high stake'. Different authorities and agencies have set different benchmarks, according to a variety of criteria. For example, a Discovery Channel documentary defined high rollers (whom it called premium players) by reference to credit quotas, describing Las Vegas premium players as Tier-1 (those with a minimum credit line of \$20,000), Tier-2 (those with credit lines in the range from \$100,000 to \$500,000) or Tier-3 players (those whose credit lines were between \$1 million and \$5 million) (Kilby et al., 2005, p.302). On this definition, a gambler with a credit line as low as US\$20,000 was regarded as a high roller.

Fodor's Las Vegas Compass American Guide defines a high roller as a player who is able and willing to lose \$100,000 or more in a weekend; such players stake at least \$10,000 a hand and have at least \$1 million dollar lines of casino credit (<http://www.betsinvegas.com/vegas-high.shtml>). In contrast, Lucas et al. (2002) do not attempt to define a premium player in such terms but note that most casino marketing departments will track players with average bets of \$50 or more.

In the casino in Tasmania, Australia, a high roller is regarded as a gambler who has a bankroll of US\$10,000, and an average bet of not lower than US\$150. But in the Adelaide casino, also in Australia, a gambler with an average bet of US\$25 each hand is considered a high roller (MacDonald, 2000).

We do not ourselves offer any arbitrary definition of 'high roller' but rather include in our sample reports where the particular media outlet has categorized a gambler as such. Given that many of the reports note sums of money lost by the player, this provides some perspective regarding what Chinese societies in Mainland, Hong Kong and Taiwan understand by high stakes gambling.

### **Methodology**

This study used content analysis as a technique to study Mainland Chinese high rollers. According to Neuman (2003, p. 219) "content analysis is a technique for gathering and analyzing the content of text. The content refers to words, meanings, pictures, symbols, ideas, themes, or any message that can be communicated". The data for analysis were news media reports collected from the Internet. By checking Newspaper Channel (<http://epaperidoican.com.cn/newspaper/index.aspx>) and Complete Newspaper Web (<http://www.87871.com/newspaper/index.htm>), we found that the newspapers of all the 31 administrative regions of Mainland, and those of Hong Kong, Macao and Taiwan, have an Internet presence. The Newspaper Channel listed 451 newspapers from

Mainland, and Complete Newspaper Web 599 newspapers and news webs in Mainland, 27 in Hong Kong, 7 in Macao and 12 in Taiwan. It therefore appeared safe to rely on the Internet for gathering news stories on high rollers.

Two search engines, Baidu and Google, were employed to find information about high rollers from Mainland. These two were selected because they are the largest Chinese language search engines in the world, according to China Internet Network Information Center (2007). In 2007 the market shares of search engines in Mainland were: Baidu, 74.5%; Google, 14.3%; Sohu, 2.8%; Yahoo 2.1%; and all other smaller providers together, 6.3%. Plainly, the top two search engines dominated the market and so they were the focus of our search for information on high rollers.

*This study used content analysis as a technique to study Mainland Chinese high rollers.*

The search was conducted between February 20 and April 30, 2008. The key term used in the search was “high stakes gamble in Macao.” Although there is more than one expression for “high roller” in the English language, in Chinese the expression here is the only one commonly used. The websites searched included not only those in Mainland (in simplified Chinese characters), but also those in Taiwan, Hong Kong and Macao (in traditional Chinese characters). There were 15,300 items found on Google and 109,000 items on Baidu. By reading the first 500 items on each search engine, and deleting repetitions and items not published in formal news media, a total of 106 reports on high rollers were located. Of these, ninety nine were high rollers from Mainland and seven related to players from Hong Kong or Taiwan. Only the first 500 items on each search engine were read because, after 400 items, almost no new cases were found.

In order to avoid any possibly important omissions by searching only with the key term “high stakes gamble in Macao”, the key terms “gamble in Macao” and “Macao casino gambling” were also searched. No further media reports relating to high rollers were found.

