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Can information confusion caused by the financing model of new economy companies be eliminated?

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ABSTRACT

New economy companies often use convertible and redeemable preferred shares with equity and debt characteristics as financing tools to reduce risk during their early stages of growth. According to relevant accounting standards, such preferred shares should be classified as financial liabilities and measured at fair value, with changes in fair value recognized in profit or loss. This can lead to confusing financial information: the better a company's development prospects, the higher its redemption or conversion price and loss, which can result in a large negative net asset value. A successful initial public offering, however, could offset large losses and negative net asset value. Following the development of accounting standards, this article thoroughly analyzes various proposals to modify relevant accounting standards and eliminate confusing information. This article also proposes possible problems and solutions as a reference for accounting standard setters and the various stakeholders in new economy companies.

1. Introduction

New economy companies, such as information technology, biomedicine, and big data companies, have flourished since the 2008 financial crisis. In 2018, the new economy industry accounted for 16.1% of China's GDP, becoming the new engine of China's development. In the same year, the Shanghai Stock Exchange launched the Sci-Tech Innovation Board, and the Hong Kong Stock Exchange relaxed the conditions for the listing of biotech companies to provide a better financing environment for new economy companies. Also in 2018, the China Securities Regulatory Commission (CSRC) released a document outlining new rules for overseas-listed red-chip companies that return to the domestic market for listing. Recently, the CSRC issued

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another document that lowered the value threshold for returning companies but emphasized that they should have independent R&D, internationally leading technology, strong technological innovation capabilities, and other competitive advantages. The Shenzhen Stock Exchange has begun to reform the second-board market to serve growth-oriented innovative and entrepreneurial companies and support the deep integration of traditional industries with new technologies, industries, formats, and business models. In this paper, we examine whether current accounting standards meet the information-communication needs of new economy companies and provide users of financial statements with enough information to make informed investment decisions and contribute to China's economic growth.

In their early stages of growth, new economy companies often use convertible and redeemable preferred shares, which have both equity and debt characteristics, as financial tools to offset high risks, such as asset-light capital structures, low survival rates or short lives, and long-term losses. According to current accounting standards, these financing tools should be classified as financial liabilities and measured at fair value, with the changes in fair value recognized in profit or loss. This approach can lead to confusing financial information: the better a company's development prospects, the higher its conversion or redemption price and loss, resulting in a large negative net asset value. However, the large losses and negative net asset value could be offset by a successful initial public offering (IPO).

The literature includes an abundance of research on hybrid financial instruments such as convertible and redeemable preferred stocks and the financial information they provide. Studies focus on the classification and disclosure of hybrid financial instruments, with some studies demonstrating the economic importance of appropriate classification (Barth et al., 2013). Hopkins (1996) finds that the classification of financial instruments with both debt and equity characteristics affects US buy-side financial analysts' judgment of stock prices. Clor-Proell et al. (2016) report that classification is more important for inexperienced than experienced users. Godfrey et al. (2010) observe that appropriate accounting classification rules could result in more transparent information and reduce information asymmetry. However, studies suggest that a dichotomous classification does not provide users with enough information (Kimmel and Warfield, 1995). Users could evaluate firms better if the features of their hybrid instruments were disclosed (Kimmel and Warfield, 1995). The method of classification would have little impact if financial statement users were well informed (Peasnell, 2013). Bispo et al. (2016) replicate Hopkins's (1996) method and find that analysts are likely to treat a hybrid instrument conservatively, as a liability, regardless of the classification. Sufficient information is more important for experienced than inexperienced users because they make their judgments based largely on the instrument's underlying features (Clor-Proell et al., 2016). Fargher et al. (2019) propose that a mezzanine category for the classification of hybrid financial instruments, such as convertible and redeemable preferred stocks, is a possible way to provide users with better information.

We analyze ways to revise accounting standards on convertible and redeemable preferred shares to eliminate confusion about their financial characteristics, based on the historical formation and revision of the relevant accounting standards and the conceptual framework of financial reporting. We propose solutions to potential problems that domestic and international accounting standard setters and new economy company stakeholders could encounter during the revision process.

The remainder of this paper is structured as follows. Section 2 summarizes the main characteristics of new economy companies that have adopted hybrid financing instruments. Section 3 explains the accounting principles of convertible and redeemable preferred shares and the information confusion they can generate. Section 4 presents an in-depth analysis of various amendments to the relevant standards and proposes corresponding problems and solutions, based on the historical development of accounting standards and their conceptual framework. Finally, a summary is provided.

2. Basic characteristics of new economy companies

2.1. Asset-light

"Asset-light" means that a company's net asset value, recognized and measured by accounting standards, accounts for a small proportion of its market capitalization. The book value of net assets and market value of listed companies in major capital markets have diverged over the years, as shown in Table 1.

Table 1
Unrecognized value of listed companies in the world's major capital markets.

Area	Item	2007	2008	2009	2010	2011	2012	2013	2014
S&P	Net assets less goodwill to market value	23.36%	35.09%	34.21%	33.40%	34.93%	32.54%	28.52%	25.97%
	Ratio of goodwill to market value	13.25%	19.84%	17.20%	16.03%	17.19%	15.82%	13.32%	12.41%
	Unrecognized value to market value	63.39%	45.07%	48.61%	50.57%	47.88%	51.64%	58.15%	61.62%
European	Net assets less goodwill to market value	33.03%	50.35%	44.67%	47.50%	55.12%	50.31%	43.31%	44.52%
	Ratio of goodwill to market value	16.29%	28.32%	21.91%	21.20%	23.99%	20.15%	16.38%	16.95%
	Unrecognized value to market value	50.69%	21.31%	33.43%	31.30%	20.87%	29.54%	40.31%	38.54%
ASX	Net assets less goodwill to market value	24.78%	39.83%	37.92%	38.76%	47.92%	44.93%	41.35%	43.46%
	Ratio of goodwill to market value	9.14%	13.69%	10.40%	10.58%	12.25%	10.03%	8.48%	8.78%
	Unrecognized value to market value	66.08%	46.61%	51.68%	50.66%	39.71%	45.14%	50.26%	47.76%
Nikkei	Net assets less goodwill to market value	76.49%	106.08%	91.68%	105.78%	107.61%	96.73%	90.20%	82.32%
	Ratio of goodwill to market value	2.41%	4.56%	3.94%	4.31%	4.91%	4.46%	4.15%	3.23%
	Unrecognized value to market value	21.10%	−10.64%	4.48%	−10.09%	−12.52%	−1.19%	5.65%	14.45%

Source: European Financial Reporting Expert Group (2016).

Table 1 demonstrates the following. (1) Of the four markets, the S&P 500 companies have the lowest ratio of net assets minus goodwill to market value, averaging approximately 30%, with a low of 25% in 2007. The Nikkei companies have the highest ratio, higher than 90% in most years. The European index companies and the Australian Securities Exchange (ASX) companies are between the S&P 500 and Nikkei companies. (2) European companies have the highest ratio of goodwill to market value in each market, consistently between 16% and 29% and over 20% in most years. The Nikkei companies have the lowest ratio, less than 5% in each year. The S&P 500 companies and the ASX companies are between the European index companies and the Nikkei companies. The Nikkei companies have the lowest ratio for two reasons. First, Japanese companies generally do not develop through M&A. Second, Japanese accounting standards require amortization plus impairment of goodwill. Therefore, an M&A's goodwill, were it to be recognized, would have a low book value due to annual amortization and impairment. (3) Factors (1) and (2) are superimposed. The S&P 500 companies have the highest ratio of unrecognized value to market value. The ratio is over 45% each year, with some years reaching over 60%. The Nikkei companies have the lowest ratio. The European Index and ASX companies fall between the two.

A study by the European Financial Reporting Advisory Group (EFREG) (2016) covers 1,069 companies. Ninety of them were new economy companies. They account for 50% of the sample's total goodwill, indicating that new economy companies are more asset-light than the other companies. Thirty-six of the new economy companies are from the S&P 500. They account for 32% of the total market value of the sample's US companies. Another 36 are from the European index. They account for 29% of the total market value of the sample's European companies. Nine are from the Nikkei index. They account for 21% of the total market value of all Japanese companies in the sample. Another nine are from the ASX. They account for 47% of the total market value of the sample's Australian companies.

Asset-light companies have an increasing proportion of intangible assets and goodwill relative to their assets' total book value. As shown in Fig. 1, the ratio of intangible assets and goodwill to the total book value of assets of new economy companies listed in the US reached 44% in 2018, a 63% increase from 2009. In contrast, the proportion of traditional companies in 2018 was 29%, increasing only 31.8% from 2009. The ratio of intangible assets and goodwill to the book value of assets for new economy companies listed in China was 5.0% in 2018, increasing by 51.5% from 2009. The ratio for traditional Chinese companies in 2018 was only 1.1%, representing an increase of only 10% from 2009.

