

5.- IMPACT OF TAKEOUT RATE ON REVENUE, by Mr. Bobby CHANG, Head of Betting Services, Hong Kong Jockey Club

Mr. CHANG introduced his presentation by setting some common definitions :

☞ *“Pari mutuel betting is one of the prevalent forms of betting in many jurisdictions. The basic concept in pari mutuel betting is one of a “pool.” Customers place bets into a common pot of money – pool. When the results are known, money from the people who lose the bet will be used to fund prizes for the winners.*

☞ *In this model, “revenue” is the sum of dividend and takeout. In simple terms, revenue is the total value of all bets from customers. In some jurisdictions, “revenue” is more commonly referred as turnover, investment or wager.*

☞ *Dividend is the prize money that goes to winners. Simple enough.*

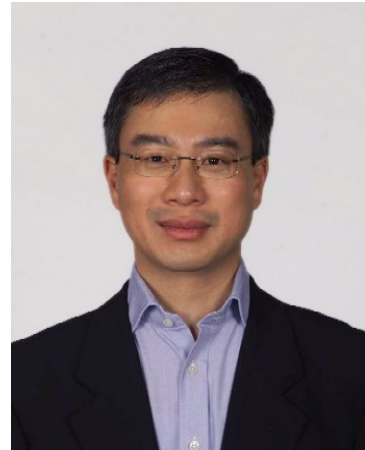
☞ *Takeout is effectively the commission “taken out” by the operator of the pool to cover expenses such as taxes, betting duties and operating expenses. Of course, any remainder after deduction of expenses would become profits for the operator.*

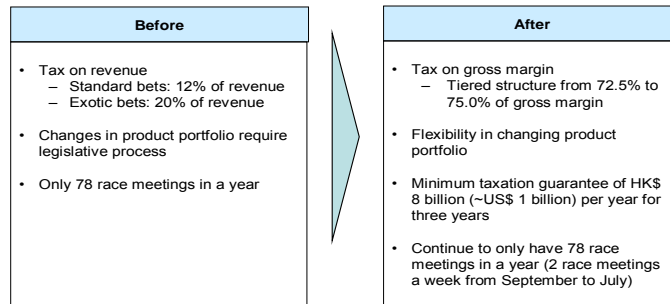
Takeout is generally expressed as a percentage of revenue. For example, in Hong Kong, the takeout rate on standard bets is 17.5% of revenue and the takeout rate on exotic bets is 25% of revenue.

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Let's proceed to take a look at an experience that we have in Hong Kong.

At the beginning of our 2006/07 season, i.e. September 2006, the Hong Kong Government approved a number of changes to the betting duty regulations.





2

Previously, betting duty was on revenue. The duty rate on standard bets was 12% of revenue. And the duty rate on exotic bets was 20% of revenue.

Also, in the old framework, changes to our horse race betting product portfolio – be it new products, product refinements or changes in takeout – require a lengthy legislative procedure. In short, changes to the product portfolio are highly difficult to achieve and require a lot of time.

Starting in September 2006, betting duty is charged on gross margin. Gross margin is defined as revenue minus takeout minus rebate. The duty rate on gross margin is tiered, starting at 72.5% of gross margin, rising to 75% of gross margin as our income rises. And the same rate applies to gross margin derived from all bet types – standards as well as exotics.

As part of the reform, the Hong Kong Government has also granted the HKJC flexibilities in making changes to our product portfolio. For example, the HKJC can now set its own takeout rates, is allowed to introduce a rebate scheme and can launch new products and product refinements with greater ease.

These flexibilities, however, came at a cost. As part of the package, the HKJC has undertaken a taxation guarantee of HK\$8 billion per annum for three years. This is equivalent to around US\$1 billion per annum.

But in terms of race days, the HKJC is still limited to 78 race days per year, i.e. roughly two race meetings per week from September to July. Compared to the situation in many jurisdictions, the supply of races, and thus opportunities for the churning of betting dollars, is limited.

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Following the passage of the betting duty reform, the HKJC introduced a rebate program in September 2006.