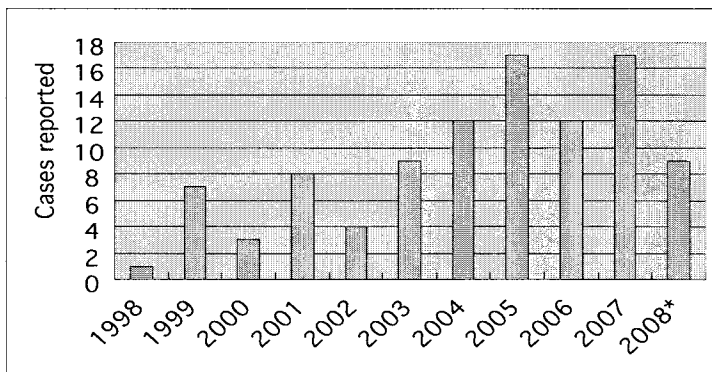
In addition to the Internet search, a search in WiseSearch, a database for news and news media reports from Hong Kong, Macao and Taiwan, was made. From the database, reports relating to *another* sixteen gamblers from Hong Kong and Taiwan were located, thus yielding a final sample of 122. So the total set of cases available for study comprised 99 Mainland gamblers, 18 Hong Kong gamblers and 5 Taiwan gamblers.

### **Dates of the reports and reasons for them**

The earliest report in our sample appeared in 1998 (and our search terminated in 2008). The development of the Internet in China had started only in 1994 and news media had begun to set up websites only in late 1996 and early 1997 (Li, 2001).

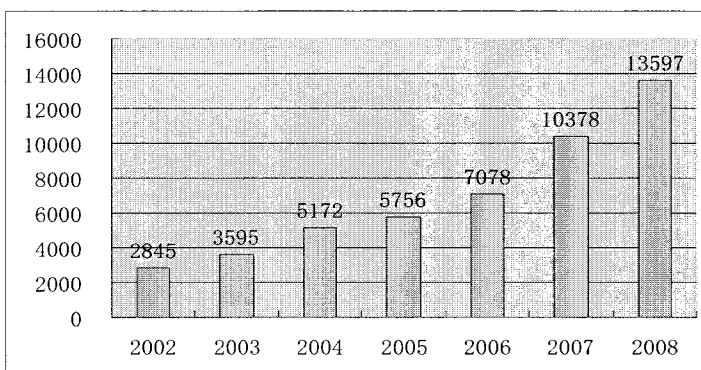
In 1998, there was just one report; but in 1999 there were seven reports. The increase in reports in 1999 may have been partly associated with Macao’s return to China. At that time, the Ministry of National Security increased its secret checks in casinos and thereby uncovered cases of high government officials from Mainland who gambled heavily. From 2002 to 2005, the number of news reports increased steadily but fell sharply in 2006, the year of a campaign that cracked down on gambling in Mainland. However, from 2007, the reports increased again and reached a new peak. In the four months of 2008 included in the search, there were nine new cases (Fig. 1). Generally, the number of news media reports increased in line with the general growth trend of gaming in Macao (Fig. 2).

Fig. 1 Number of Reports on High Rollers from Mainland



\* The number for 2008 is just for the period Jan-Apr.

Fig. 2 The Growth of Gaming Revenue in Macao (in US\$m)



Data source: Macao Statistics & Census Services

Although the first news media report appeared only in 1998, it included reference to a much earlier incident that had occurred in 1991, the year when Guangdong Province published Regulations Forbidding Gambling. In December that year, Tang Boheng, the General Manager of Jiangmen Kitchen Facilities Industrial Company, was given a death sentence because he embezzled about RMB1 million (US\$188,000 at the then exchange rate) and lost all of it gambling in Macao.

While the media record makes no reference to cases before this, Mainland high rollers are very likely to have been active even earlier than 1991 since cases reported in the news media related only to those who had committed crimes and whose crimes had been detected. If a gambler committed a crime but was not discovered, there would not be any report, and it can reasonably be speculated that many gambling related crimes were not discovered.

### Results

The features that lead to the news media reports can be divided into 2 types: those involving crimes and those not involving crimes. Of the 99 Mainland cases, 87 involved crimes. The largest category of crimes, involving taking bribes or misappropriating or embezzling public funds, were committed by government officials or high level managers of state-owned enterprises (SOEs) to raise money for high stakes gambling in Macao. The second category of crimes is fraud: after losing a large amount of money, some high rollers resorted to fraud to get money to support their gambling or pay their gambling debts. The third category is “other crimes”, which includes offences such as illegal fund-raising and illegal detention of people, related to gambling. The non-crime category

includes suicide, attempted suicide and being killed because of gambling (Table 1). All these circumstances are of course unusual, if not sensational, thus attracting reportage from the media.