2.2. Short life span

New economy companies tend to have a shorter life than traditional companies because of their higher risk. According to statistics from the State Administration for Industry and Commerce of China, the average life span of Chinese companies is 6.09 years. Nearly 60% of Chinese companies have a life span of fewer than five

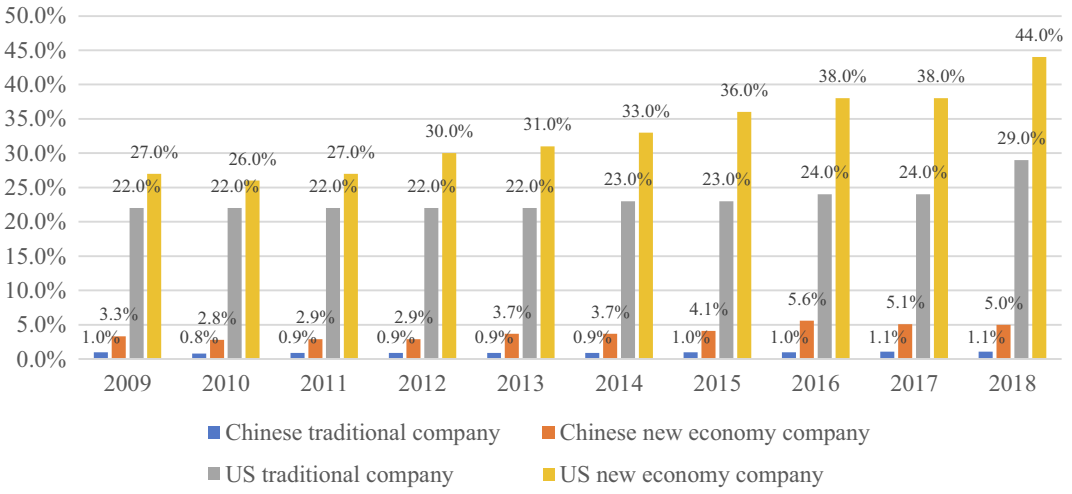

Fig. 1. The ratio of intangible assets and goodwill to total assets of Chinese and US listed companies. Source: CSMAR and COMPUSTAT.

years. The average life span of scientific R&D services companies is only 5.14 years (Liu et al., 2018). According to DT Finance (2020), startup companies in the 10 most popular industries had an average life span of below four years over the past five years (see Table 2 for details). They had short life spans because they had weak business models. Other factors are market pseudo demand, industry competition, business adjustment, product entry time, policy supervision, cash flow disruption, insufficient financing capacity, and excessive business fragmentation.

2.3. Long-term loss

Most new economy companies die in their early stages, and many of the survivors experience substantial long-term losses. In Table 3, we present the historical losses of US and Chinese new economy companies. Amazon, one of the most famous American companies, experienced eight years of losses, including six years of losses after going public. Uber, Tesla, and Dropbox have never been profitable. Similarly, of the 10 Chinese companies examined here, MI and Yixin have experienced losses, though they were profitable after going public. The other Chinese companies continued to lose money after IPOs.

New economy companies sustain continuous losses for six reasons. (1) New economy companies have to make large investments in R&D, but according to current accounting standards, most R&D expenditures can only be expensed. (2) Customer-oriented new economy companies have to make large investments in cus-

Table 2
Survival period of companies in the 10 most popular industries in the last five years.

Industry	Number of failed companies	Average survival period (months)
Game developer	200	47
Integrated e-commerce	195	44
Restaurant	147	43
Loan	134	43
Interest community	124	43
Human resources	118	40
Fresh food	118	38
Life information platform	113	41
E-commerce solutions	111	46
Online dating platform	111	41

Source: DT Finance (2020).

Table 3
Losses of US and Chinese new economy companies by year.

Corporation	Establishment	IPO	Turnaround	Loss duration	Listing place
					US
Amgen	1980	1985	1985	5	US
GILD	1987	1992	2000	13	US
Amazon	1995	1997	2003	8	US
Netflix	1997	2002	2002	5	US
Tesla	2003	2010		15	US
Dropbox	2007	2018		11	US
Groupon	2008	2011	2016	8	US
Uber	2009	2019		10	US
SNAP	2010	2017		8	US
Lyft	2012	2019		7	US
China					
JD	2004	2014	2017	13	US
Tuniu	2006	2014		12	US
Bilibili	2009	2018		9	US
iQIYI	2010	2018		8	US
Pinduoduo	2015	2018		3	US
MI	2010	2018	2018	8	HK
Meituan Dianping	2010	2018		8	HK
Yixin group	2014	2017	2017	3	HK
Ping An Healthcare	2014	2018		4	HK
Zelgen	2009	2019		10	China Mainland

Source: These Companies' Prospectus & Annual Report.

tomer services, and the majority have to be expensed. (3) New economy companies have to spend large amounts on salaries for managers or technical experts, and some companies use various equity incentive plans, both of which greatly increase labor costs. (4) Some new economy companies have to make large investments in fixed assets that are often highly technical and can only be produced in a few countries. These assets are expensive and their economic lives are short, resulting in high depreciation expenses. An asset could suffer impairment loss if it goes quickly out of date. (5) New economy companies often diversify their investments in the industrial chain or new growth points to expand their scale. The lucky few reap sizable profits, while the majority fail and lose substantial sums of money. (6) New economy companies rely on venture capital because of high risks, contributing to substantial long-term losses. This paper will discuss its financing models in depth in the next section.

2.4. Companies with losses still have high valuations and high market value

Many new economy companies have a high market value even though they have experienced large losses over long periods of time and their net assets have a negative book value before and after IPOs. For example, Bilibili is valued at over three billion USD, even though it consistently showed losses before going public Table 4.

Table 4
Bilibili's main financial data before IPOs (in billion RMB).

	2015	2016	2017
Net revenue	0.13	0.52	2.47
Cost of revenue and operating expenses	0.69	16.50	7.74
Gross profit/loss	−0.56	−15.98	−5.27
Loss before tax	−0.37	−0.91	−0.18
Net loss	−0.38	−0.91	−0.18

Source: Bilibili's Prospectus.

Table 5
Changes in market value for Chinese and US new economy companies still experiencing losses after listing (in billion USD).

Company	Financial indicator	IPO	1 year after IPO	2 years after IPO	3 years after IPO	4 years after IPO
Amazon	Net profit	−0.03	−0.12	−0.72	−1.41	−0.56
	Market value	1.44	17.05	26.27	5.56	4.04
Tesla	Net profit	−0.15	−0.25	−0.40	−0.07	−0.29
	Market value	2.53	2.99	3.87	18.52	27.95
JD	Net profit	−0.81	−1.45	−0.55	0.02	−0.36
	Market value	31.61	44.24	36.08	59.08	30.29
Tuniu	Net profit	−0.07	−0.23	−0.35	−0.12	−0.03
	Market value	0.75	1.53	1.10	0.97	0.61

Source: COMPUSTAT.

The valuations and total market capitalization of companies like Bilibili are high or on the rise, even though their financial statements show losses. This phenomenon is common among new economy companies. Table 5 shows four companies' valuations, two Chinese companies and two US companies. Their total market value is high, even though they experienced losses for several years after listing.

3. Financing models of new economy company and related accounting standards

3.1. The main features of the hybrid financial instruments of new economy companies

New economy companies have difficulty raising funds through traditional channels because of the high risk of light assets, low survival rates, short life spans and long-term losses, and unclear development prospects. They have difficulty borrowing money from banks because of their high risk and lack of collateralizable assets. They cannot raise funds through ordinary shares because of their unclear prospects. As a result, many new economy companies raise funds through hybrid financial instruments, such as convertible and redeemable preferred shares. The appendix summarizes the main features of the financing instruments used by some Chinese companies listed on the Hong Kong and US markets. They include the following four features: (1) dividend rights, the right to have priority over ordinary shareholders in receiving noncumulative dividends, plus fixed-rate interest at the original-issue price; (2) conversion rights, the right to convert to common stock at the effective conversion price after the IPO or when required by most holders; (3) redemption rights, the right to redeem the instruments at the higher of the outstanding interest and dividends or the fair value at a certain time following instrument issuance and before the IPO; and (4) liquidation preferences, which take precedence over ordinary shareholders' rights to recover investment capital, receive outstanding interest and dividends, or obtain a proportional share of the remaining assets during liquidation.

3.2. The relevant accounting standards and the main reasons for support and opposition

According to current accounting standards, new economy companies should classify hybrid financing instruments as financial liabilities. They should measure the instruments at fair value, with changes in fair value recognized in profits and losses. These stipulations derive from comprehensive consideration of the following factors:

Dividend rights. The relevant accounting standards stipulate that contractual obligations to deliver cash or other financial assets to another entity are financial liabilities. Hybrid financing instruments come with contractual obligations that require interest payments to the holders of preferred shares at a fixed rate of the original-issue price.

Conversion rights. According to relevant accounting standards, a contract should be classified as a financial liability if it will or may be settled in the entity's own equity instruments and is a nonderivative for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments. The holder of the above-mentioned preferred shares has the right to convert them into ordinary shares at the current

effective conversion price after the IPO or when requested by most holders. The number of common shares that the company will deliver is variable when the holder exercises its conversion right.

