

# A Study on the Value of New Media Broadcast Rights for Major Sports Events

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**Abstract.** This paper adopts the deductive method to discuss in detail the application of the income approach in the valuation of event retransmission rights. By splitting the income hierarchy to estimate the expected income, applying the market comparison method to measure the share rate, reasonably calculating the discount rate with the help of a model and determining the duration of the income according to the characteristics of the event, constructing a new media retransmission rights asset valuation formula, creating a basic model for the valuation of sports event copyright assets, and applying the Winter Olympic Games. The validity of the model was initially verified by applying the case of the Winter Olympic Games, and it was concluded that under the guidance of the valuation idea of the income approach, it was possible to assess the value of retransmission rights transactions.

**Keywords:** Major sports events; value assessment; broadcast rights value; income approach.

## 1. Limitations of the current valuation method

The market for sports event rights in China has just emerged, the scale and number of transactions are small and the reliability of the data is poor, therefore, the market approach to assess the value of sports event rights lacks the necessary prerequisite of a mature and active trading market, and does not yet have reference value in the assessment of sports event rights. Most of the costs of running a sporting event can only be provided by the sporting event organisation, leaving the information on the cost of the sporting event rights as the subject of the valuation incomplete. As a result, information on the cost of the rights to broadcast sporting events as the subject matter is neither complete nor reliable and cannot meet the basic requirements of the cost approach to valuing intangible assets. The use of the income approach to assess the value of sporting event rights is reflected in two aspects: firstly, as an intangible asset, the value of sporting event rights is formed by the tangible assets of the sporting organisation. This includes resources such as competition and training facilities, equipment and material equipment, and human resources such as athletes and coaches. Secondly, as an intangible asset, the external environment in which the rights to broadcast sporting events are held is also constantly changing. Sports event broadcasting rights are traded before the entire intangible asset development and formation process, and there may be a significant difference between the actual pricing of its appraised value and the value of the expected revenue it brings, creating uncertainty risk for the buyer.

In summary, the above three traditional asset valuation methods have obvious limitations in the valuation of sports event broadcast rights.

## 2. Analysis of the value of new media broadcast rights for major sports events

### 2.1 Advantages and disadvantages of the three assessment methods

Table 1 Advantages and disadvantages of the three assessment methods

	Advantages	Disadvantages
Markets Method	Reflects the process of assessing the market value of retransmission rights	Few comparable cases and weak comparability between OB rights is influenced by subjective factors
Income Method	Has a strong theoretical base and practical experience Considered the impact of future revenues from retransmission rights	Future earnings of the business are difficult to predict No uniform criteria for determining the discount rate
Cost Method	Full consideration of factors affecting the value of retransmission rights Data requirements are not high	More difficult to quantify costs Does not reflect the nature of the value of the concession

Guided by the income approach model, the valuation of event broadcast rights requires the measurement of the future revenue generated by the asset, taking into account the cyclical nature of the event product and the risk of transferring the value of the broadcast rights, and the estimation of important parameters such as the expected revenue from the broadcast, the share rate, the discount rate and the duration of the revenue, which are reasonably discounted to the present value at the point in time of the valuation basis date.

Total value of tournament broadcast rights assets = the purchase agreement fee  $Y + \sum_{t=1}^n \frac{K \times R_t}{(1+r)^t}$ , where n represents the duration of the revenue from this retransmission right.

## 2.2 Technical ideas for valuing new media broadcast rights for major sporting events

### 2.2.1 Splitting the revenue hierarchy

Using the total amount paid by members of the event media platform as the operating revenue and the commission expenses of the affiliate channels as the sales expenses, the user top-up stream is forecasted and channel discounts and VAT payments are deducted.

Forecast revenue = average spending per paid user × number of active users × recharge rate × (1 - channel discount) - VAT.

(1) Average spending per paid user. The strength of operational activities, the quality of events, the satisfaction of the user base and the ability of users to pay are the key factors affecting the average spend per paid subscriber on media platforms. This value is low in the early stages of operation due to communication characteristics and audience herding psychology. As large events take place, the value of the number of active users increases accordingly.

(2) Number of active users: The size, structure and recognition of the audience reflects the subjective impression of the event. As consumers of the broadcast rights, the willingness of viewers to pay indirectly indicates the potential commercial value of the event.

(3) Payment rate: In the early stage of event promotion, the number of platform users and payers grows rapidly, and after the membership reaches a certain size, it enters a mature stage where the revenue situation remains stable. As the tournament progresses and the attention economy dissipates, the funds show a downward trend. The tournament payment rate should be combined with the remaining life cycle of the tournament to reasonably predict the trend of change.

(4) Channel discounts: Refer to the contractual agreements signed between the channel operators and the media platforms to reasonably determine the discount percentage.

(5) VAT: A reasonable value based on the actual VAT borne by the media platform in the operation of the tournament.

### 2.2.2 Estimate the share rate

The share rate of the broadcast rights of the media platform is obtained by first selecting several comparable platforms and deriving the average of the proportion of intangible assets to non-current assets, then measuring the proportion of the broadcast rights of the event to total intangible assets, then calculating the revenue of the intangible assets of the broadcast rights of each platform separately and deriving the average of their revenue, and finally arithmetic averaging the contribution rate of the comparables.