Table 1 Factors leading to the news media reports

<b>Factors</b>	<b>Number of cases</b>
Crimes involving taking bribes, misappropriating or embezzling public funds	57
Fraud	14
Other crimes	16
Suicide or being killed for reasons related to gambling	12

### **The Geographical Distribution of Mainland High Rollers**

As shown in Table 2, the 99 high rollers from Mainland were from 22 provinces or municipalities directly under the central government (out of a total in Mainland of 31). The provinces or autonomous regions without high rollers reported were Hebei, Shandong, Henan, Yunnan, Qinghai, Tibet, Inner Mongolia, Ningxia and Xinjiang. These areas were either far away from Macao or had a low income level.

Table 2 The Source Areas of High Rollers from Mainland China

<b>Area</b>	<b>Cases</b>	<b>Area</b>	<b>Cases</b>
Guangdong	36	Hunan	3
Zhejiang	12	Jilin	2
Hubei	8	Sichuan	1
Shanghai	5	Tianjin	1
Beijing	4	Guizhou	1
Jiangxi	4	Hainan	1
Shanxi	4	Heilongjiang	1
Liaoning	3	Gansu	1
Fujian	3	Shaanxi	1
Jiangsu	3	Anhui	1
Chongqing	3	Guangxi	1

The province with the highest number of high rollers in the sample was Guangdong, followed by Zhejiang. These two provinces, which accounted for 48 of the 99 observations, are amongst the richest in Mainland and are close to Macao. Guangdong, in fact, borders Macao and, from most of its cities, Macao can be reached by road in 2-3 hours. Although Zhejiang is a little further away, it has direct flights from its capital, Hangzhou, to Macao, with just 2 hours and 15 minutes flight time. Thus traveling from Hangzhou to Macao can be as convenient as traveling between Guangdong and Macao.

### **Occupational status of Mainland high rollers**

Table 3 displays the occupational status of the 99 high rollers in the Mainland sample. The biggest group (33) comprises government officials (the term used here to refer to anyone working in a government organization in a managerial position). The next largest groups were private business owners (25) and high ranking officials of state-owned enterprises (SOEs) (19). The latter includes anyone who was working in a senior post in an SOE, including general managers, vice general managers, directors of departments, presidents of state-owned banks, managers of bank branches etc. The final specific group

(8), cashiers of enterprises (cashiers are defined here to refer to anyone who has charge of money and collects and records payments), were all, except one, from SOEs (including a state-owned bank). This was deduced from the reports either specifying their employer or identifying their crimes as ‘embezzlement of public funds’ or ‘misappropriation of public funds’. That most cashiers involved were in the public sector might reflect stricter control systems in the private sector *or* a reluctance by private businesses to involve the judicial system *or* a lower level of media interest where public funds are not involved. The miscellaneous group of eleven cases, ‘others’ in the Table, includes cases of lawyers, gamblers whose identities were unknown, those not employed, criminal gangsters, salespersons, one manager of a collectively owned plant and others. None of these sub-categories included more than two cases.

Table 3 The occupational status of Mainland high rollers

<b>Occupational status</b>	<b>Number</b>
Government officials	33
Private business owners	25
High level managers of SOEs	19
Cashiers of SOEs	8
Others	14

### **The amount lost from gambling**

Only 56 of the 99 cases revealed information on the amounts lost on individual trips to Macao. Where there were figures on more than one individual trip, we recorded the highest one-time loss. On this basis, losses ranged from US\$6,038 (RMB50,000) to US\$12.08 million (RMB100 million). The median loss was US\$120,800 (RMB1 million). This is almost comparable to the average consumption reported by the Macao Daily, which quotes government data as showing that the spending of a high roller in a VIP room averaged US\$125,000 (one million Macao dollars) for each visit (Macao Daily, August 21, 2008). This is another indication that the high rollers in the sample were in fact typical of Macao high rollers generally.