The rebate program targets high-value tickets and is part of a concerted effort with the Hong Kong Government to help address the illegal gambling situation in Hong Kong.

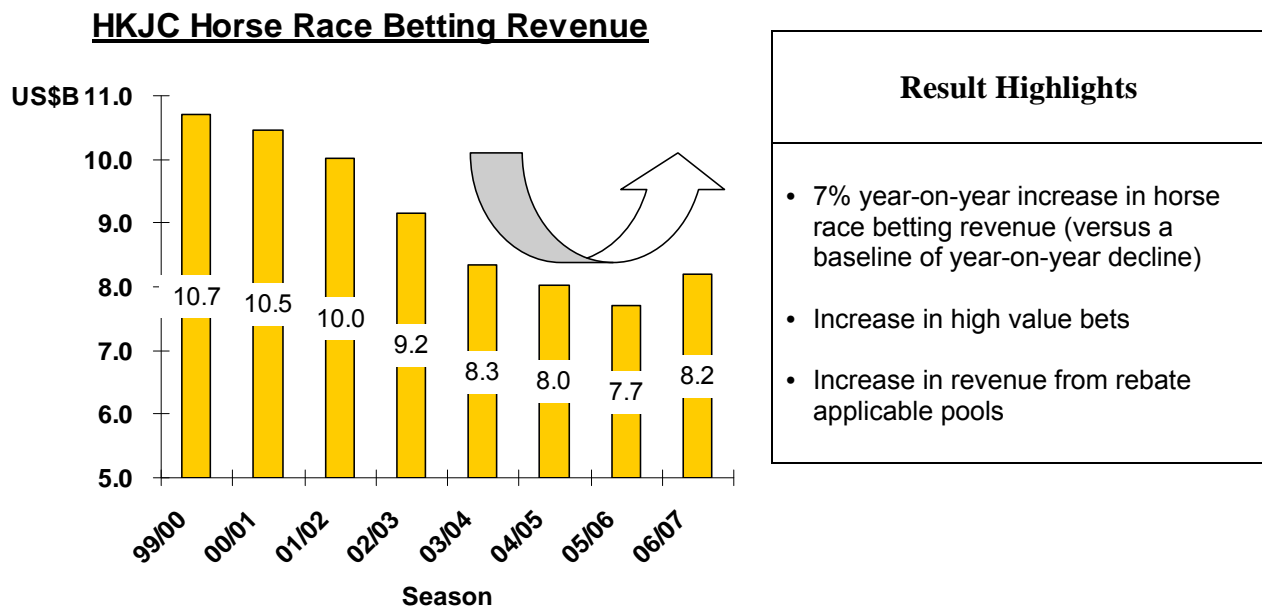
The rebate program is applicable to four pools: Win, Place, Quinella and Quinella Place. These four pools account for roughly 85% of the HKJC's total revenue. Furthermore, these standard bets are the main products offered by the illegal market.

To qualify for a rebate, customers need to have HK\$10,000 or around US\$1,300 of losing investment in a single ticket.

The rebate percentage is set at 10% of the losing amount.

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Results of this rebate program have been encouraging. For the first time in 10 years, horse race betting revenue reversed the declining trend and achieved a year-on-year growth.

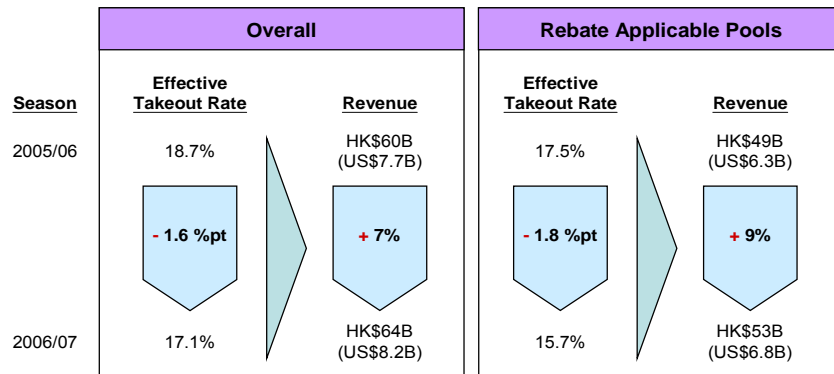


From revenue of US\$7.7 billion in 2005/06 season, revenue grew to US\$ 8.2 billion in 2006/07 season. This represented a 7% growth, which is significant especially in view of a declining baseline.