Redemption rights. The relevant accounting standards stipulate that the company is obligated to pay holders cash and redeem preferred shares in the event of an IPO failure.

Liquidation preferences. An agreed-upon clause stipulates that the holder has priority over ordinary shareholders to receive principal, interests, and dividends during liquidation or to obtain the remaining property of the company in proportion.

A new economy company experiences higher losses during its development when its stock redemption or conversion price is higher, resulting in a substantial negative net asset value, especially before the IPO. For example, MI's prospectus was based on the IFRS when it prepared to go public in spring 2018. Losses in 2017 amounted to 43.89 billion RMB. Convertible and redeemable preferred shares alone resulted in losses of 54.07 billion RMB. According to the IFRS, shareholders' equity at the end of 2017 was −127.21 billion RMB, of which 161.45 billion was the cumulative loss from convertible and redeemable preferred shares. Large losses and negative net asset value can be offset when a company goes public at a high premium. Some investors find the phenomenon appropriate for certain companies, whereas other investors find it confusing.

Supporters of the above phenomenon argue that the financial report reflects the issuer's or company's inevitable inflow or outflow of economic resource obligations and different times or levels of capital provision. These could be a possible wealth redistribution or rights dilution of potential capital providers, even when the occurrence of subsequent economic events (such as a successful IPO) completely erases the company's accumulated losses or the negative book value of its net assets due to a rise in fair value. However, current accounting standards stipulate that companies should classify the financial instruments as financial liabilities or equity because of their characteristics when issue such financial instruments. The subsequent remeasurement of the stock's value and recognition of the resulting profits and losses should be carried out accordingly. The relevant accounting standards do not include provisions for reclassification based on the probability of subsequent events, such as the possible success of an IPO.

Many people have questioned the accounting standards. Huang (2018) and Zhang (2020) argue that their requirements do not meet the principle of "substance over form," as convertible and redeemable preferred stock is only a "virtual liability," not debt in the traditional sense. Companies with successful IPOs only need to issue certain classes of shares to enable holders to convert preferred shares into common shares. This process does not require companies to pay cash or transfer assets to "liquidate" the "virtual liability" of preferred stock. Net assets increase with the reduction in or elimination of related "virtual liabilities," but cash flow does not decrease. In addition, the transactions are between shareholders. They have nothing to do with the company even though the company has to issue additional shares for conversion, diluting ordinary shareholders' rights. Wang and Bao (2020) and Li (2020) suggest that the accounting standards make it too difficult for some investors to judge the company's business status and for the company to meet the strict requirements for listing on the mainland Chinese capital market.

4. Solutions to disputes about the financing instruments of new economy companies

The International Accounting Standards Committee (IASC) was established in 1973. Initially, the US did not support the IASC. However, the US began to consolidate its position as a global financial center after the Reagan administration, with a gradual shift toward economic liberalization, globalization, and financial modernization. An increasing number of foreign companies began to pursue listings in the US. At that time, foreign companies were required to convert their financial statements to US GAAP and reconcile differences in net profit and net assets between their local GAAP and US GAAP to go public in the US. Initially, the US capital market regulator, that is, the SEC, and US investors had difficulty acting on financial information based on US GAAP and other accounting standards. In response, the US began to participate more actively in the international effort to harmonize accounting standards, supporting the IASC's work in formulating International Accounting Standards (IAS) and promoting the IAS through the International Organization of Securities Commissions. In the 1990s, the US lobbied the IASC to publish a series of accounting standards for financial instruments following the newly established US GAAP.

One standard, IAS 32, has the following three features. (1) It is based on the basic equation of "assets = liabilities + owner's equity" and the basic concepts of the two categories on the right side of the balance sheet. (2) It accepts "owner's equity" as residual or "owner's equity = assets – liabilities." The accounting standards for assets and liabilities are much more complicated due to the residual, while the accounting standards for owner's equity are simple. For example, there are detailed standards for different assets and liabilities, initial and subsequent measurements, and presentation and disclosure of the assets and liabilities. The accounting standards provide few requirements for owner's equity. Equity is the indirect consequence of the recognition and measurement of assets and debts. Accounting standards do not have to regulate owner's equity because company laws or securities laws in most countries already regulate owner's equity. (3) IAS 32 is rule-based. It has more exceptions and exemptions because it is based on US GAAP. The basic principles of IAS 32 cannot be changed easily, although they encounter many problems in practical application. It is difficult to deduce proper solutions based on the previous principles and rules.

For the aforementioned reasons, after the IASB was reorganized from the IASC in 2001, it has made several efforts to revise IAS 32 and related basic accounting theories comprehensively, as follows. (1) The IASB conducted joint projects with the Financial Accounting Standards Board (FASB) on financial instruments from 2006 to 2010. (2) From 2012 to 2018, the IASB attempted to revise basic concepts and principles related to financial instruments with characteristics of equity in its conceptual framework project. (3) the IASB relaunched a research project on financial instruments with characteristics of the equity from 2016 to 2019. In addition, the IASB has made several small-scale amendments to IAS 32 in response to requests from various parties dating back to 2001. A few projects were successful, but most failed. The successful revision passed but with a number of "nays," indicating its controversial nature.

We build on the history of the revisions to consider ways to make the financial information on new economy companies' convertible and redeemable preferred shares less ambiguous.

4.1. Should convertible and redeemable preferred shares be classified as equity from the perspective of their redemption rights?

IAS 32 is based on the premise that companies should recognize their contractual obligation to deliver cash or other financial assets as a liability. On this basis, the standard has resulted in a series of detailed rules and exceptions on nonderivative and derivative instruments. Before 2007, the IASB received many questions about puttable instruments and whether they should be classified as liabilities or equity. A puttable instrument is a financial instrument that gives its holder the right to put the instrument back to the issuer for cash or other financial assets. It could also be a financial instrument that is automatically put back to the issuer in the occurrence of an uncertain future event or the death or retirement of the holder (IAS 32). Puttable instruments can occur in the following situations: (1) a company, in the form of a cooperative, grants its members or shareholders the right to redeem their shares in the event of retirement or resignation; (2) after an infrastructure project that takes the form of a project company, as the company will be dissolved and the remaining assets are distributed to shareholders at the end of the project; and, (3) after an unsuccessful IPO and similar conditions, as high-tech companies give their preferred shareholders the right to put back their shares to the issuers. Holders and issuers frequently found it difficult to reach a consensus on the practice of puttable instruments before 2007, as their regulation varied greatly by entity. At the request of the parties, the IASB revised IAS 32 in 2008 and added the following exception: puttable instruments should be classified as equity instruments if they meet the definition of financial liabilities and the following criteria:

(a) The instrument entitles the holder to a pro-rata share of the entity's net assets in the event of the entity's liquidation. The entity's net assets are those assets that remain after deducting all other claims on the entity's assets. A pro-rata share is determined by dividing the entity's net assets on liquidation into units of equal amount and multiplying that amount by the number of units held by the financial instrument holder (IAS 32).

(b) The instrument is in the class of instruments that is subordinate to all other classes of instruments. To be in such a class, the instrument must have no priority over other claims to the assets of the entity on liquidation and not require conversion into another instrument before it is in the class of instruments that is subordinate to all other classes of instruments (IAS 32).
(c) All financial instruments in the class of instruments that is subordinate to all other classes of instruments have identical features. For example, they must all be puttable, and the formula or other method used to calculate the repurchase or redemption price is the same for all instruments in that class (IAS 32).
(d) Apart from the contractual obligation for the issuer to repurchase or redeem the instrument for cash or another financial asset, the instrument does not include any contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the entity, and it is not a contract that will or may be settled in the entity's own equity instruments as set out in the definition of a financial liability (IAS 32).
(e) The total expected cash flows attributable to the instrument over its life are based substantially on profit or loss, the change in recognized net assets, or the change in the fair value of the recognized and unrecognized net assets of the entity over the life of the instrument (excluding any effects of the instrument) (IAS 32).

This revision is very controversial. IASB members from the US and South Africa voted against it. The reasons include the following: the revision violates the conceptual framework and classifies financing instruments that meet the definition of liabilities as equity; it does not treat financial instruments that meet the definition of liabilities as equity in the name of exceptions; and the revision cannot produce more relevant, understandable and comparable information (IAS 32).

New economy companies' convertible and redeemable preferred shares do not meet the above specific criteria, so they cannot treat their instruments as equity.

The IASB also faced a problem with puttable instruments that were non-controlling interests (NCI Put). NCI Put refers to the right granted by a company to its non-controlling shareholders to put their shares to the company or controlling shareholders under certain conditions. The IASB and its Interpretations Committee have discussed the matter numerous times since 2010. However, they have not resolved the issue because of a conflict between two standards: IAS 32 *Financial Instruments: Presentation* and IFRS 10 *Consolidated Financial Statements* reach opposite conclusions.