Possibly of greater interest are the aggregate losses of these high rollers during the whole period during which they indulged in high stakes gambling in Macao. From the perspective of the casinos, the high roller’s career loss represents his total value to them. From the perspective of the source from which the funds were raised, this represents the loss the rogue gambler imposed on them.

Of the 99 cases, some explicitly reported the total loss but others did not, or else presented ambiguous data. In calculating total losses as reported in Table 4, the following principles were followed:

- (i) if there were specific figures, the exact figure was calculated;
- (ii) if there were no specific figures or the data were ambiguous, the data were not included;
- (iii) if a range of figures was offered, only the lowest one was included in calculations (for instance, if a report said that someone had lost “several million” during his gambling life, then one million was the figure used and if a report said that someone took “more than RMB7 million” and lost all of it, only RMB7 million was recorded);
- (iv) if no loss was mentioned, but a person’s gambling debt was reported, then his total gambling debt was regarded as the money he lost;
- (v) if a report said that someone went to Macao to gamble with a certain amount of embezzled money, and later had no money to bring back, the money he embezzled was regarded as the money he lost.



(vi) The reports of course quoted figures in the national currency. In reporting the US dollar equivalent, we converted using (for gambling activity from 1994 on) the median rate for the year as published by the People’s Bank of China (<http://www.pbc.gov.cn>). We used the mean rate published in Baidu Encyclopedea (<http://baike.baidu.com/view/16730.htm#4>) for gambling activity before 1994 as the median was not available. Note that the reports we gathered date from 1998 but sometimes they refer to gambling by the subject in earlier years and so we always use the exchange rate of that time. Where a figure quoted related to a loss incurred over more than one calendar year, we used the highest of the rates for those years, making the estimate in US dollars conservative.

These principles were deliberately conservative to the extent that only lower bound estimates of losses entered the data set. The only exception was in the case of Li Jingren who had embezzled “more than” US\$94,200 (RMB780,000) and lost “almost all” of it in gambling. Here, US\$94,200 (RMB780,000) was taken to be an appropriate figure.

Following these principles, it was possible to estimate aggregate loss in 83 of the 99 cases. Losses by occupational status are exhibited in Table 4. The most spectacular loss, US\$96.62 million (RMB800 million) related to the owner of a private business, and generally losses were much higher for this group, and for government officials and high level managers, of SOEs than for cashiers and “others.”

Table 4. Total accumulated loss for individual high rollers from Mainland (in US\$)

<b>Occupational status</b>	<b>Reported Cases</b>	<b>Highest Amount Lost</b>	<b>Lowest Amount Lost</b>	<b>Mean Amount Lost</b>	<b>Median Amount Lost</b>
Government officials	24	12.08m	18,100	2.76m	1.15m
Private owners	20	96.62m	163,000	8.25m	1.21m
High level managers of SOEs	18	12.00m	18,100	1.88m	1.00m
Cashiers	8	1.29m	103,900	550,940	452,300
Others	13	2.24m	12,100	616,000	346,600

It is instructive to contrast the scale of losses in the 83 Mainland cases with losses noted in the 23 reports available on high rollers from Hong Kong and Taiwan. Table 5 illustrates that Hong Kong and Taiwan ‘high rollers’ lost money on a much less heroic scale than those Mainland gamblers whose careers came under the media spotlight. Maximum losses in this limited sample are far below those for the worst cases amongst Mainland players. In fact, minimum figures suggest that the media in those areas might be rather liberal in applying the term ‘high roller.’

Table 5. A Comparison of Cumulative Gambling Losses in \$US by High Rollers of Three Areas

<b>Areas</b>	<b>Reported Cases</b>	<b>Highest Amount</b>	<b>Lowest Amount</b>	<b>Mean Amount</b>	<b>Median Amount</b>
Mainland	83	96.62m	12,100	3.34m	876,800
Taiwan	5	3.36m	400	945,000	186,000
Hong Kong	18	1.67m	63	209,000	18,000

### **The Age of High Rollers**

How old were the high rollers when they began to gamble in Macao? Age was reported in 58 of the 99 cases. The periods for which their gambling in Macao had lasted varied between one and several years. If measured by the age at which they started, the oldest was 60 and the youngest 24. The distribution is shown in Table 6. Note that the

subjects had typically embarked on their episodes as high rollers in middle age (35 of the 58 cases beginning in their thirties or forties).