There has been an increase in high value bets, i.e. bets of HK\$10,000 or more, i.e. approximately US\$1,300 or more.

And of course there was a significant increase in revenue from rebate applicable pools. Whereas overall revenue grew by 7%, revenue from Win, Place, Quinella and Quinella Place – the rebate applicable pools – grew over 9%.

Let us zoom in on the details.



5

In 2005/06, the HKJC overall effective take out rate was 18.7%. As different bet types have different takeout rates, the overall takeout is the blended average rate.

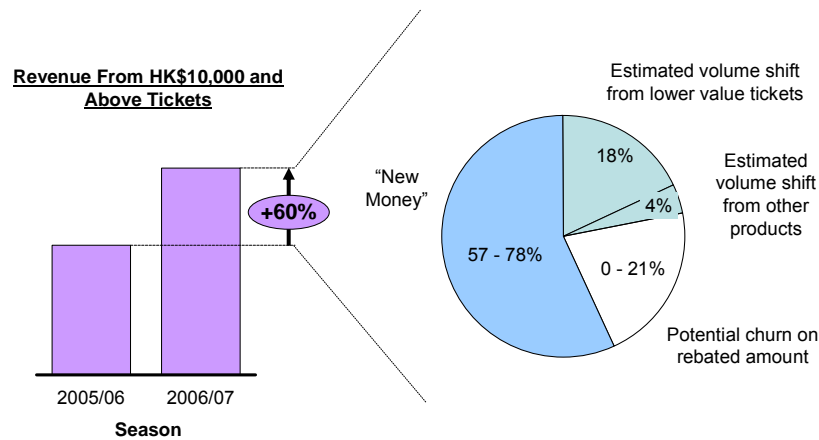
To side track a bit, the takeout rate on our standard product is 17.5% and the takeout rate on our exotic products is 25%.

With the cost of this rebate program, the HKJC's effective overall takeout rate in 2006/07 was reduced to 17.1%.

And as mentioned before, turnover grew from US\$7.7 billion to US\$8.2 billion.

Now if we just look at the situation on rebate applicable pools. Effective take out went from 17.5% to 15.7%. However, turnover grew by more than 9% from US\$6.3 billion to US\$6.8 billion.

The results highlighted a number of important topics: price competitiveness and understanding of customers' price elasticity.



6

Let's for a moment take a look at the high value tickets – i.e. HK\$10,000 and above, or approximately US\$1,300 and above.

From 2005/06 to 2006/07, revenue from these high-value tickets increased by around 60%.

If we then look at the breakdown on this revenue increase, we can see that it came from two main areas, excluding churning. One: significant amount of "new money." Two: fair amount of shift of revenue from lower value tickets and other products.

Approximately 22% of this increase, i.e. the 18% plus the 4% on the upper right hand quadrant of the pie, can be attributed to revenue shift from lower value tickets and other bet types.

Churn – being the money that is being "reinvested" from winning dividend – is an interesting topic. But for our purposes, we have put down a range – from 0% to 21% – so as to bracket the possible impact of churn.

The remaining portion – 57% to 78% – can be credited to "new money," i.e. money that was previously not in the system or more directly money that we believe was previously in the illegal market.

Two things.

The lowering of our effective takeout rate has addressed the issue of price competitiveness vis-à-vis the illegal market.