One stream of thought argues that the issuer should classify the instruments as liabilities and remeasure them at fair value, following IAS 32. Advocates of this approach also argue that the remeasurement difference during the period should goes to profit or loss. Their reasons include the following. (1) The issuer is contractually obligated to pay cash or other financial instruments at the agreed-upon price because they provide the financial instrument with the puttable right. (2) The use of financial instruments between controlling shareholders and non-controlling shareholders can involve many agreements. The transactions involved in the agreements cannot be considered transactions between the companies and their shareholders. Therefore, they should not be treated as equity. (3) The accounting for NCI Put and the accounting for any other puttable instruments should be consistent (the financing instruments with puttable rights discussed previously meet the definition of a liability and meet specific conditions to be treated as equity). (4) Classifying the instruments as liabilities, remeasuring them in accordance with relevant standards, and including the difference in remeasurement into equity creates another exception in IAS 32 that inevitably damages comparability.

Another group argues that the instruments should be classified as equity, and the results of remeasurement should be included in equity rather than profit or loss, following IFRS 10. Their reasons include the following. (1) IFRS 10 stipulates that non-controlling equity is part of equity. Therefore, from the perspective of consolidated statements, all transactions that affect the interests of noncontrolling shareholders should be considered transactions with the owners and should not affect profit or loss. (2) Including the value change of NCI Put into profit or loss would produce useless information. For example, the recognition of the change in the value of NCI Put that can be settled at the fair value of the underlying equity as profit or loss would produce

misleading information because the company as the issuer has to pay cash at fair value when the non-controlling shareholder exercises puttable rights. As a result, shares of the same value are obtained, though the company has no associated profit or loss. (3) NCI Put is different from simple contracts that include obligations to pay cash to third parties. The two should have different accounting requirements. Equity has the characteristics of equity prior to the exercises of the puttable right of equity. Therefore, it should be classified as equity.

The IASB has been unable to solve the problem because the two schools of thought are radically opposed, resulting in a divergence in practice. The practitioners of one school classify the instrument as a liability and include the periodical remeasurement difference in profit or loss, while the practitioners of the other classify the instrument as equity and include the periodical remeasurement difference in equity, and other methods in between. The IASB sought to solve the problem with a comprehensive revision of IAS 32 in 2016, but it failed. In September 2019, the IASB decided to abandon the original comprehensive revision plan and change the plan to a small-scope revision of IAS 32. Among possible revisions, there is the long-standing unresolved issue of NCI Put (IASB, 2019b). If the IASB launches this revision project in the near future, it would have to determine whether the scope of research is limited to NCI Put or includes other financing instruments' puttable rights. Specifically, it must decide whether to include the right to put shares to the issuer or the controlling shareholder; when a puttable right may be exercised; and whether the right is exercised at a fixed price, fair value, or some other price. Different scopes will cause different disputes. The exception that a puttable instrument could be classified as equity is a very narrow revision. The holders of the financing instruments involved in the exception were the companies' most subordinate equity holders. The remaining assets will be distributed in the same way as it was for ordinary shareholders. The method of distribution of residual assets will be the same as that of common shareholders when the company is liquidated.

4.2. Can the accounting standards for convertible and redeemable preferred shares be modified from the perspective of antidilution clauses?

The accounting standards for distinguishing between equity and liability have rule-oriented requirements, often called "fixed for fixed." Financial instruments that will or may be settled in the entity's own equity instruments should be classified as financial liabilities when they meet one of the following conditions: a non-derivative instrument for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments, or a derivative that will or may be settled other than by the exchange of a fixed amount of cash, or another financial asset for a fixed number of the entity's own equity instruments (IAS 32; CAS 37). However, the fixed for fixed rule-oriented accounting standard has been difficult to interpret and apply in complex financing agreements. Specifically, to what extent does the change in the number of exchanged equity instruments and cash or other financial assets violate the fixed for fixed rule, thereby changing the classification result between liabilities and equity? To this end, accounting standard setters have made various exceptions based on the fixed for fixed rule. The following are two examples.

During the 2008 financial crisis, HSBC sought to raise funds through capital markets to avoid failure, as it lacked capital. HSBC's revenue and profits were mainly from Asia because it was established in Hong Kong and Shanghai, and the financial crisis had little impact on the Asian market. HSBC decided to raise capital through right issue to its shareholders in the Hong Kong market. At that time, HSBC fixed the price and quantity for the right issue, which seemed to meet the principle of fixed for fixed. The placement of shares was settled in Hong Kong dollars, but the reporting currency of HSBC's headquarters was British pounds, so under the assumption that other conditions remained unchanged, changes in the exchange rate would cause changes in the amount of capital raised.

According to accounting standards, financing instruments should be classified as liabilities rather than equity and measured at fair value before the completion of the offering, and the remeasurement difference during the period should be included in the profit or loss. HSBC found the standard unreasonable and asked the IASB to explain whether its situation violated the fixed for fixed rule. Given the severe global financial crisis, the IASB went through a shortened process and made the following exceptions to the fixed for fixed rule in

IAS 32: rights, options, or warrants to acquire a fixed number of the entity's own equity instruments for a fixed amount of any currency are equity instruments if the entity offers the rights, options, or warrants pro-rata to all of its existing owners of the same class of its own nonderivative equity instruments (IAS32; CAS 37).

Another example is the share-based incentive plan. The share-based incentive plan is an important way for companies to encourage management and technical personnel to work harder for the benefit of shareholders. There are two types of share-based incentive plan based on the settlement tool, cash-settled or equity-settled. The former refers to a transaction that a company must pay cash or other assets based on the price of the share or other equity instruments for the purpose of obtaining services. The latter refers to a transaction in which a company uses equity instruments as the settlement tool based on the price of the share or other equity instruments for the purpose of obtaining services. Under the cash-settled share-based incentive plan, the company shall calculate the services obtained in the current period as the relevant asset cost or expense, and include it in liabilities based on the best estimate of the exercisable situation and the fair value of the liability, at each balance sheet date in the waiting period.

Under the equity-settled share-based incentive plan, companies should reasonably determine the fair value of the equity instruments granted to employees on the grant date. However, companies do not make a corresponding accounting treatment at that time. The company should obtain the current period value based on the best estimate of the number of available equity instruments on each balance sheet date based on the fair value of the equity instruments on the grant date during the waiting period between the grant date and the exercise date. The company should use the best estimate of the number of vesting equity instruments as the basis and the fair value of the equity instruments on the grant date to calculate the employees' service acquired in the cost of related assets or expenses and included in the capital reserve at each balance sheet date in the waiting period between the grant date and the vesting date. The companies will no longer adjust the recognized related costs or expenses and the total equity after the exercise date. The companies should calculate the amount of equity that should be transferred to capital based on the number of equity instruments exercised and transfer it into the capital on the exercise date. The amount included in the capital reserve during the waiting period is also transferred out to capital and share premium.

In summary, there are at least two differences between the two types of share-based incentive plans. (1) When cash settlement is used, it is treated as a liability; when equity settlement is used, it is treated as equity. (2) The recognized costs or expenses and liabilities have to be remeasured at fair value in a cash settlement. In an equity settlement, the companies no longer need to adjust the recognized costs or expenses and the total equity after the vesting date.

The equity-settled shared-based incentive plan changes the number and value of shares paid by the companies. According to the fixed for fixed rule, the equity-settled plan should not be treated as equity but as liability. However, the current accounting standards on the classification of liabilities and equity exclude share-based incentive plans from the scope of the standards. The IASB and FASB have had to discuss whether to include the share-based incentive plan each time they have started a financial instrument project with equity characteristics. The IASB and FASB have decided not to include it each time, even though there are significant differences between the accounting standards for the classification of liabilities and equity (IAS 32) and the accounting standards for the share-based incentive plan (IFRS 2).

New economy companies often raise multiple rounds of funding from venture capitalists, institutions, or funds before IPO. To balance the interests, rights, and obligations of the investors in each round, the agreement for each round of financing would contain various antidilution clauses. When the company's development prospects improved, each share's price in the new round of financing would rise; otherwise, it would decline. Table 6 shows the basic data of the rounds of preferred stock financing for Meituan and MI before their IPOs.

In addition, some characteristics of convertible and redeemable preferred stocks summarized in Appendix can be considered antidilution arrangements. For example, according to the conversion clause, when the preferred shareholders exercise the right, the value of the common shares that the company delivers will change with the stock price.

In September 2019, the IASB decided not to revise IAS 32 completely but with three small-scale projects. One project will determine how to apply the fixed for fixed rule in a situation with antidilution clauses. The

Table 6
Pre-IPO financing of Meituan and MI by preferred shares.