Table 6. Age Distribution of High Rollers (measured at the start of their high stakes gambling) N=58

Ages	Number of Cases
20-29	6
30-39	19
40-49	16
50-59	6
60 & over	1

### **Duration of high stakes gambling**

For how many years can a high roller from the Mainland keep up his high stakes gambling activities? There were 56 cases for which duration could be calculated. Of these, 42 had had ‘careers’ lasting for four or fewer years and only two had lasted more than seven years (Table 7). The two longest durations related to high ranking government officials who could afford high stakes gambling for so long because they were taking bribes. They had started gambling at a time when the Mainland authorities exercised less monitoring and control of officials gambling in Macao than has been the case in recent years.

The finding is in line with discussion of VIP customer representatives by Wang (2005). VIP customer representatives are agents who find high rollers and bring them to VIP rooms in Macao casinos. According to Wang, there is high turnover amongst this group because, after their customers (usually people they or their friends know very well) have lost all their money in a few years, their customer sources are exhausted: then the old representatives have to leave the market and new representatives with access to new customers take their place.

Table 7. Duration of high rollers’ gambling N=56

Years	Number
1	11
2	9
3	10
4	12
5	5
6	5
7	2
More than 7	2

Caution should of course be exercised in interpreting the duration data. As already conceded, the information available does not come from a random sample of all Mainland high rollers playing in Macao nor even from a random sample of all those playing with illicitly acquired funds. Rather it includes only observations of those whose careers have been terminated by exposure. Duration is not observed for those who completed their careers as high rollers without their crimes having been found out. Nevertheless, the limited duration observed is suggestive of the length of time beyond which such large accumulated losses have been incurred that the crimes related to them become very hard to conceal. Of course, the duration of a particular high roller’s career depends on many factors, including his financial resources, the frequency of his visits to Macao casinos and the duration of each of his gambling sessions.

### Gender

*Of the 99 cases, only six related to women.*

Of the 99 cases, only six related to women. Five of these were cashiers (the other was a leader in a local bank). The male high rollers, on the other hand, consisted of different kinds of people, including government officials, managers of SOEs, private business owners, and gangs of thieves. As far as the amount of money lost is concerned, women high rollers gambled much less heavily. The average loss over all of the 83 cases where loss could be calculated was US\$3.3 million, while the average loss for the six women was only US\$1.3 million. From this, we might draw the tentative conclusion that the bulk of Mainland high rollers' spending came from males.

### Motivations for gambling

In only 33 of the 99 cases in the Mainland sample were motivations for gambling mentioned. These were varied and included seeking a pleasant sensation, seeking stimulus, winning money, demonstrating ability, and others. But two factors that appeared relevant to understanding why subjects continued to gamble stand out: early experience of big wins and cognitive biases in respect of gambling. In twelve of 33 cases, subjects referred to the influence of having won money in early gambling experiences. After winning 'big money', many of them felt excited, or believed that it was easy to win money in casinos; thus they became heavy gamblers. That this should be common in a sample of players whose gambling had been dysfunctional is consistent with the findings of much research in western countries, which finds that there is often an association between an early big win and problem gambling. For example, Lambos et al. (2007) found that problem gamblers were significantly more likely than other respondents to indicate having had a large win when they first started gambling (43.5%, compared to 38.2% of 'at risk' gamblers and 11.0% of 'not at risk' gamblers). Wiebe et al. (2001) reported that, when participants were asked about a first big win, only one in four gamblers recalled one; however, as the severity of gambling problems increased, the likelihood of recalling a first big win also increased progressively from 21.7% among non-problem gamblers to 63.6% among the most severe problem gamblers. Thus experience and memory of a big win at the time gambling activity commenced may serve to encourage further gambling activity and this common finding is reflected in the sample of extreme gamblers analyzed here.

Cognitive bias is another factor explored in the literature on problem and pathological gaming. Baccarat, the game of choice for most high rollers in Macao, is a game of pure chance: "the game has no memory, with each result being effectively independent" (MacDonald, 2001). The winning probabilities are random, with the casinos having an advantage vis-a-vis gamblers. But many high rollers do not accept this. They believe, to quote from some of our 99 reports: "I have good luck and can make money very easily", "it is a short cut for getting money", "as long as one has enough money, he is sure to win", "the more one loses money, the more money he is sure to win", "and I have mastered the secret of gambling". Because of such cognitive biases, it is easy to appreciate why high rollers kept on gambling even after accumulating very substantial losses, leading to serious consequences. Table 8 records statements by subjects of the cases in our sample that illustrate their motivation for gambling and continuing to gamble.