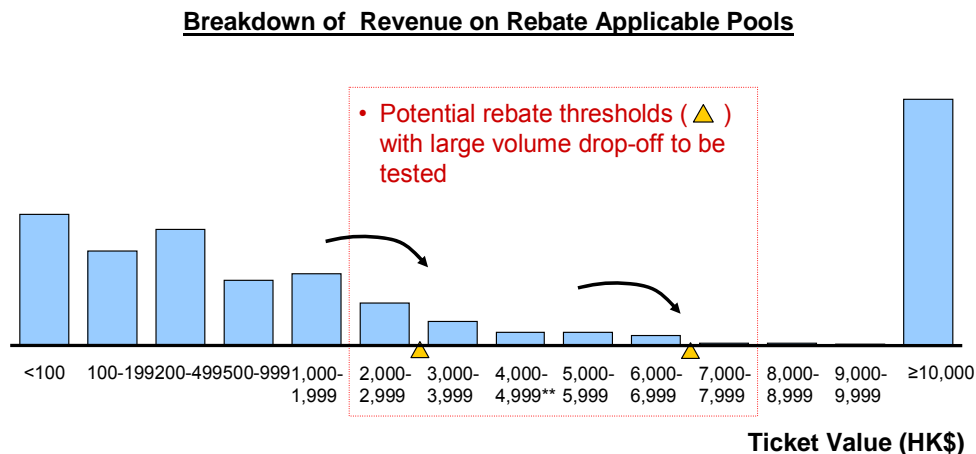
Based on our intelligence, it is a prevalent practice in the illegal market that a 10% rebate on losing investment or in some case 10% discount on investment amount is offered.

Our rebate program has closed at least part of the pricing gap, thereby reducing the leakage of gaming dollar to the illegal market.

Second, the change in takeout rate has highlighted the dynamics of price elasticity.

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To get a bit more flavor of the situation before we talk about the theory, let me share with you some of the analysis that we are working on at the moment.



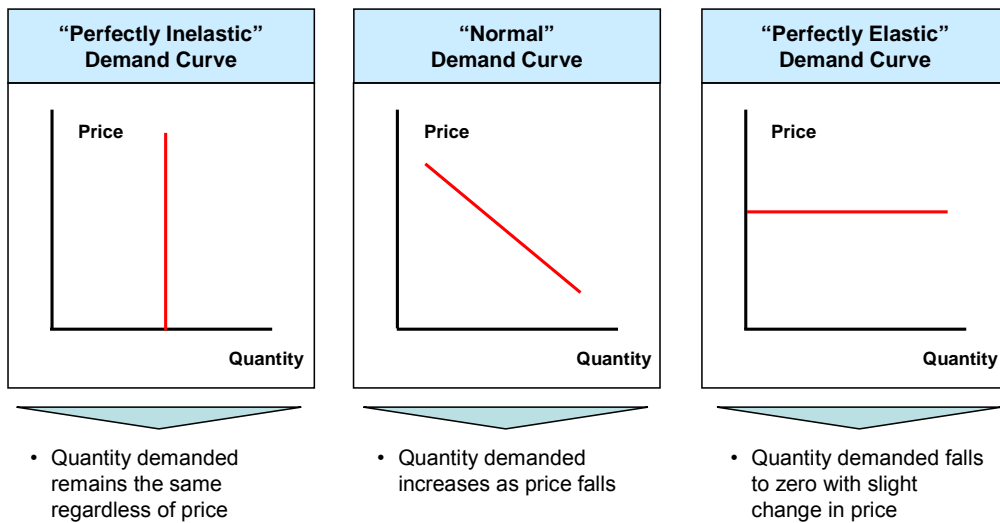
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This chart shows the revenue of the rebate applicable pools across different ticket values. The height of each column represents the amount of revenue in that particular ticket-value bracket.

By looking at the turnover breakdown, we can determine the “best” places to set our turnover thresholds. As you can see from the chart, there appears to be a substantial drop in revenue when we move across the HK\$3,000 mark and another substantial drop in revenue when we move across the HK\$ 7,000 mark. As such, these are thresholds where we can do more analysis.

Thereafter, of course, we will have a series of analysis to figure out the appropriate rebate percentages.

The theory behind these shifts in volume is the price elasticity of demand. To understand the theory, let’s look at three different demand curves.