Preferred stock series	Issue date	Total number of preferred shares issued	Price per share (USD)	Capital raised (USD)
Meituan				
A-1 series	2013/11/07	11,111,111	0.4500	5,000,000
A-2A series	2014/01/28	41,730,994	1.0688	44,600,000
A-2B series	2014/01/28	144,444,444	0.7200	10,400,000
B series	2014/06/12	52,603,041	2.1767	114,500,000
C series	2015/01/09	34,457,408	5.5141	190,000,000
D series	2016/06/20	14,315,790	9.5000	136,000,000
MI				
A series	2010/09/28	410,000,000	0.0250	10,250,000
	2010/12/21			
B1 series	2010/12/21	243,103,448	0.1028	25,000,000
B2 series	2010/12/21	40,222,564	0.1454	5,850,000
	2011/04/11			
	2011/08/24			
C series	2011/09/30	43,023,587	0.5236	90,100,000
	2011/11/10			
	2012/03/29			
D series	2012/06/22	105,518,216	2.0471	216,000,000
	2012/12/21			
E1 series	2013/08/05	21,277,676	3.7598	80,000,000
E2 series	2013/08/05	4,264,064	4.6904	20,000,000
F1 series	2014/12/23	48,787,104	20.1682	983,950,000
	2015/03/25			
	2015/07/03			
	2017/08/24			
F2 series	2014/12/23	8,376,037	17.9273	150,160,000

Source: These Companies' Prospectus.

IASB should determine the scope of the revision, including whether it includes convertible and redeemable preferred shares with antidilution clauses, if it launches the small-scale revision project in the near future. The antidilution clause stipulates the rights and obligations of the capital providers of companies in different periods. The result will lead to the transfer of wealth between the capital providers. With the acceleration of financial innovation, accounting standard setters will face a dilemma. Amendments with a narrow scope could make it difficult to solve practical problems or create a gradual increase in exceptions and make accounting standards more rules-based. In contrast, an amendment may be too difficult to apply if it is too principled. As a result, people will ask for more guidance, similar to the embarrassment when the IASB issued the "Discussion Paper-Financial Instruments with Characteristics of Equity" in 2018. In it, the IASB proposed that the issuer should classify the financial instrument as a financial liability, and vice versa as equity, if the financial instrument has one or two of the following characteristics: First, a time feature; the instrument includes an unavoidable contractual obligation that requires the transfer of economic resources at a specified time other than at liquidation. Second, an amount feature; the instrument's amount is independent of the entity's available economic resources. All parties had more positive opinions of the time feature. They were generally more concerned about the amount feature, including whether they were consistent with the conceptual framework. The professional terminology still needs further clarification, which may require major changes in standards and practices.

4.3. Can reporting as a mezzanine equity solve the problem?

Chinese new economy companies listed in Hong Kong should classify convertible and redeemable preferred shares as financial liabilities measured at fair value with changes in fair value recognized in profits and losses. In contrast, Chinese companies listed in the US can classify the financing instruments as mezzanine equity in accordance with US GAAP and securities regulations, as shown in Table 7.

Table 7
Disclosure of mezzanine equity of Chinese companies listed in the US market (in billion RMB).[a,b]

	iQIYI		Pinduoduo		Bilibili		JD		Tuniu	
	IPO	2018	IPO	2018	IPO	2018	IPO	2014	IPO	2014
Mezzanine equity	22.60	0.00	2.20	0.00	4.02	0.00	7.17	0.00	0.72	0.00
Net income	−3.74	−9.06	−0.53	−10.22	−0.18	−0.57	−0.05	−5.00	−0.08	−0.45
Total equity	−14.32	18.16	−0.99	18.82	−1.94	7.19	2.07	37.50	−0.43	1.41
Total liabilities	11.92	26.60	12.11	24.36	1.40	3.30	16.77	29.00	0.78	1.24
Total assets	20.20	44.76	13.32	43.18	3.47	10.49	26.01	66.49	1.08	2.65

Source: These Companies' Prospectus & Annual Report.
[a] For companies that disclose mezzanine interests, total assets = total liabilities + mezzanine equity + total equity.
[b] Although in the balance sheet, the company discloses convertible and redeemable preferred shares as mezzanine equity, in subsequent measurements, the instrument is still treated as a financial liability.

Can Chinese accounting standards that converge with IFRS adopt regulations similar to the US? The IASB and FASB joint project, the IASB's two projects on financial instruments with equity characteristics, and the IASB's attempt to revise the concepts and principles related to hybrid instruments in its conceptual framework project prove that the conclusion is negative.

4.3.1. 2006–2010 IASB and FASB joint project: Financial instruments with equity characteristics

As part of the joint efforts to promote the international convergence of accounting standards, the IASB and FASB launched a project on financial instrument with characteristics of equity beginning in 2006. To this end, the FASB (2007) discussed three approaches: basic ownership, ownership-settlement, and reassessed expected outcomes. The FASB preferred the first approach because it was the easiest and would classify the fewest instruments as equity, which could prevent the structuring of contracts for specific accounting purposes. Soon, the IASB (2008) also issued a discussion paper. In this document, the IASB emphasized that the greatest difference between IAS 32 and the FASB preliminary view is as follows: according to IAS 32, the owner's equity is the residual item, which is the net amount after recognition and measurement of assets and liabilities, while the FASB preliminary view attempts to define equity separately and, on this basis, proposes the principles of recognition, measurement, presentation and disclosure. The IASB did not make its own claims in the document but analyzed how the IAS 32 would be revised according to FASB's initial ideas. Then, the two organizations spent more than two years in discussion. However, they decided to suspend the project in 2010. The main reasons were the following. (1) Unlike the IFRSs and US GAAP at that time, the FASB proposed a comprehensive reform plan based on the definition of owner's equity, which stakeholders do not accept. (2) The FASB favored the basic ownership approach to minimizing the owner's equity, which was different from the US GAAP and IFRS at the time. Adopting the FASB's proposal would require reclassifying many equity instruments as liabilities based on the two sets of standards at that time and determine the corresponding accounting principles, which could have greatly affected practice. As a result, the two organizations engaged in intense discussions on whether to reclassify certain hybrid instruments as liabilities or equity and which instruments would still be subject to exceptions or excluded from the project (e.g. share-based incentive plans). The organizations had difficulty reaching a consensus. (3) The two organizations hoped to focus their efforts on standards that were conducive to the US's decision to adopt IFRSs in 2011 or standards that needed urgent revisions following the 2008 global financial crisis, such as financial instruments, leases, insurance contract, fair value measurement, and consolidated financial statements.

4.3.2. 2012–2018 IASB's conceptual framework revision projects

In response to strong appeals from its stakeholders, the IASB included a project to revise its conceptual framework as a priority item on its 2012 midterm work plan. The project included the study of basic concepts and accounting principles related to financial instruments with characteristics of equity. When the IASB first

discussed the issue, it excluded the mezzanine instrument option and adhered to the dichotomy between debt and equity. The IASB issued a discussion paper on revising its conceptual framework in 2013, which discussed improving the accounting principles of the instruments from the perspective of element definition and presentation (IASB, 2013). However, the IASB decided to remove the content from the conceptual framework project and restart a project that comprehensively revised financial instruments with characteristics of equity. It then considered whether and how to revise the relevant content in the conceptual framework based on the project results. There were two main reasons for this decision. First, the instruments' basic concepts and principles were far more complicated than originally estimated, and the disputes between the parties could have been protracted, which would have made it difficult to complete the revision within the five-year period. Second, the IASB gradually reached a consensus during its discussion on how to revise the conceptual framework. The conceptual framework was to be "constitutional" and not very specific. A solution for the basic concepts and principles of such financial instruments was bound to complicate the constitutional form. The majority of IASB members supported the decision, but a few members voted against it. The opponents believed that a large number of issues related to hybrid instruments would remain unresolved for years because people interpret related basic concepts and principles differently. The IASB should use the opportunity to revise the conceptual framework to solve the related issues.

4.3.3. 2016–2019 IASB's new project on financial instruments with characteristics of equity

In 2016, the IASB reactivated the project on financial instruments with characteristics of equity. At the beginning of the project, the IASB reiterated the dichotomy between liability and equity and discussed the scope of liabilities and equity based on the classification. It chose a plan with a medium scope of liabilities. After two years of research, the IASB issued a discussion paper (IASB, 2018b). Under the premise that IAS 32 would be largely unchanged, the IASB's goals for the project were as follows: (1) use a clearer theory to clarify the basic principles of classification; (2) improve the consistency, completeness, and clarity of the guidelines; and (3) improve the presentation and disclosure requirements of related tools. Unfortunately, the majority of comments on the paper were relatively negative. In September 2019, the IASB discussed five approaches on how to continue the project. It initially decided to adopt a plan comprising three small-scale amendments to IAS 32.

Classifying convertible and redeemable preferred shares and other hybrid instruments as mezzanine instruments could provide some additional information but would not solve the basic problems of the classification, measurement, presentation and disclosure of the instruments themselves. The basic problems are the following. Are the instruments financial liabilities or equity? How can they be distinguished from other financial liabilities or equity instruments? Should they still be measured at fair value? Is the fair value change recognized in profits and losses, OCI, or shareholder's equity? The discussion draft issued by the IASB (2018b) offered some suggestions for improving presentation and disclosure. Some of the suggestions were supported by the IASB's stakeholders, such as the separate presentation of some liabilities in the balance sheet and disclosure of the order of settlement of financial instruments. Other suggestions were rejected, such as apportioning profit or loss and comprehensive income to different types of equity holders (i.e. preferred shareholders, minority shareholders, and controlling shareholders) according to a certain method or redistributing the entire shareholders' equity to different types of shareholders. Some suggestions were controversial, such as reflecting the income and expenses of some instruments in OCI. If the IASB discusses the recommendations in a future revision of the IAS 32 project, it should first determine whether to study the problem as a recognition and measurement issue or a pure presentation and disclosure issue, and whether to minimize or maximize equity or somewhere in between. Small-scale revisions cannot solve the two issues.