Table 8. Motivation for gambling.

Motivation	Language quoted in reports
Get pleasant sensation	<ul style="list-style-type: none"> <li>● Experience the pleasure of winning money.</li> <li>● Seeking excitement in casinos out of Mainland.</li> <li>● Gambling is purely for an adventure, for excitement.</li> </ul>
Winning money	<ul style="list-style-type: none"> <li>● I want to win 10 million, then I'll go to live abroad.</li> <li>● If I win, I'll become rich.</li> <li>● If I win this time, I want to win more next time.</li> <li>● I must win back the money lost, I must, I cannot go back this way.</li> <li>● Even if I win money, I will not leave, I want to win more.</li> </ul>
Winning experiences when first time gambling	<ul style="list-style-type: none"> <li>● When Ma Huiming went to a casino in Macao, and won HK\$13,000 with HK\$2,000, he was too excited and had a sleepless night.</li> <li>● Ma Yong won HK\$200,000 the first time he went to a casino. This windfall made him hopelessly addicted to gambling.</li> <li>● Jin Jianpei took HK\$3,000 to a casino to try his luck and won more than HK\$30,000. He was too excited to go to sleep that night.</li> <li>● After he won a large sum of money, Chen Huannai became ambitious and swell-headed.</li> <li>● Cui Yan went to Casino Lisboa to gamble for the first time and won HK\$300,000.</li> <li>● Li Jingren won US\$70 with only US\$30 worth of chips. He was greatly pleased and thus became addicted to gambling.</li> <li>● At the very beginning, Ah Kang was lucky and won some money. So he could not stop gambling even when he wished to.</li> <li>● Shen Hualin won RMB180,000 with only RMB5,000. He thus discovered that gambling was very exciting.</li> </ul>
Cognitive biases	<ul style="list-style-type: none"> <li>● I have good luck, so can win a lot but lose little.</li> <li>● It is too easy to make money in casinos.</li> <li>● I have good luck. If things keep on like this, I could easily win 10 million.</li> <li>● It is faster to earn money by gambling than by doing coal business!</li> <li>● Gambling is a short cut for making money. It is well- concealed and safer than other means.</li> <li>● I heard that the chance to win is very great in Macao casinos.</li> <li>● As long as one has enough money and good luck, he is sure to win money.</li> <li>● I don't think I will remain unlucky.</li> <li>● I don't think I could not win money!</li> <li>● I really believe that I can win back my money.</li> <li>● If one loses a lot, one can win a lot.</li> <li>● If I am given one more chance, I can win back the money lost.</li> <li>● If I can get another 300,000, I can reverse the losing situation.</li> <li>● I have almost mastered the recipe for winning money.</li> </ul>
Show ability	<ul style="list-style-type: none"> <li>● To gamble in Macao can show one's heroic qualities.</li> <li>● To gamble in Macao for enjoying one's gambling skill.</li> </ul>

### The consequences of high stakes gambling

It was to fund high stakes gambling that most of the high rollers in our sample embarked on a path of crime. The crimes they committed include embezzlement of public funds, taking bribes, fraud etc. The high stakes gambling of high rollers from the Mainland brought serious consequences to themselves as well as to the rest of society. Of the 99 cases, fifteen were executed and two were sentenced to death but reprieved; twenty were imprisoned for between ten and twenty years; seven committed suicide or were killed by others; and more than ten private enterprises went bankrupt.

*It was to fund high stakes gambling that most of the high rollers in our sample embarked on a path of crime.*

### Discussion

Based on analysis of these 99 cases, we have found that the high rollers from Mainland who were subsequently involved in media exposure came from rich areas or areas close to Macao. They tended to be male, middle aged and government officials, high level managers of state-owned enterprises, or owners of private enterprises. They had money themselves or could get money easily. The amount gambled on a trip to Macao ranged from US\$6,000 to US\$12 million (RMB50,000 to RMB100 million). Their total loss during their whole gambling life as a high roller amounted to an average of US\$3.3 million. Their high stakes gambling lasted about four years and, after that, due to their crimes being detected or other causes, their gambling was stopped. The motivation to gamble was to win money or seek excitement. Early big win experiences and cognitive biases were important factors in making many of them keep on gambling.