### 2.2.3 Estimate the discount rate

As the value of broadcast rights fluctuates frequently and has a short life span, the discount rate should be estimated by carefully identifying the various potential risks faced, summarising the many risk factors and ratio values, and determining the extent to which the discount rate matches the return on the intangible asset. In order to reasonably estimate the discount rate for retransmission rights assets and to minimise the variation caused by subjectivity, a return splitting approach is used. The capital asset pricing model was used to calculate the return on equity of the media platform, estimate the return on debt and forecast the average return on investment in conjunction with the capital structure to arrive at the final return on investment.

### 2.2.4 Estimate the duration of revenues

The duration of revenue for broadcast rights is defined as the length of time over which the event will be economically sustainable and effective in generating excess revenue over its specified lifetime, with the period showing the duration of the event's influence. The duration of revenue should be measured based on the historical operating data of the media platform and the stage of the event's life cycle. Modify the impact factors for the individual characteristics of the event.

### 2.2.5 The impact of other factors

The tax rate is calculated for each media platform by dividing the measured income tax payable by the amount of income payable. In the case of exchange rates involving international events, the functional currency in which the media platform measures revenue, costs and expenses should be counted in foreign currency, and the exchange rate point in time should be reasonably chosen to convert the functional currency into a measurement currency that reflects the assessment results.

## **3. Value Evaluation of New Media Broadcasting Rights for Major Sports Events: Taking 2022 Winter Olympics as an Example**

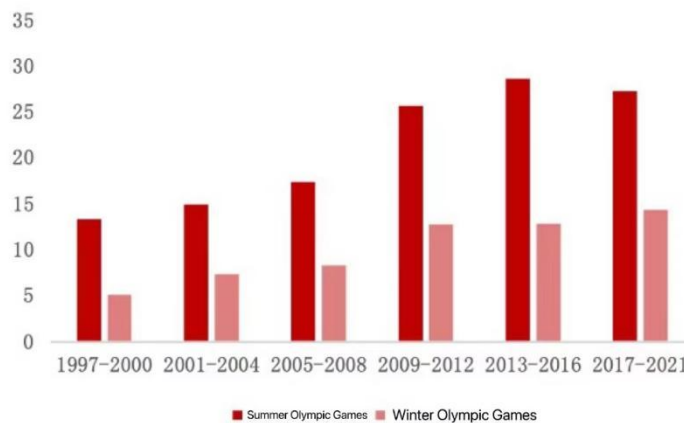
From the income structure of the main business plans of previous Olympic Games, the sale and sponsorship of broadcasting rights have become the main source of income for the Olympic Games. Among them, the International Olympic Committee provides 49% of TV broadcast income and 50% of international sponsorship income for each Olympic Games. As one of the most important sources of income for the Olympic Games, the income from the broadcasting rights of events is huge, accounting for the largest proportion of the total income from hosting the Olympic Games. The amount of funds provided by Universal NBC, the main TV broadcaster of the Olympic Games, continues to rise, and the cost of purchasing the Olympic TV broadcasting rights by TV broadcasters in major Olympic audience countries is also rising. The entry of the Internet platform into the Olympic broadcasting track also increases the total revenue of broadcasting rights.

In order to balance the difference between the Summer Olympic Games and the Winter Olympic Games, the International Olympic Committee has implemented the form of package sale of Olympic broadcasting rights in winter and summer since the beginning of the 21st century. The revenue from the broadcasting rights of the Winter Olympics has also increased year by year. The total revenue from the packaged sales of the TV broadcasting rights of the 2010 Vancouver Winter Olympics and the 2012 London Olympic Games was USD 3.9 billion, and the bundled broadcasting price of the 2014 Sochi Winter Olympics and the 2016 Brazil Olympic Games exceeded USD 4

billion, of which the revenue from the TV broadcasting rights of Sochi Winter Olympics alone was USD 1.26 billion. In 2017-2021, the revenue from broadcasting rights of the global Olympic Games exceeded USD 4.17 billion, including USD 2.73 billion from broadcasting rights of the summer Olympic Games and USD 1.436 billion from broadcasting rights of the winter Olympic Games.

According to the total value of the broadcasting rights assets of the event = the purchase agreement fee  $Y + \sum_{t=1}^n \frac{K \times R_t}{(1+r)^t}$ , it can be calculated that as of February 4, 2022, the estimated revenue of the broadcasting rights of the 2022 Beijing Winter Olympics is 1.182 billion US dollars (about 8.392 billion yuan), and the budget revenue of the final broadcasting rights of the 2022 Winter Olympics is 1.26 billion through data inspection. The error rate  $e = \frac{V-MC}{MC} \times 100\%$ , Where MC is the value of the target asset, and V is the value calculated by applying the valuation model, reach the error rate  $e = 6.19\%$ ,  $e < 15\%$ , the error rate is within an acceptable range, the evaluation model is considered to be feasible.

Chart 1 Revenue from Previous Olympic Broadcasting Rights (Unit: Billion USD)



#### 4. Conclusion

The new media broadcasting right is the core asset and unique resource of the competition. Because of its huge number, diverse forms and fluctuating value, there are many influencing factors, difficult identification and complex valuation techniques, and there are bottlenecks in the evaluation system. Under the guidance of income method, this paper explores various value evaluation indexes and initially establishes a framework to provide basic technical ideas for the pricing of broadcasting rights transactions. The innovation of evaluation ideas is helpful to measure the value of sports intangible assets, construct a perfect evaluation system of sports intangible assets, improve the business quality of China's asset evaluation industry, promote the orderly trading of new media broadcasting rights of sports events, and promote the high-quality development of China's sports competition industry.

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