4.4. Can it be reclassified according to the possibility of conversion?

The IFRSs allow or require the reclassification of assets or liabilities in certain circumstances. IFRS 9 stipulates that financial assets with basic borrowing characteristics must be classified, based on the business model, as an amortized cost, fair value through profit or loss (FVTPL), or fair value through other comprehensive income (FVOCI) after passing the sole payments of principal and interest test. If the company's business model changes, the classification and measurement principles should change accordingly. IFRS 9

strictly defines business models and their changes to prevent companies from arbitrarily manipulating profits. However, IFRS 9 clearly stipulates that financial liabilities should not be reclassified under any circumstances.

The classification and measurement principles for the new economy companies' convertible and redeemable preferred shares are determined with agreed-upon terms at the time of issuance. In most cases, the companies' IPOs fail, so they are forced to pay cash or other financial instruments before the agreed expiry date. Nevertheless, some companies develop well and have successful IPOs. With this in mind, the standard could be revised to allow or require the reclassification of the instruments under certain conditions. The financing instruments could be classified as financial liabilities at an early stage and measured at FVTPL but reclassified as equity when certain conditions are met, such as prior to a successful IPO. The advantage of this treatment is that it can better reflect the "debt nature" of the instruments in early stages and better reflect the "equity nature" of the instruments in later stages. However, the revision would violate the basic accounting principles stipulating that the initial classification of liabilities and equity should not consider uncertainty and that financial liabilities cannot be reclassified. There are other questions to consider. What are the conditions for reclassification? Is it principle-based or rules-based? If it is rules-based, is it necessary to stipulate a probability level as a condition for reclassification, such as the probability of a successful IPO? If this is the case, a further issue is whether to reclassify instruments that have been reclassified as equity into liabilities if the company's IPO fails.

4.5. Can changes in the fair value of convertible and redeemable preferred shares be recognized in OCI?

The operating performance of new economy companies may turn profitable and lead to rapid growth in revenues and profits. However, the convertible and redeemable preferred shares could harm financial performance as a result. The better the operating performance is, the higher the conversion or redemption price, and the higher the value of the liabilities, and the greater the losses. Companies such as MI and Meituan had considerable negative net asset values before their IPOs. However, their preferred stockholders will certainly convert the preferred stock into common stock following a successful IPO. The company's negative net accumulated assets would be erased by the capital reserve formed from the high stock premium. The companies will no longer experience losses in book value caused by changes in the fair value of the instruments if the preferred shares are no longer issued after the IPO.

Can these fair value changes be included in OCI following the provisions of IFRS 9 on certain special financial liabilities? Based on its contractual cash flow characteristics and the issuer's business model, this special financial liability should have been accounted for at amortized cost, but the issuers choose fair value option to reduce or eliminate accounting mismatches, that is, the liabilities would be accounted for at FVTPL. When the IASB formulated new financial instrument standards in 2009, researchers suggested that the accounting standards would lead to puzzling financial information. They argued that the credit ratings and the fair value of financial liabilities would rise when companies perform well. The rise would result in a book loss, as it would result in a book profit otherwise. Therefore, they hoped that the IASB could handle the matter properly. To solve the problem, the IASB (2010) proposed five approaches. In the end, the IASB adopted one of the proposals in IFRS 9 based on the opinions of all parties. The proposal allowed changes in fair value caused by such factors to be included in OCI and stipulated that the OCI could not be recycled to profit or loss in the future, even if the company paid off the debts in full. Some IASB members strongly objected to the proposal because the actual operability is low. It would likely become a tool for companies to manipulate financial data. In addition, some IASB members argued that the profit generated by an increase in asset value would offset the loss caused by an increase in the fair value of the liability if both sides of the balance sheet were measured at fair value and the company's performance was good. The IASB should use fair value to fully measure assets and liabilities rather than OCI as a tool to reconcile conflicts when the asset owner does not fully measure assets and liabilities at fair value. This could solve the problem, but it cannot truly reflect the impact on financial performance of the fair value option adopted by companies to reduce or eliminate accounting mismatches.

Can the fair value changes of convertible and redeemable preferred shares be included in OCI by referring to the above standards? In the last 10 years, the number of items that could be included in OCI in the IFRS has increased to nearly ten, including the situation discussed above. However, the IASB experienced intense

debate each time a decision had to be made. The IASB issued a revised conceptual framework in April 2018 that clearly stated, "the Board may decide **in exceptional circumstances** that income or expenses arising from a change **in the current value** of an asset or liability are to be included in other comprehensive income when doing so would result in the statement of profit or loss providing more relevant information, or providing a more faithful representation of the entity's financial performance for that period (IASB, 2018a)" (emphasis added). Any new idea that involves adding OCI will understandably lead to fierce debate because of the term "in exceptional circumstances" in the new conceptual framework.

The preferred shares discussed in this paper can be redeemed at fair value. They are subsequently measured at fair value according to current accounting standards, which is in line with the conceptual framework that stipulates that only OCI can be considered when measured at current value. The IASB's discussion paper on "Financial Instruments with Characteristics of Equity" in June 2018 (IASB, 2018b) suggested that income and expenses related to instruments that can be redeemed at fair value but do not meet the current standard's exceptions for puttable instruments should be included in OCI. However, the IASB's discussion paper was poorly received. As a result, the IASB decided not to continue its project and replaced it with a small-scope revision of the IAS 32 project in September 2019. The small revisions would not include financing instruments that can be redeemed at fair value but do not meet the current standard, except for puttable instruments. Therefore, the IASB should first discuss whether to include this instrument in the scope of the research and whether it should be limited to the instruments with "redemption at fair value" when it initiates the small scope revision of the IAS 32 project. Of course, the IASB will have to study problems with OCI, such as which related income and expenses are included in OCI, if it decides to use OCI to solve problems related to the financing instruments. Should the interest and dividends normally distributed by the issuer be included in OCI? Should OCI be recycled? If it can be recycled, when will it be recycled? How can the recycled amount be calculated? The IFRS can refer to precedent.

The advantage of using FVOCI when measuring instruments at a fair value is that the impact of the changes on the financial performance of the company can be clearly distinguished from the company's operating performance. There are several examples of non-recycled OCI in IFRS that prevent companies from manipulating profits through OCI. For example, IFRS 9 stipulates that equity investment can be designated to be FVOCI, but the company cannot transfer OCI to profit or loss when disposing. Another example is that the fair value changes related to a company's credit can be included in OCI when a company chooses fair value options to account for financial liabilities that should have been accounted for at amortized cost to reduce or eliminate accounting mismatches. However, the OCI cannot be recycled back to profit or loss. In addition, some OCIs cannot be recycled because it is difficult to determine the time and amount of reversal. The impact of changes in actuarial assumptions on the remeasurement of a defined benefit retirement plan should be included in OCI but cannot be recycled. According to the newly revised financial reporting conceptual framework, current value measurement changes should not be included in OCI (IASB, 2018a).

The convertible and redeemable preferred shares discussed would only change when the holder converts shares, the issuer redeems shares, or the company is liquidated. The timing of the reversal of OCI would not be unclear and companies would not be able to dispose of preferred stocks to manipulate financial results. Therefore, OCI has no basis not to recycle the profits and losses in the above three cases. The reversal would reflect the company and its management's operating performance more accurately–especially when the company has to redeem the preferred stocks after a failed IPO and preferred shareholders would have priority in the distribution of residual assets during liquidation. The advantage of non-recycle is that it can reflect the characteristics of equity transactions between preferred shares and common shares shareholders more accurately, especially when the company has a successful IPO and it can convert preferred shares into common shares.

4.6. Is it a better choice to provide alternative performance measures?

The formulation of accounting standards will always experience disputes as business becomes more complex. Even if standards are issued, the information provided may not necessarily meet the needs of certain financial information users. In the last three decades, many companies have begun to provide various alter-

Table 8
Alternative performance measures disclosed by Hong Kong-listed Chinese new economy companies (unit: billion RMB).