Of the 99 cases, government officials represent a high proportion, which could be because government officials could get money more easily and thus gambled higher stakes and got into trouble more often. An alternative explanation is that the public expected higher standards from government officials, so that the media were more readily inclined to report their lapses.

The 99 cases reveal that high rollers' activities in Macao can have serious social consequences in Mainland China. They also raise questions concerning systems of control in force (or, more precisely, absent from) the Macao casino industry.

First, many government officials from Mainland China were brought to Macao by VIP representatives. Such agents deliver customers to the casino, having identified them as potential clients by careful research of their backgrounds (Wang & Eadington, 2008). Thus they knew the income level of the Mainland officials and knew when the source of their money was suspicious. Nevertheless they encouraged them to gamble and lent large sums of money to them.

Second, in many of the cases, players exhibited clear signs of pathological gambling behavior. For example, the subject of one of the reports in our sample was said to have played for 6 days and nights before having to be carried from the casino. A very similar case was reported recently (Nanfang Daily, January 9, 2009). In neither incident was the player stopped. Again, the casinos and their agents did not appear to accept any responsibility for inappropriate levels of play.

This is possible because Macao's system of regulation imposes no social responsibility code on casinos, whether in mass market or VIP rooms. In the case of VIP rooms, the situation is further exacerbated by the distinctive institutional arrangements. Wang & Eadington (2008) describe in detail a system where the casino assigns the operation of the VIP rooms to natural or legal persons whose names are not precisely recorded in their licenses. The operator of the VIP room in turn does not then deal directly with the high rollers themselves but only with agents (junket operators). These agents, who require no license, have a system of remuneration that offers a clear and strong personal incentive for them to maximize levels of play by their clients. Where they encourage play by making loans to clients to enable them to continue a session, no documentation is issued.

The contrast with jurisdictions in other areas of the world is striking. For example, credit in other regions is allowed either not at all or with restrictions. Australian and American regulation typically requires personal licenses for key managers who are bound by codes of social responsibility. In the United Kingdom, the Gambling Act (2005) imposes a requirement that casinos make a specific named individual responsible for intervening (and recording) when a customer shows obvious signs of pathological play. In Macao, key personnel are unlicensed and have a financial incentive actually to encourage excessive gambling.

The lack of a regulatory framework for anticipating and preventing harm associated with gambling exposes Macao to the risk that Mainland China will conclude that its only course is to restrict the flow of gamblers into the SAR. This implies that the sustainability of the Macao casino sector might well depend on it adopting regulation systematically addressed at preventing the sorts of problems (bankruptcies, fraud, abuse of public funds) reported in the 99 cases we have examined. We detected that high rollers who got into trouble often displayed similar signs and symptoms as observed in general problem gambling populations and, if stakeholders agreed on a new social responsibility framework, this could apply to both the mass market venues and the VIP rooms where high rollers play.

Although this research captures some basic characteristics of high rollers from the Mainland, based on an analysis of 99 cases reported by the Mainland news media, some caution should be exercised concerning its results. First, as the news media tend to pay attention only to the most prominent cases, thus reflecting the high rollers at the highest end of the group, the characteristics of those high rollers that gambled less are not fully

reflected in the results. Second, the reports may contain errors, or the people concerned may not remember exactly the actual events (in particular it is demanding to expect high rollers to remember exactly how much money had been lost over several years). Third, data for this study were collected within a specified time period. The composition of the high roller group is likely to change over time such that, when the Mainland China government applies a crack down on gambling by government officials and CEOs of state owned enterprises, there are fewer with this background but more private business owners. Nevertheless, the data provide an insight into the gaming careers of those who gambled big in Macao but whose career ended in death, suicide, imprisonment or bankruptcy. It is striking that extreme behavior as noted here may be related to similar factors as reported generally for populations of dysfunctional gamblers, most of whom engage in gaming on a much more limited scale.

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