

Valuation premiums and discounts

Eugene Liu and Noah Wong explain the principles and applications of valuation premiums and discounts in professional business valuation

Origin of valuation premiums and discounts

Values of public entities or controlling interests are always higher than that of very similar or identical private entities or non-controlling interests, but how to adjust and apply these adjustments from a base value of equity interest is a common issue. In general, these adjustments are called valuation premiums and discounts, and they are multiplication factors of a valuation base value. The purpose is to reflect the characteristics differences between a subject equity interest to be valued and a benchmark used in a valuation.

HKFRS 13 application of valuation premiums and discounts

HKFRS 13 *Fair Value Measurement's* application requirements for valuation premiums and discounts are consistency of the unit of account, characteristics alignment of the subject and benchmark assets or liabilities and using the view of market participants. However, it does not provide detailed guidance on what types of valuation premiums and discounts can be applied and how they should be applied and measured. This article provides a practical guideline with an illustration chart.

Types of valuation premiums and discounts

There are various types of valuation premiums and discounts to measure for

each asset's specific characteristics. They can be broadly classified into two levels: entity level and stockholder level, according to their application to the business as a whole or to specific block of stock only.

Entity level

- Conglomerate company discount
- Customer concentration discount
- Discount for lack of marketability
- Environmental liability discount
- Investment company discount
- Key man discount
- Litigation liability discount
- Small size discount
- Supplier concentration discount
- Trapped-in tax discount

Stockholder level

- Blockage discount
- Discount for lack of control

The commonly seen valuation premiums and discounts are key person discount, discount for lack of marketability (DLOM) and discount for lack of control (DLOC).

Key person discount

For many closely held or small- and medium-sized enterprises, the effect of the key person is obviously profound. Key person discount is an amount or a percentage deducted from the value of an ownership interest to reflect the reduction in value resulting from the actual or potential loss of a key person in a business enterprise (IGBVT 2001).

The key person, such as a founder or chief executive officer, plays a critical role in maintaining or developing a business. In many cases, customer relationships, supplier relationships, and employee loyalty are tightly tied with the key person. If the key person leaves or dies, the business performance would suffer a material adverse impact and would not recover for a period of time.

A real-life example is the resignation of Steve Jobs as CEO of Apple Inc. on 24 August 2011 that led to the stock price dropping more than 5 percent immediately. Thus, a discount of the business value would be appropriate if such management concentration occurs.

The measurement of key person discount is based on empirical studies such as Bolten and Wang study (1997) in which the instant changes of stock price of listed entities with small market cap are measured. The negative impact of the entity value measured is on average fall 8.65 percent for smaller public entities and 4.83 percent for larger public entities.

Level of value

Depending on the starting point and the ending point of a business valuation, additional valuation premiums and discounts may be required (see table A). For example, if the value of a controlling equity interest (e.g. 51 percent) of a closely held entity is measured by a market approach based on publicly listed comparable companies (e.g.

P/E), then a controlling premium (i.e. reciprocal of DLOC) and DLOM should be considered because of the minority perspective of a publicly traded stock and the private nature of the target entity respectively.

Discount for lack of marketability

DLOM is an amount or a percentage deducted from the value of an ownership interest to reflect the relative absence of marketability (IGBVT 2001). It has a reciprocal relationship with marketability premium:

$$DLOM = 1 - \left(\frac{1}{1 + \text{marketability premium}} \right)$$

Given two equity interests in two identical businesses, market participants pay a higher price for an equity interest that can be converted rapidly into cash. Therefore, DLOM should be considered if a target entity is a private entity. The valuation techniques for DLOM measurement are classified into financial modelling, empirical studies, and court cases reference (see table B).

The DLOM adjustment generally falls into a range from 20 percent to 50 percent. Depending on which measurement technique is used, the resulting DLOM has a different level. For example, pre-initial public offering stock studies generally give a higher level of DLOM than restricted stock studies do. The reason is that the trading price of restricted stock is based on the premise of short term restriction typically in a range of two to five years and this stock will finally become liquid. As it is difficult to tell when the pre-IPO stock will become listed trading stock, the discount may incorporate a failure probability for the listing and take account

of the high costs involved during the IPO process. All facts and circumstances should be considered in determining which type of DLOM measurement approach to apply in each case. For example, if the target equity interest is going to be listed, pre-IPO stocks studies should be applied.