	MI		Meituan		Yixin		Meitu		Inke	
	IPO	**2018**	**IPO**	**2018**	**IPO**	**2017**	**IPO**	**2016**	**IPO**	**2018**
GAAP earnings	−43.89	13.48	−18.99	−115.49	−1.40	−18.34	−2.22	−6.26	−0.24	1.10
Increase										
Change in fair value of convertible and redeemable preference shares	54.07	12.38	15.14	104.61	1.43	17.70	1.48	5.61	1.03	0.00
Issuance cost of convertible and redeemable preferred shares	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.04	0.00	0.00
Share-based compensation	0.91	0.00	0.97	1.87	0.01	0.91	0.02	0.04	0.00	0.01
Amortization of intangible assets arising from M&A	0.00	0.01	0.33	0.66	0.03	0.13	0.00	0.00	0.00	0.00
Impairment of goodwill	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.04	0.24	0.00	0.02	0.05	0.00	0.05	0.00	0.00
Decrease										
Gain or loss on the change of investment fair value	−5.73	−4.84	−0.54	−1.83	0.00	−0.01	0.00	0.00	0.00	0.00
Change in fair value of convertible and redeemable preference shares	0.00	−12.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	−0.52
Gain or loss on the sale of investments and subsidiaries	0.00	0.00	0.00	−0.03	0.00	0.00	0.00	0.00	0.00	0.00
Fair value of long-term investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	−0.01	0.00	0.00
Non-GAAP earnings	5.36	8.56	−2.85	−8.52	0.10	0.46	−0.71	−0.54	0.79	0.60

Source: These Companies' Prospectus & Annual Report.

native performance measures in their financial reporting. Alternative performance measures are based on the net profit or loss measures specified by the accounting standards, adjusted for factors that have no cash consequences, are not directly related to operating performance, or cannot reflect continuous profitability. Alternative performance measures can compensate for lack of financial information to a certain extent so that users can make more appropriate assessments of the company's performance and value and better decisions, as a result (Jia et al., 2019).

Clinch et al. (2018) study the adjustment frequency and development trend of alternative performance measures in certain countries from 2005 to 2013. They find that the frequency growth rate reached 171% in Australia and 100% in Sweden. The UK had the highest frequency in the sample with 64%, followed by France with 54%. Their findings show that companies tend to report good news but not bad news when alternative performance measures are not regulated. In other words, the net profit calculated in accordance with accounting standards would be adjusted upwards rather than downwards or increased more often than decreased. To this end, the US SEC and EU securities market regulators have strengthened the supervision of the disclosure of alternative performance measures.

Table 8 summarizes the alternative performance information provided in the prospectus and first-year annual reports of some Chinese new economy companies listed in Hong Kong. The item with the largest increase was the change in the fair value of convertible and redeemable preferred shares. Among them, MI increased by 54.07 billion yuan in the prospectus and increased by 12.38 billion yuan and reduced by 12.51 billion yuan in its 2018 annual report. Meituan increased by 15.14 billion yuan in its prospectus and increased by 104.61 billion yuan in its 2018 annual report.

The literature on alternative performance indicator disclosures is expanding as their use becomes more common. Studies provide a range of information. For instance, Lougee and Marquardt (2004) find a negative correlation between unexpected earnings and the adjustment of alternative performance measures, which shows that companies use alternative performance measures to smooth their earnings and make their financial results more attractive to investors. The study also finds that companies with lower net profits under the original accounting standards are more likely to disclose alternative performance measures. This phenomenon is more pronounced in high-tech industries where information asymmetry is more serious. Marques (2006) reports that the decision to disclose alternative performance measures did not affect the value relevance of corporate earnings during the time when the US SEC lacked regulations on the disclosure of alternative performance measures. However, the earnings of companies that disclosed alternative performance measures showed a stronger value relevance after the US SEC strengthened supervision. Barth et al. (2012) observe that some companies chose to disclose alternative performance measures that deduct share-based incentive expenses because they increased earnings. Analysts only removed the share-based incentive portion of the alternative performance measures when the share-based incentive fee could not effectively predict the company's future performance. This shows that the alternative performance measures provided by the latter were of a higher quality. Doyle et al. (2013) show that companies used alternative performance measures to meet analysts' expectations after controlling their accrual and actual earnings management levels. This phenomenon was more pronounced in companies with a smaller earnings management space. This indicates that companies use alternative performance measures to achieve analysts' performance targets. Leung and Veenman (2018) report that loss-making companies excluded the components of net profit that cause losses and do not have information content when disclosing alternative performance measures, so the adjusted alternative performance measures had a stronger predictive ability for future earnings. In addition, loss-making companies that disclose alternative performance measures would perform better in the future, and investors did not overvalue them. This shows that alternative performance measures help investors eliminate unnecessary information and effectively reduce information asymmetry.

Developments in this area have attracted the attention of the IASB. The IASB's exposure draft, "General Presentation and Disclosure," issued in December 2019, discussed the disclosure of alternative performance measures. The draft recommended that companies disclose relevant information in the statement's notes and it proposed specific disclosure requirements (IASB, 2019a). Alternative information disclosures will become a widely accepted practice if the draft is accepted and converted into the IFRS, which would improve the comparability, consistency, and understandability of the information. The Chinese accounting standards

setters will follow the IASB standards once they are passed, as China is implementing a policy of convergence with IFRS. Prior to their passing, Chinese accounting standards setters, securities regulatory agencies, and stock exchanges should consider requiring or allowing companies to use the supplementary disclosure before the IASB standards are passed to alleviate confusion about the financial information of convertible and redeemable preferred shares.

5. Conclusion

New economy companies at an early stage of growth are high risky. They have light assets, low survival rates or short lives, long-term losses, and unclear development prospects. As a result, they have difficulty raising capital from traditional channels. Indirect financing is difficult because banks either refuse to lend or charge high interest rates. Raising capital in the form of common stock is also difficult. Investors are unwilling to invest because the returns may be unstable or impossible to collect. Therefore, many new economy companies use convertible and redeemable preferred stock financing before IPOs as a financing tool. This tool also allows new economy companies to frame a multilayer equity structure and solve corporate governance problems.

According to current accounting standards, new economy companies should classify convertible and redeemable preferred shares as financial liabilities and measure them at fair value. Changes in fair value during a given period are directly entered into current profits and losses.

The current accounting standards could lead to confusing financial information. A new economy company experiences higher losses during its development when its stock redemption or conversion price is higher, which can result in a substantial negative net asset value, especially before an IPO. This sizable loss and negative net asset value could be completely offset when the company successfully goes public at a high premium and converts the preferred stock into common stock.

Convertible and redeemable preferred shares are financing tools that have equity features. They have always been a problem in accounting practice, theory, standards, and supervision. This is largely because the relevant accounting standards have a clear rules-based tendency, and there are more exceptions and exemptions. Therefore, the basic accounting principles cannot be easily changed and reasonable solutions to complex problems cannot be easily deduced from the preceding principles and rules in a specific application. In the last 10 years, the IASB and FASB have launched three projects to comprehensively revise relevant accounting standards, but all have failed to create change. The IASB has also initiated a number of small-scale revisions to the guidelines, resulting in both successes and failures.

Based on the history of comprehensive and small-scale revisions to the accounting standards, this article analyzes possible ways to eliminate the confusion of convertible and redeemable preferred shares and proposes possible problems and solutions that can be referenced by various accounting standards-setting agencies and stakeholders. The various problems discussed in this article and the ways to solve the problems are not independent of each other. They can be considered comprehensively when accounting standards are revised.

The financial information of convertible and redeemable preferred shares will be difficult to clarify by revising relevant accounting standards because a revision of the relevant financial standards is itself a complex endeavor. According to Clor-Proell et al. (2016), sufficient information disclosure could also help users make decisions. Therefore, standardizing the disclosure of alternative performance measures may be the easiest option.

Declaration of Competing Interest

None.

Appendix A. Main features of convertible and redeemable preferred shares of new economy companies

Company	Dividend rights	Conversion rights	Redemption rights	Liquidation preferences
MI	The right to receive noncumulative dividends plus accrued interest at 8% of the original issue price.	From July 3, 2015, when MI succeeds in its IPO or if more than 50% of its holders request the conversion, it can be converted into ordinary shares at the effective conversion price.	From December 23, 2019, all preferred shares will be redeemed at the price of the higher of the issue price plus 8% accrued interest and the fair value of preferred shares.	The right to receive the remaining equity in priority at the time of liquidation based on the issue price plus accrued or declared unpaid dividends or 110% of the issue price. The holder has the right to receive the remaining equity in priority over the holders of ordinary shares if the remaining equity available for distribution is not sufficient to pay the compensation for the preferred stock.
Meituan	If the company declares 8% noncumulative dividends every year, it must first pay the shareholders of series C and series B, then the shareholders of series A from A-12 to A-1, and then the ordinary shareholders.	Convert preferred stocks into common stocks at any time after the issuance date at an initial conversion ratio of 1:1; preferred stocks will be automatically converted into common stocks at the applicable conversion price after IPO or on the date agreed by most preferred stockholders.	The shares can be redeemed in the agreed-upon method between the board of directors and the shareholders.	Holders of series B and C can receive the higher of the following two settlement fees: (1) 120% of the series B and C issue price plus declared but unpaid dividends; (2) if the B and C series have been converted to ordinary shares, the amount payable is 100% of the issue price of series A plus the declared but unpaid dividends. If the remaining assets are not sufficient to fully pay the preferred stock compensation, the remaining assets shall be distributed to preferred shareholders in proportion.