8

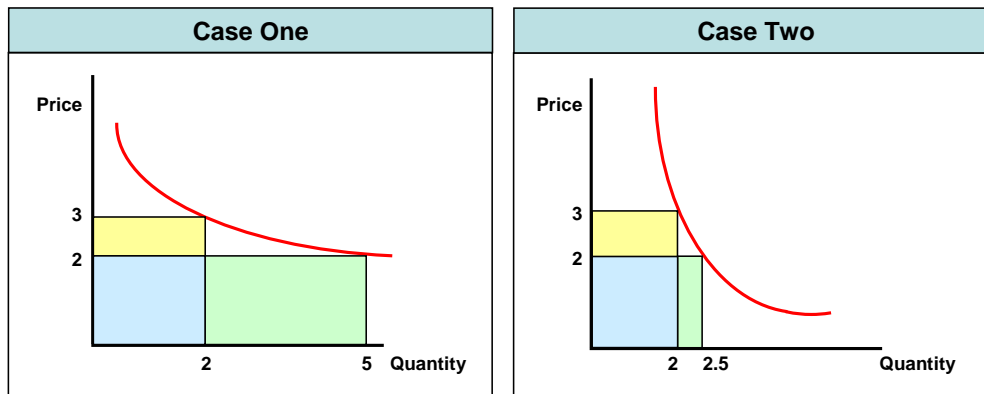
The first one on the left is what we call a “perfectly inelastic” demand curve. This obviously is an “extreme case” – as nothing is perfect, right?! The horizontal or “x” axis indicates the quantity being demanded. The vertical or “y” axis indicates the price level. Basically, quantity demanded remains the same regardless of price. Often, medicine is being cited as one of the items that may have some of this characteristic.

Skipping over the graph in the middle, let’s talk about the one on the far right. This curve is being referred as “perfectly elastic” demand curve. Again, this is the other “extreme case.” Quantity demanded falls to zero with a slight change in price. A banknote is the classic example of a perfectly elastic good. Nobody would “pay” \$10.01 for a \$10 bill.

In between, we have “normal” demand curves. And we have one shown in the middle. As price decreases, quantity demanded increases.

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To understand the implications, let’s take a look at two hypothetical examples in detail.



- When price goes down from 3 to 2, quantity goes up from 2 to 5
- Revenue goes from 6 to 10

- When price goes down from 3 to 2, quantity goes up from 2 to 2.5
- Revenue goes from 6 to 5

→ **The key is the shape of the price elasticity curve**

9

“Case One” : we have quantity on the horizontal or “x” axis, meaning as we move from left to right, quantity increases. And we have price on the vertical or “y” axis, meaning as we move higher, price increases.

Let us focus on the combined yellow-plus-blue box first. Price is 3. Quantity is 2. Revenue – 3 times 2 – is 6.

Now let’s look at the combined blue-plus-green box. Price becomes 2. Quantity becomes 5. Revenue – 2 times 5 – is 10.

So based on this elasticity curve on the left, as price drops from 3 to 2, quantity demanded increases from 2 to 5, and revenue increases from 6 to 10.

“Case Two” : Based on this elasticity curve, as price drops from 3 to 2, quantity demanded increases from 2 to 2.5, and revenue decreases from 6 to 5.

Therefore, to determine the impact of price on revenue, it is important to understand the shape of our customers’ price elasticity curves.

In the context of horse race betting product, price is primarily the takeout rate.

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HKJC is undertaking a study to understand our customers’ price elasticity on horse race betting products.

We are undertaking a price elasticity study to get a better understanding of our customers’ price elasticity on horse race betting products.

This study entails several steps.

First, it is important to segment of our customers into different groups who share similar price elasticity characteristics.

Second, a choice or trade-off exercise will be conducted to understand our customers' decisions on how much and what to bet under different scenarios.

Once we have an understanding of our customers' response under different scenarios, we would be able to derive the elasticity curves.

With these curves, we can then systematically work through different pricing options so as to optimize the contribution of our product portfolio.

With these curves, we can then better assess the impact of takeout rate on revenue”.

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