Discount for lack of control

DLOC is an amount or a percentage deducted from the pro rata share of value of 100 percent of an equity interest in a business to reflect the absence of some or all of the powers of control (IGBVT 2001). It has a reciprocal relationship with control premium:

$$DLOC = 1 - \left(\frac{1}{1 + \text{control premium}} \right)$$

If free cash flow to the entity, which is from a controlling interest perspective, is used in a valuation whereas the target

equity interest is at minority level, DLOC should be considered. The valuation techniques for DLOC measurement are classified into empirical studies and court cases reference (see table C). Unlike DLOM measurement, there is no generally accepted financial modelling developed for DLOC quantification so far. The range of DLOC in general falls between 15 percent to 40 percent but it could be broader than that of DLOM depending on which empirical studies it is based on.

Science and art combination

As valuation premiums and discounts are mainly based on empirical studies and are specific to each set of facts and circumstances, they are not an exact pure science. There is no absolute or precise mathematics. Professional judgment is therefore required for the point estimation based on a reasonable range of valuation premiums and discounts measured from various empirical studies and financial modelling.

Table A - Level of value

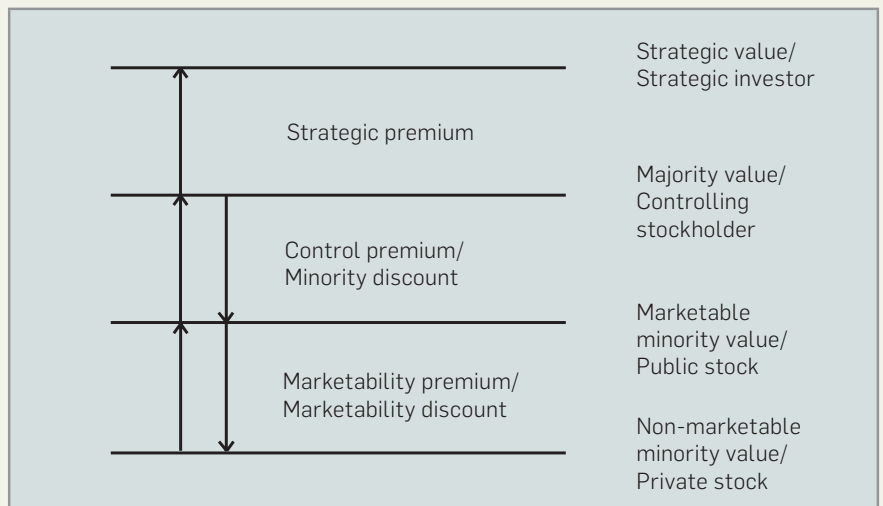


Table B - Valuation techniques for DLOM measurement

Approach	Measurement rationale
Financial modelling: put option methods	A put option represents the value of a right to sell a stock. It theoretically matches the DLOM concept of an inability to exercise a right to sell. This type of model measures DLOM by dividing the put option value by the current stock value. For examples, Chaffe model (1993), Longstaff model (1995) and Finnerty model (2003).
Empirical studies: pre-IPO stock studies	The IPO stock price is compared with the stock price in a private transaction sometime prior to the IPO when the entity is not yet public. For example, Emory studies, Willamette Management Associate studies, and Valuation Advisors studies.
Empirical studies: restricted stock studies	A publicly traded entity issues non-trading stocks directly to an investor in a private placement. Due to laws and regulations, these privately placed stocks cannot be freely traded in a public market for a period of time. Prices of the liquid stocks and the restricted stocks are compared. For example, SEC Institutional Investors studies, FMV Opinions studies, and Willamette Management Associate studies.
Court cases reference	No universal consensus and depends on precedent cases in each jurisdiction.

Table C - Valuation techniques for DLOC measurement

Approach	Measurement rationale
Empirical studies: acquisition premium studies	Premiums paid for acquisitions of listed entities compared with trading prices of the listed entities prior to the acquisition announcements are studied. For example, Mergerstat studies.
Empirical studies: NAV discount studies	If NAVs of listed entities can be reasonably estimated at transaction dates, the percentage of discount observed in minority interest transactions compared with the underlying NAV of the listed entities are studied.
Empirical studies: voting and non-voting stock studies	Studies comparing trading price of stocks with and without voting rights.
Court cases reference	No universal consensus and depends on precedent cases in each jurisdiction.



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Remarks: IGBVT 2001: "International Glossary of Business Valuation Terms 2001", AICPA, ASA, CICBV, NACVA and IBA, 2001