(*continued on next page*)

Appendix A (*continued*)

Company	Dividend rights	Conversion rights	Redemption rights	Liquidation preferences
Yixin	If the company declares 8% noncumulative dividends every year, it must first pay the shareholders of series C, series B, series A, and then ordinary shareholders.	When the company is publicly listed or more than 75% of A to C series holders require it, preferred shares will be converted into ordinary shares at the then effective conversion price.	After five years from May 11, 2017 and before the company's IPO, the holders have the right to request that the company redeem all of its preferred shares at any time. The redemption price is equal to the issue price plus 8% of the annual dividend and any accrued unpaid dividends.	The right to receive preferential compensation at the time of liquidation based on the higher of the following two: (1) dividends calculated by adding 8% of the issue price and accrued unpaid dividends; (2) preferred stockholders and common stock shareholders distribute the remaining assets proportionally. If the remaining assets are not sufficient to pay the compensation for the preferred shares, the remaining assets shall be distributed to the preferred shares in proportion.
Meitu	The company has the right to receive dividends at a rate of 8% of the issue price per share each year, and such distributions are not cumulative.	When the company is publicly listed, or more than a majority of holders' request redemption, preferred shares will be converted into ordinary shares at the effective conversion price.	If the company fails to go public before April 19, 2020, the company and its founders violate the law or seriously affect the normal operation of the company, or a series of investors request to redeem the preferred shares, the company must redeem all preferred shares at the issue price plus 8% accrued interest and unpaid dividends.	The right to receive the remaining assets based on the issue price plus the declared but unpaid dividends at the time of liquidation. If the remaining assets are not sufficient to fully pay the preferred stock compensation, the remaining assets shall be distributed to preferred shareholders in proportion.

(*continued on next page*)

Appendix A (*continued*)

Company	Dividend rights	Conversion rights	Redemption rights	Liquidation preferences
JD	Prior to the issuance of Series B preferred shares, the holders of the series A and A-1 preferred shares shall be entitled to receive, on an annual basis, preferential, noncumulative dividends at the 8% of the issue price, and such dividends shall be payable if declared by the board of directors.	Each preferred share is convertible at the option of the holder at any time after the date of issuance, and each preferred share is convertible into one ordinary share.	The preferred shares are redeemable if (i) the group failed to consummate a first qualified IPO by the end of the year 2013, or (ii) there is a material breach by any of the entities or the founder, subject to the applicable laws of the British Virgin Islands, and if so requested by holders of at least 50% of the series A and A-1 preferred shares. The redemption price was to have been equal to the higher of (i) or (ii) below: (i) Issuance price × (108%)N, "N" means a fraction the numerator of which is the number of calendar days from the date on which the series A, A-1 and B preferred shares were issued up to the date on which such preferred shares are redeemed and the denominator of which is 365. (ii) the fair market value of series A, A-1 and B at the redemption date.	The holders of the series A, A-1 and B shall be entitled to receive an amount equal to 120% of the original purchase price plus all declared but unpaid dividends, while the holders of the series C shall be entitled to receive an amount equal to 100% of the original purchase price plus all declared but unpaid dividends. In association with the issuance of the series C in 2010, the series A, A-1 and B holders waived their liquidation preference rights and ranked pari passu with the ordinary shareholders.

Source: Companies' Prospectuses

References

Barth, M.E., Gow, I.D., Taylor, D.J., 2012. Why do pro forma and street earnings not reflect changes in GAAP? evidence from SFAS 123R [J]. Rev. Acc. Stud. 17 (3), 526–562.

Barth, M.E., Hodder, L.D., Stubben, S.R., 2013. Financial reporting for employee stock options: Liabilities or equity? [J]. Rev. Acc. Stud. 18 (3), 642–682.

Bispo, A., Sarlo, A.S., Viera, J., 2016. The effect of balance sheet classification of compound financial instruments on the judgment of securities market analysts. Work. Paper.

Clinch, G., Tarca, A., Wee, M., 2018. The value relevance of IFRS earnings totals and subtotals and non-GAAP performance measures [J]. Available at SSRN 3178567.

Clor-Proell, S., Koonce, L., White, B., 2016. How do experienced users evaluate hybrid financial instruments? [J]. J. Account. Res. 54 (5), 1267–1296.

Doyle, T.J., Jennings, J.N., Soliman, M.T., 2013. Do managers define non-GAAP earnings to meet or beat analyst forecasts? [J]. J. Account. Econ. 56 (1), 40–56.

DT Finance, 2020. We pick up the "causes of death"of 5,000 startups and teach you how to burn all investors' money [EB/OL]. https://baijiahao.baidu.com/s?id=1655787754301701294&wfr=spider&for=pc. (in Chinese).

Financial Accounting Standards Boards. (2007). Preliminary Views—Financial Instruments with Characteristics of Equity [Z].

Fargher, N., Sidhu, B.K., Tarca, A., Van Zyl, W., 2019. Accounting for financial instruments with characteristics of debt and equity: finding a way forward. Account. Finance 59 (1), 7–58.

Godfrey, J., Chalmers, K., Navissi, F., 2010. The systematic risk effect of hybrid security classification [J]. Int. Rev. Bus. Res. Papers 6 (5), 110–124.

Hopkins, P.E., 1996. The effect of financial statement classification of hybrid financial instruments on financial analysts' stock price judgments [J]. J. Account. Res. 34, 33–50.

Huang, S., 2018. Identification of the nature of preferred shares, accounting treatment and analysis of economic consequences—a case study based on Xiaomi's financial report [J]. Finance & Account. 10, 6–9 (in Chinese).

International Accounting Standards Board, 2008. Discussion Paper-Financial-Instruments with Characteristics of Equity [Z].

International Accounting Standards Board, 2013. Discussion Paper—Conceptual Framework for Financial Reporting [Z].

International Accounting Standards Board, 2018a. Conceptual Framework for Financial Reporting [Z].

International Accounting Standards Board, 2018b. Discussion Paper—Financial Instruments with Characteristics of Equity [Z].

International Accounting Standards Board, 2019a. Exposure Draft—General Presentation and Disclosure [Z].

International Accounting Standards Board, 2019b. IASB meeting agenda paper 5—FICE—Key themes emerging from feedback [Z].

Jia, J., Zhang, W., Wang, C., 2019. The development of disclosure and rules of alternative performance measures and Chinese regulatory reaction—Based on the Jingdong and Apple case studies [J]. Account. Res. 5, 20–26 (in Chinese).

Kimmel, P., Warfield, T.D., 1995. The usefulness of hybrid security classifications: Evidence from redeemable preferred stock [J]. Account. Rev. 70 (1), 151–167.

Leung, E., Veenman, D., 2018. Non-GAAP earnings disclosure in loss firms [J]. J. Account. Res. 56 (4), 1083–1137.

Li, Na, 2020. The impact of the complication of financial instruments on the IFRSs-Taking the convertible and redeemable preferred shares of MI Group as an example [J]. Finance Account. International Commerce, 3: 26-29+33. (in Chinese).

Liu, H., Fan, L., Li, D., 2018. Does the government's regulatory burden reduce the survival probability of high-tech firms? Empirical analysis based on Micro-enterprise [J]. Collected Essays Finance Econ. 2018 (06), 96–103 (in Chinese).

Lougee, B.A., Marquardt, C.A., 2004. Earnings informativeness and strategic disclosure: an empirical examination of 'pro forma' earnings [J]. Account. Rev. 79 (3), 769–795.

Marques, A., 2006. SEC interventions and the frequency and usefulness of non-GAAP financial measures [J]. Rev. Account. Stud. 11 (4), 549–574.

Peasnell, K., 2013. Discussion of "Financial reporting for employee stock options: liabilities or equity" [J]. Rev. Acc. Stud. 18, 683–691.

Wang, Y., Bao, R., 2020. Recognition and measurement of convertible redeemable and preferred shares—Thinking about the accounting treatment of convertible redeemable preferred shares of MI Group [J]. Friends Account. 5, 133–137 (in Chinese).

Zhang, R., 2020. Accounting treatment of convertible and redeemable preferred shares and its impact—Based on financial analysis of M group [J]. Account. Learn. 8, 261–262 (Chinese).

Further reading

European Finance Reporting Advisory Group, 2016. What do we really know about goodwill and impairment? A quantitative study. [Z]. 37-50.

International Accounting Standards Committee, 1995. IAS 32—Financial Instruments: Presentation [Z].

International Accounting Standards Board, 2004. IFRS 2—Share-based Payment [Z].

International Accounting Standards Board, 2014. IFRS 9—Financial Instrument [Z].

International Accounting Standards Board, 2011. IFRS 10—Consolidated Financial Statements [Z].

International Accounting Standards Board, 2010. Exposure Draft—Fair Value Option for Financial Liabilities [Z].

Ministry of Finance of the People's Republic of China, 2007. CAS 37—Presentation of Financial Instruments [Z]. (in Chinese).